



Assessing the Impact of the Insurance Sector in Nova Scotia

An economic footprint analysis

Prepared for:
GREATER HALIFAX PARTNERSHIP
and
NOVA SCOTIA BUSINESS INC.

Prepared by:
THE CONFERENCE BOARD OF CANADA

MARCH 2010

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Preface

This research was undertaken by The Conference Board of Canada for Greater Halifax Partnership and Nova Scotia Business Inc. In keeping with Conference Board guidelines for financed research, the design method of research, as well as the content of this study, was determined by the Conference Board. The research was conducted by Pedro Antunes, Director of the Board’s National and Provincial Forecasting group, and Alicia Macdonald, Economist, Economic Forecasting and Analysis.

About the Conference Board

The Conference Board of Canada is the foremost independent, not-for-profit applied research organization in Canada. We help build leadership capacity for a better Canada by creating and sharing insights on economic trends, public policy issues, and organizational performance. The Board’s Economic Forecasting and Analysis division employs more than 25 professional economists, who bring together knowledge across regions and sectors in producing their forecasts. The forecasting group constructs and maintains econometric models of the national and regional economies and a one-of-a-kind, comprehensive quarterly database of the provincial economies in Canada. The Conference Board of Canada was established in 1954, and is affiliated with the U.S.-based The Conference Board, Inc. that serves some 3,000 companies in 67 nations.

Executive Summary

The insurance industry is made up of life, health, and medical insurance; property and casualty insurance (including auto, home, and business); reinsurance providers; and insurance agencies and brokers. The primary objective of this study is to quantify the impact of Nova Scotia's insurance industry, property and casualty carriers (P&C), and agents and brokers network¹ on key economic indicators, such as gross domestic product (GDP), employment, income, and government revenues. Using standard techniques, this study generates an economic footprint analysis of the direct, indirect, and induced impacts attributable to the various components of Nova Scotia's insurance industry.

Insurance is essentially a mechanism for spreading risk and sharing the losses of a few people among many. It enables the policyholder to substitute a relatively small expenditure (premium) for a potentially large but uncertain future loss (insurance claim). The majority of the insurance industry in Nova Scotia is, not surprisingly, located in Halifax; the city has a very high concentration of insurance jobs in Canada relative to its size. Insurance is a high-wage, environmentally friendly industry and a major contributor to the provincial economy.

In 2008, total real GDP attributed to the insurance sector in Nova Scotia was \$457 million. Insurance carriers' contribution was \$330 million, plus \$127 million from agencies and brokerages and other insurance-related activities. It is estimated that 44.9 per cent of insurance carrier activity in 2008 was attributable to the P&C sector, translating to a contribution of \$148.2 million to real GDP.

Total direct employment in 2008 in Nova Scotia's insurance sector was 4,392, made up of 2,499 carriers and 1,893 agents and brokers. The insurance industry creates high-paying jobs in the province, with average weekly wages in the industry significantly higher (38 per cent) than the provincial average.

In addition to the direct impact the industry has on the economy, the sector indirectly benefits a number of other industries in the province, including finance and insurance; professional scientific and technical services; information and cultural; retail and wholesale trade; administrative and support; and utilities. What's more, claims payments support local industries such as the medical, rehabilitation, and psychological services, and auto repair.

Real GDP for P&C insurance carriers in 2008 was \$148.2 million. The footprint analysis suggests that the multiplier that captures indirect and induced impacts from this industry is 1.74, resulting in an overall economic contribution (or footprint) to real GDP worth \$257.3 million in 2008. (See Table 1.) In total, the direct, indirect, and induced impacts of the P&C sector were responsible for 1,990 jobs in Nova Scotia in 2008.

¹ For the purpose of this report, the agent and brokers' network includes agents and brokers that provide both P&C and life, medical, and health policies.

Total brokers, agents, and other insurance-related activities made a direct contribution worth \$126.7 million to real GDP in Nova Scotia in 2008. The overall economic multiplier for this sector is 1.45, resulting in a total GDP footprint of \$183.8 million. Considering the total impacts from the agents and brokers industry, this sector supported roughly 2,420 jobs in Nova Scotia in 2008.

Table 1				
<i>GDP and Employment Impacts in Nova Scotia</i>				
(impacts in 2008)				
	Real GDP (\$ millions, 2002)	Multiplier	Total GDP Impact (\$ millions, 2002)	Total Employment Impact
P&C Sector	148.2	1.74	257.3	1,990
Medical, Health and Life	181.9	1.74	316.3	2,490
Agents and Brokers	126.7	1.45	183.8	2,420
Total Insurance Industry	456.8	1.66	757.4	6,900
Sources: The Conference Board of Canada; Statistics Canada.				

In total, the insurance industry in Nova Scotia directly contributed \$456.8 million to real GDP in 2008. At 1.66, the overall economic multiplier for the industry is relatively large compared with the multiplier for other service sectors. Including direct, indirect, and induced impacts, our analysis reveals an economic footprint for the insurance industry that adds \$757.4 million in real terms to Nova Scotia's economy. A significant amount of employment in the province can also be traced back to the industry; about 6,900 jobs are supported by the insurance industry's direct and multiplier effects on the economy.

The lift to economic activity results in a boost to labour income and corporate profits, important sources of revenue for both federal and provincial levels of government. In 2008, the insurance industry in Nova Scotia generated \$222.6 million in corporate income tax, personal income tax, and indirect tax revenues for the federal and provincial governments.²

² Note that this estimate does not include premium taxes paid by insurance companies, equal to an estimated \$40.9 million in 2008 from P&C companies. It also excludes the premium taxes paid by medical, health, and life insurers, where the tax rate is 3 per cent on gross life, sickness, and accident premiums.

1.0 Introduction

The primary objective of this study is to quantify the impact of Nova Scotia's insurance industry on key economic indicators such as gross domestic product (GDP), employment, income, and government revenues. In addition to quantifying the impact of the total insurance industry, this study also aims to determine the impact of the agents and brokers network and the property and casualty carriers (P&C) components of the industry. This study utilizes results from Statistics Canada's regional input-output model to quantify the indirect impact of Nova Scotia's insurance sector and The Conference Board of Canada's provincial forecasting model to simulate the induced impacts of the industry. Section 2.0 of this report provides a brief introduction to the insurance industry in Nova Scotia and discusses the supply chain linkages in the industry. In Section 3.0, we describe the methodology and key assumptions used in the analysis. Section 4.0 deals with the results of the analysis while Section 5 contains the conclusions drawn from the findings.

2.0 Nova Scotia's Insurance Industry

This section briefly describes the insurance industry, the P&C sector, GDP and employment in Nova Scotia's industry, and the supply chain that provides services and products to the province's industry, and compares indirect economic multipliers in the insurance industry to other service sector multipliers.

2.1 Insurance Industry Overview

The principles upon which modern insurance is constructed actually date back approximately 4,000 years to the banks of the Yangtze River in ancient China. Traders purposely met just before the most dangerous part of the river to exchange a part of their cargo before undertaking treacherous rapids that led to the final trading location. This was done to ensure that, if one of the boats didn't survive the trip, no one trader would lose a full load of supplies. These traders realized that everyone would be better off if the risks inherent in the voyage were shared among the entire group.

In Canada, the need for insurance surfaced in the early 1800s when Canadian cities started to increase in size. The Phoenix Assurance Company opened in Montréal in 1804, and five years later the Halifax Fire Insurance Association was created. In 19th century Canada, fire insurance was top of mind because wood was the most common construction material at the time.

Today, the insurance industry can be broadly broken into three components: P&C insurance carriers, medical, health, and life insurance carriers, and agents, brokers, and reinsurance providers. For the purpose of this report, agents and brokers include those providing both P&C and medical, health and life policies. There are numerous private companies operating in the insurance industry across the country and there are also government-owned car insurers in British Columbia, Manitoba, and Saskatchewan. The bodily injury portion of car insurance in Quebec is provided by the provincial government.

Most Canadians pay very little attention to insurance, believing that it will always be around to help out in case a damaging event occurs—which most feel will likely never happen to them. Insurance is essentially a mechanism for spreading risk and sharing the losses of a few people among many. It enables the policyholder to substitute a relatively small expenditure (a premium) for a potentially large but uncertain future loss (an insurance claim). Policyholders who are fortunate enough to avoid losses to their homes or automobiles help to compensate those individuals who are impacted by losses.

Insurance can be viewed as a giant pool into which policyholders pay their premiums. The pool must provide for payment of the losses experienced by those with claims and for the costs involved with operating the pool manager, the insurance company. Insurance companies use premiums and investment earnings to help pay for claims and operating expenses.

The P&C industry in Canada is currently dealing with some challenging issues that are having a major impact on the sector's bottom line. Climate change, for example, has caused more severe and frequent

storms than those a few decades ago. This has resulted in insurance claim payments attributable to natural disasters doubling every five to ten years since the 1950s—even when adjusting for inflation. Also, insurance fraud and theft has become a huge concern for the industry. In 2007, auto theft cost Canadian insurers \$542 million, averaging around \$35 per car insurance policy.³

2.2 The Property and Casualty Industry in Nova Scotia

The majority of the industry in Nova Scotia is, not surprisingly, located in Halifax, and the city has a very high concentration of insurance jobs in Canada relative to its size. The industry is a high-wage, environmentally friendly industry and a major contributor to the provincial economy.

The P&C industry in Nova Scotia managed to perform fairly well in the midst of the recession that gripped much of the Canadian economy last year. While it is difficult to obtain precise estimates of the industry's output at the provincial level, the Conference Board's provincial forecast model provides some general projections. The model forecasts changes in real output in the finance and insurance industry in the province. Although broad—the category includes financial institutions like banks and hedge funds in addition to P&C insurance companies—it does provide some insights into the performance of the industry. In 2009, real GDP in this sector grew by 1.6 per cent, a solid gain considering that Nova Scotia recorded an estimated decline of 0.2 per cent in GDP during the recession. This year, the finance and insurance industry will continue to outperform the rest of the province's economy with anticipated growth in real GDP of 2.8 per cent (compared with a gain of 1.9 per cent for the entire province).

The benefits to the Nova Scotia economy attributable to the P&C industry go well beyond the direct contribution to the economy in the form of sales, jobs, and taxes that are linked to companies operating in the province. The P&C companies have an indirect economic effect on other businesses in the province. Many jobs in the legal, construction, health and rehabilitation services, auto repair, and other sectors are linked to the sector. The industry is also an “export sector” for Nova Scotia and provides opportunity for new foreign direct investment. Back office, customer service, and training activities serve clients across the country and around the world.

The P&C insurance companies impact the economy another way, through what economists refer to as “induced effects.” When employees of all the insurance and other companies linked to the industry spend the money that they earn on goods and services in Nova Scotia, the economy receives an additional economic benefit in the form of new jobs and activity generated in other sectors of the economy. The sum of the direct, indirect, and induced effects represents the overall contribution, or the economic footprint, that the industry has on the provincial economy.

Finally, there is an additional benefit that is associated with the P&C industry. The claims payments that companies make to people who have experienced damage to their properties or vehicles are generally

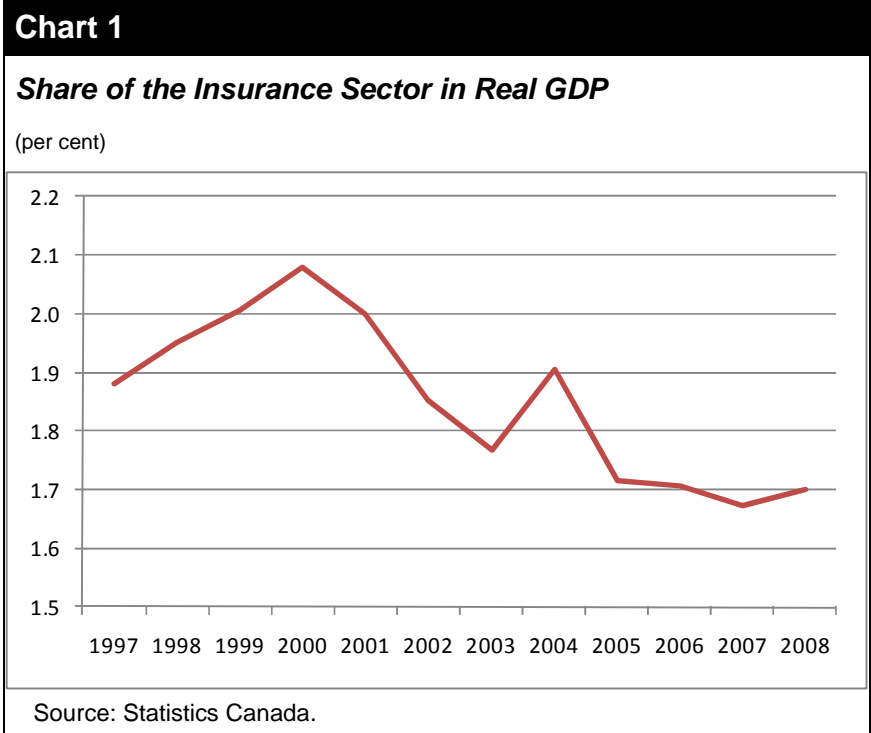
³ Insurance Bureau of Canada, 2009 Facts of the General Insurance Industry in Canada, http://www.ibc.ca/en/Need_More_Info/documents/Facts%20book%202009_ENG.pdf.

spent in the province. Claim payments can have a dramatic impact on a local economy depending on the circumstances. For instance, after the devastation created by Hurricane Katrina a few years ago, the local economy was basically shut down. Without jobs and income, the only money that people had access to was claim payments. This money was able to generate some economic activity in a region with few other options. In 2008, P&C insurers in Nova Scotia paid out \$561 million in claims.

2.3 Insurance Industry GDP

In 2008, total real GDP attributed to the insurance sector in Nova Scotia was \$457 million. Insurance carriers’ contribution was \$330 million, and \$127 million came from agencies and brokerages and other related insurance activities. It is estimated that 44.9 per cent of insurance carrier activity in 2008 was attributable to the P&C sector, translating to a contribution to real GDP of \$148 million.⁴

The share of the insurance sector in Nova Scotia’s real GDP has been declining over the last few years. In 2008, the insurance sector represented 1.7 per cent of total provincial GDP, down from a high of 2.1 per cent in 2000. (See Chart 1.) For a detailed explanation of how GDP for the insurance industry is calculated, see box “Measuring Direct GDP in the Insurance Industry.”



The insurance industry posted growth during this period, just at a slower pace than overall real GDP. From 1998 to 2008, average annual compound growth in the insurance industry was just 1.8 per cent, compared with total GDP gains of 2.7 per cent per year. Insurance carriers posted average annual growth of 1.2 per cent during this time, with gains concentrated mostly in the P&C sector, where growth is estimated to have been 2.7 per cent per year. Growth in agencies and brokerages fared better than growth in overall GDP, with average annual compound growth of 3.6 per cent from 1998 to 2008.

⁴ For a detailed explanation of how real GDP was estimated for agencies, brokerages, and other insurance-related industries and for the P&C component of insurance carriers, please refer to section 3.2.

Measuring Direct GDP in the Insurance Industry

Insurance firms earn revenues through investment income and premiums paid. Data concerning these revenues are collected by Statistics Canada, along with information on claims, to estimate the direct economic contribution of the insurance industry. More specifically, real value added, or GDP, of the insurance industry is calculated by adding premiums to investment income and then subtracting claims paid. This method accurately reflects our system of national accounting, where the direct value added of an industry is measured, for the most part, by the wages it pays and the profits it generates. However, unlike other industries, the insurance industry can indirectly bolster the economy when its real GDP is declining. In a year when claims rise, the value added of the industry declines (likely through a drop in profits); but when claims are paid out, they boost spending in the local economy.

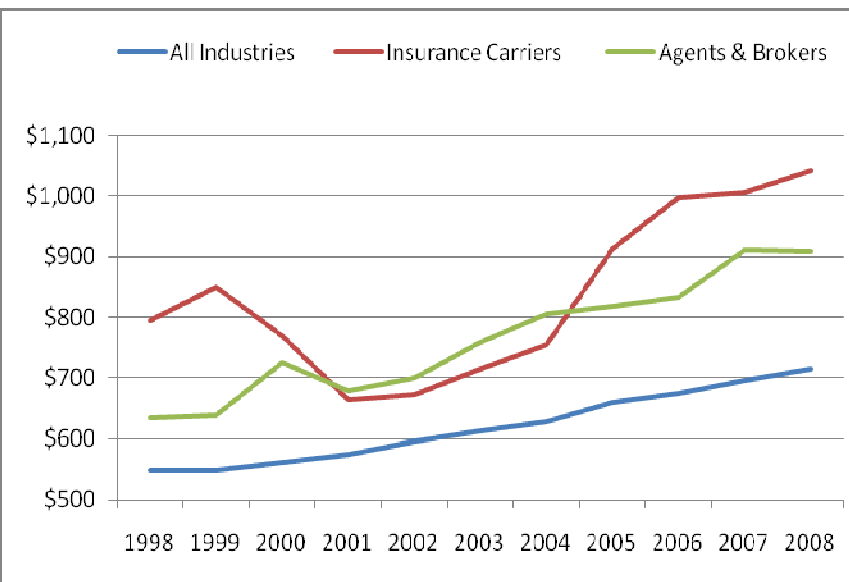
In 2008, P&C insurers in Nova Scotia paid out \$561 million in claims. As measured through our system of national accounts, this lift to economic activity is no longer attributed to the insurance industry but instead to other industries. Auto repair, home renovation, and health and medical industries, for example, would see increased demand for their services and an increase in their value added. The impact of claims payments is not quantified in the economic footprint analysis because this would lead to double counting of effects. However, annual changes in the value-added directly attributed to the insurance industry can be influenced by claims payments, especially in years when weather or other factors are more devastating than the norm.

2.4 Employment and Wages in the Insurance Industry

Direct employment in Nova Scotia’s insurance industry has been on the rise since 2005, recovering from a downward trend that had persisted since 1993. From 2005 to 2008, 655 new jobs were created by the insurance industry; recent data indicate that employment will be up strongly again in 2009 despite the effects of the recession. Insurance carriers have fared better than their agent and broker counterparts, with carrier employment increasing by 37.2 per cent over the 2005–08 period while agent and broker employment fell by 1.2 per cent over the same period. In 2008, total employment in the insurance sector in Nova

Chart 2

Nova Scotia Average Weekly Wages



Source: Statistics Canada.

Scotia was 4,392, made up of 2,499 carriers and 1,893 agents and brokers.

While employment and GDP have stabilized relative to the rest of the economy in recent years, wage growth in the industry has been very strong over the last decade. In 2008, average weekly wages for agents and brokers was \$908 and \$1,042 for carriers, compared with the Nova Scotia average of \$714. (See Chart 2.) Based on these figures, agents and brokers earn an average weekly wage that is 27 per cent above the provincial average, and the carrier workforce brings in 46 per cent more per week than the average employee in the province.

Overall, average weekly wages in the insurance industry are 38 per cent higher than the provincial average. Furthermore, wage growth has been stronger in the insurance industry over the last decade than for the province as a whole, with average annual compound growth in insurance wages of 3 per cent from 1998 to 2008 compared with the provincial increase of 2.6 per cent.

2.5 Supply Chain in Nova Scotia's Insurance Industry

A host of industries benefit from the insurance sector in Nova Scotia. Using the results from Statistics Canada's input-output model, it was possible to highlight the supply chain linkages and, thus, the industries that benefit most from Nova Scotia's insurance sector. (See Table 2.)

One of the key beneficiaries of the insurance industry is the finance, insurance, real estate, and rental and leasing sector. Obviously, the prosperity of the agent and brokers network is intricately linked with that of insurance carriers, so when there is more economic activity generated by insurance carriers, agents and brokers are the primary beneficiaries of the spinoff activities.⁵ However, carriers and brokers also have a notable impact on leasing activities, banking, and other credit intermediation and financial investments.

Professional, scientific, and technical services supply many services to the insurance industry and thus benefit from growth in the insurance sector. More specifically, legal, accounting and payroll services are boosted by activity in the insurance industry; to a lesser extent, computer systems design and other professional

Table 2

Indirect Impacts of \$100 in Real GDP in the Insurance Sector

(\$ boost to real GDP)

Finance, Insurance, Real Estate, and Rental and Leasing	20.69
Professional, Scientific and Technical Services	5.30
Information and Cultural Industries	3.87
Retail and Wholesale Trade	3.01
Administrative and Support, Waste Management and Remediation Services	2.38
Utilities	1.41

Source: Statistics Canada, Input-Output Division.

⁵ For a detailed definition of the activities of insurance carriers and agencies, brokerages, and other insurance-related activities, refer to Appendix A.

services (which include industries such as marketing research) also benefit from Nova Scotia's insurance industry.

There are a number of sectors classified under the broadcasting and telecommunications industry (which is classified in the Conference Board's provincial model under information and cultural activities) that benefit from Nova Scotia's insurance sector. Most notable is the telecommunications sector, which includes activities such as wired and wireless telecommunication carriers. Additionally, newspaper publishers, cable, and other program distribution and data processing, hosting and related services are boosted by the insurance industry.

Companies and individuals operating in the insurance industry buy a wide range of products to facilitate their business operations, from furniture to office supplies, creating demand for consumer products and boosting the retail and wholesale trade industries.

Another industry that benefits from the insurance sector is the administrative and support services industry. Increased economic activity in the insurance industry creates demand for day-to-day office support and thus boosts output in administrative sectors like security, janitorial, landscaping, and window cleaning services.

The presence of the insurance industry in Nova Scotia increases the demand for electricity in the province and, as such, the utilities industry—particularly electric power generation, transmission, and distribution sectors—produces more output to meet this demand.

In addition to the above-mentioned industries, numerous other sectors benefit, on a smaller scale, from the insurance industry in Nova Scotia, including postal services, couriers and messengers; repair and maintenance; construction; accommodation and food services; and transportation.

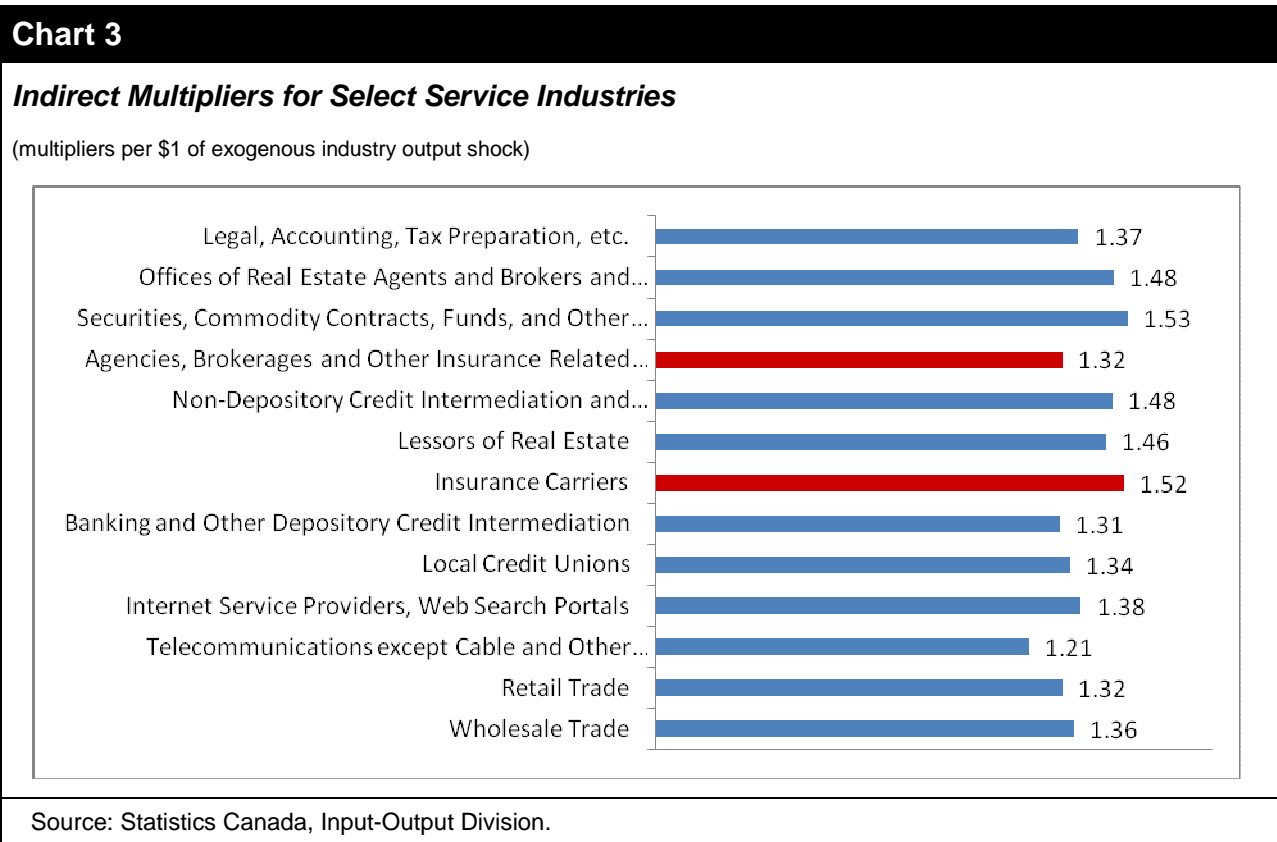
2.6 Economic Multipliers in Nova Scotia's Service Sector

Data available from Statistics Canada allow for a comparison of the direct and indirect impacts of various industries in the province. Direct impacts are the employees that are hired, the wages earned, and the firms' revenues generated, while indirect impacts take the form of the demand generated for intermediate inputs and other support services.⁶ The sum of the indirect and direct impacts divided by the direct impacts provides us with a multiplier measuring indirect impact, or the amount of spinoff activity that is generated by a particular industry.

Indirect economic multipliers in Nova Scotia's insurance industry compare favourably with the multipliers found in other service industries in the province. (See Chart 3.) Agencies, brokerages, and other insurance-related activities have an indirect multiplier of 1.32, which is similar to that of many other service industries in Nova Scotia. But insurance carriers have an indirect multiplier of 1.52, higher than the multiplier for many other service-producing sectors in the province. Of the selected

⁶ For a more detailed explanation of direct and indirect impacts, please refer to section 3.1.

comparable service industries, only one—securities, commodity contracts, funds, and other financial investments—has a higher multiplier.⁷



⁷ Some service industries in the province do have higher multipliers, such as gambling (1.58), pay and specialty television (1.75), and water transportation (1.59), but were not included in Chart 3 because industries with somewhat comparable services were selected for comparison. The services of these industries do not meet that criterion.

3.0 Key Assumptions and Methodology

3.1 Methodology

The primary objective of this study is to quantify the impact of Nova Scotia's insurance industry on key economic indicators, such as GDP, employment, income, and government revenues. The analysis (in Section 4.0) will detail the impact of the insurance industry as a whole, as well as the impact of P&C carriers, agents, brokers, and other insurance-related activities. The analysis evaluates the combined direct, indirect, and induced economic impacts, using the following parameters:

- **Direct impact** measures the value added⁸ to the economy by the insurance sector that is attributed directly to the sector's employees, the wages earned, and the firms' revenues generated.
- **Indirect impact** measures the value added that the "direct impact firms" generate within the economy through their demand for intermediate inputs or other support services. For example, activity in the insurance sector creates opportunities for legal and administrative services.
- **Induced impacts** are derived when employees of the aforementioned industries spend their earnings and owners spend their profits. These purchases lead to more employment, higher wages, and increased income and tax revenues, and can be felt across a wide range of industries.

Thus, increased demand for a specific industry not only will have direct impacts on the economy but will spread through the economy through a series of multiplier effects. Indirect effects are first felt in an increase in demand for products and services from industries that are direct suppliers. Second-round induced effects produce a widespread impact (albeit usually smaller) on all sectors of the economy, largely through a general increase in consumer spending.

To derive the indirect impact of Nova Scotia's insurance sector on the provincial economy, the study relied on the use of Statistic Canada's detailed model of regional industrial structure in order to assess the direct value added but also the indirect effects to related industries across the province. The Statistics Canada Regional input-output model (I-O) has the advantage of finely detailing the industrial structure within an industry as well as containing detailed linkages for input commodities to other industries.⁹ As many of these links are unpublished (due to confidentiality), Statistics Canada has the advantage of being able to assess much more accurately both the direct and indirect effects of the specific industries on a regional basis.¹⁰

⁸ Value added or net output is the difference between total revenue and the sum of expenses on parts, materials, and services used in the production process. Summing the value added across all industries in a region will yield the GDP in that region.

⁹ Statistics Canada's regional I-O model breaks down roughly 300 industries and over 700 commodities.

¹⁰ For more information about Statistics Canada's Interregional Input-Output Model see: *A Guide to Using the Statistics Canada Input-Output Model*, Erik Poole, 58-E, June 1993 Revised September 1999.

Given the detailed information available from Statistics Canada's I-O model, two simulations were performed to assess the impact of various segments of Nova Scotia's insurance industry. The first was on Insurance Carriers and the second on Agencies, Brokerages and Other Related Insurance Activities.¹¹

Once Statistics Canada provided its assessment of direct and indirect impacts, these results were used to determine the additional induced effects. The Conference Board's Provincial Forecasting Model contains a more aggregate industrial sector but has the benefit of assessing the impact of additional income, through changes in wages and profits, on the Nova Scotia economy. Moreover, the Conference Board's models allow for the analysis to be carried out over a time period whereas Statistics Canada's I-O model simply yields a one-time total effect. The direct and indirect effects obtained from the I-O simulations were employed to guide the Conference Board's provincial forecasting model and to obtain the additional induced impacts on the economy. In essence, they were used to estimate the total economic footprint of each of the insurance industry segments on Nova Scotia's economy over the 2005–08 period.

3.2 Key Assumptions

The goal of this analysis is to provide the quantitative impact on Nova Scotia's economy that can be attributed to the total insurance sector, agents, brokers, and other insurance-related activities, and P&C carriers. Statistics Canada provides nominal GDP data for total insurance carriers and agents and brokers and real GDP data for insurance carriers. We therefore needed to estimate real GDP for agents and brokers and, using other data, break out the contribution of P&C carriers from total insurance carriers.

To calculate real GDP for the agent and broker industry, an implicit deflator for insurance carriers was created using the nominal and real data for this sector. This deflator was then used to calculate real GDP for the agent and broker industry. Trend growth was used to extend the deflator to 2008.

The Greater Halifax Partnership provided the Conference Board with detailed financial data compiled by Statistics Canada for insurance carriers broken into two components: life, health/medical; and P&C. The value added of each of these subsectors was calculated by adding insurance premiums to investment income and then subtracting from this amount the insurance claims incurred. The share of the P&C sector was then calculated by dividing the P&C value added by the value added for total insurance carriers (defined as the total from life, health and medical plus P&C). This share was then applied to the real GDP data for insurance carriers in Nova Scotia available from Statistics Canada to derive real GDP estimates for the P&C carriers.

¹¹ These are North American Industrial Classification System (NAICS) industries 5241 and 5242.

4.0 Findings

4.1 Property and Casualty Sector

It is estimated that the property and casualty carriers directly contributed \$148.2 million to Nova Scotia's real GDP in 2008. The footprint analysis shows that when indirect and induced impacts are considered, the impact of P&C carriers jumps to \$257.3 million—a total multiplier effect of 1.74. (See Table 3.) The economic activity generated by this sector boosts employment, which in turn increases total personal income in the province by an estimated \$86.7 million in 2008. Additional income flows to the province in the form of corporate profits, with the property and casualty sector resulting in an overall boost to corporate profits of \$153 million in 2008.

Table 3

Property and Casualty Carriers' Impact on Nova Scotia Key Economic Indicators

(level difference except where otherwise indicated)

	2005	2006	2007	2008
Total P&C Carriers (\$millions, constant, 2002)	154.8	148.5	140.6	148.2
Total P&C Carriers (\$millions, current)	154.9	156.4	154.6	160.2
Real GDP at Market Prices (\$millions, constant, 2002)	296.3	284.2	266.9	280.8
GDP at Market Prices (\$millions, current)	270.3	264.8	258.5	273.4
Real GDP at Basic Prices (\$millions, constant, 2002)	269.5	259.8	245.7	257.3
Average Weekly Wages Industrial Composite (percentage difference)	0.2	0.2	0.2	0.2
Personal Income (\$millions, current)	78.9	80.8	79.0	86.7
Personal Disposable Income (\$millions, current)	51.7	54.7	53.3	59.5
Population of Labour Force Age	2.4	2.6	2.9	3.1
Labour Force (thousands)	1.2	1.1	1.0	1.1
Employment (thousands)	2.1	2.0	1.9	2.0
Unemployment Rate (level difference in rate)	-0.2	-0.2	-0.2	-0.2
Retail Sales (\$millions, current)	42.0	39.8	35.9	38.8
Total Indirect Taxes (\$millions, current)	4.0	3.9	3.7	4.0
Federal Personal Income Tax Collections (\$millions, current)	10.8	10.4	10.7	11.3
Provincial Personal Income Tax Collections (\$millions, current)	7.2	7.0	6.7	7.2
Corporate Taxes (\$millions, current)	44.7	49.4	47.1	49.6
Corporate Profits (\$millions, current)	167.0	156.6	149.7	153.0
ECONOMIC MULTIPLIER	1.74	1.75	1.75	1.74

Sources: The Conference Board of Canada; Statistics Canada.

The increase in economic activity helps boost federal and provincial government coffers by \$72.1 million, attributable to increases in corporate taxes, personal income tax, and indirect taxes.¹²

Table 4 shows the impact of P&C carriers on the different components of real GDP. This footprint analysis shows that when including the direct, indirect, and induced impacts, P&C carriers accounted for 1 per cent of total provincial real GDP in 2008.

Table 4

Property and Casualty Carriers' Impact on Nova Scotia Real GDP, by Industry and Labour Market

(Level difference control except where otherwise indicated)

	2005	2006	2007	2008
Real GDP at Basic Prices (millions of \$2002)	269.5	259.8	245.7	257.3
Manufacturing	2.0	1.7	1.5	1.6
Construction	0.6	0.6	0.4	0.5
Utilities	1.6	1.5	1.3	1.5
Transportation, Storage, and Communication	9.3	8.9	8.7	9.0
Wholesale and Retail Trade	4.5	4.1	4.2	4.3
Finance, Insurance, and Real Estate	230.4	223.0	209.9	219.8
Community, Business, and Personal Services	19.7	18.6	18.2	18.7
Public Administration and Defense	0.7	0.6	0.6	0.5
Total Employment (thousands)	2.08	2.00	1.86	1.99
Services	2.01	1.94	1.81	1.93
Unemployment	-0.9	-0.9	-0.8	-0.9
P&C Carriers' Contribution to Total Real GDP (per cent)	1.1	1.0	0.9	1.0
P&C Carriers' Contribution to Total Employment (per cent)	0.5	0.5	0.4	0.4

Sources: The Conference Board of Canada; Statistics Canada.

As expected, the largest impact is on the finance, insurance, and real estate industry because it incorporates the direct impact from the P&C sector but also because the broker network—which benefits significantly from activity in the insurance carrier industry—is also included in this category. Community, business, and personal services also benefit from activity generated by P&C carriers. In particular, professional services, such as legal, accounting, tax preparation, bookkeeping, and payroll services, benefit from the presence of the P&C industry.

The footprint analysis shows that when considering the direct, indirect, and induced impacts, the P&C sector was responsible for 1,990 jobs in Nova Scotia in 2008, with the majority of these positions located

¹² This estimate does not include an estimated \$40.9 million in premium taxes paid by P&C companies in 2008.

in the services sector. This represents 0.4 per cent of total employment in the province. Unemployment in Nova Scotia is estimated to be down by 900 in 2008 due to the job creation generated by P&C carriers.

4.2 Agencies, Brokerages, and Other Insurance-Related Activities

The agent, broker, and other insurance-related industry contributed an estimated \$126.7 million to real GDP in Nova Scotia in 2008. Results from this footprint analysis show that when including the indirect and induced impacts of the industry, the contribution jumps to \$183.8 million, a multiplier effect of 1.45. (See Table 5.)

Table 5				
<i>Agents, Brokers, and Others' Impact on Nova Scotia Key Economic Indicators</i>				
<i>(Level difference except where otherwise indicated)</i>				
	2005	2006	2007	2008
Total Broker Network (\$millions, constant, 2002)	121.2	118.0	122.3	126.7
Total Broker Network (\$millions, current)	121.3	124.3	130.3	136.6
Real GDP at Market Prices (\$millions, constant, 2002)	192.5	185.9	191.6	200.5
GDP at Market Prices (\$millions, current)	219.3	218.3	224.4	236.9
Real GDP at Basic Prices (\$millions, constant, 2002)	175.2	169.9	176.4	183.8
Average Weekly Wages Industrial Composite (percentage difference)	0.2	0.2	0.2	0.2
Personal Income (\$millions, current)	85.6	89.5	93.6	100.9
Personal Disposable Income (\$millions, current)	56.4	60.0	62.1	68.2
Population of Labour Force Age	2.2	2.5	2.8	3.1
Labour Force (thousands)	1.3	1.3	1.3	1.4
Employment (thousands)	2.3	2.3	2.3	2.4
Unemployment Rate (level difference in rate)	-0.2	-0.2	-0.2	-0.2
Retail Sales (\$millions, current)	38.2	40.6	42.5	47.9
Total Indirect Taxes (\$millions, current)	4.5	4.6	4.7	4.9
Federal Personal Income Tax Collections (\$millions, current)	11.6	11.5	13.2	13.6
Provincial Personal Income Tax Collections (\$millions, current)	8.1	8.2	8.5	8.8
Corporate Taxes (\$millions, current)	29.0	31.9	31.6	33.4
Corporate Profits (\$millions, current)	108.2	101.1	100.2	102.9
ECONOMIC MULTIPLIER	1.45	1.44	1.44	1.45
Sources: The Conference Board of Canada; Statistics Canada.				

Employment in the province gets a substantial boost from the broker network, and this additional employment increased personal income in the province by an estimated \$100.9 million in 2008.

Corporations also benefit from the industry with an estimated \$102.9 million in corporate profits generated in the province thanks to the presence of the broker network. This network generated \$60.6 million in corporate income tax, personal income tax, and indirect tax revenues for the federal and provincial governments.

Table 6 contains the detailed impacts of the broker network on the different components of real GDP by industry. The finance, insurance, and real estate industry has the largest contribution due to the direct impact of the broker network, but the numbers also reflect some indirect and induced impacts in the finance and real estate industries. Other significant beneficiaries include community, business, and personal services, transportation, storage, and communication, and wholesale and retail trade.

Table 6

Agents, Brokers, and Others' Impact on Nova Scotia Real GDP, by Industry and Labour Market

(Level difference except where otherwise indicated)

	2005	2006	2007	2008
Real GDP at Basic Prices (\$millions, 2002)	175.2	169.9	176.4	183.8
Manufacturing	1.7	1.7	1.7	1.8
Construction	0.4	0.4	0.5	0.5
Utilities	2.8	2.8	2.9	3.0
Transportation, Storage, and Communication	9.1	9.1	9.6	9.8
Wholesale and Retail Trade	5.9	5.8	6.5	6.7
Finance, Insurance, and Real Estate	139.3	135.2	137.8	143.8
Community, Business, and Personal Services	14.2	13.1	15.0	15.7
Public Administration and Defense	1.1	1.0	1.1	1.2
Total Employment (thousands)	2.34	2.31	2.35	2.42
Services	2.28	2.24	2.27	2.34
Unemployment	-1.0	-1.0	-1.0	-1.1
Brokers and Agents' Contribution to Total Real GDP (per cent)	0.7	0.7	0.7	0.7
Brokers and Agents' Contribution to Total Employment (per cent)	0.5	0.5	0.5	0.5

Source: The Conference Board of Canada; Statistics Canada.

Overall, the footprint analysis suggests that when measuring direct, indirect, and induced impacts, the broker network contributed 0.7 per cent to real GDP in Nova Scotia in 2008.

Estimates from this footprint analysis indicate that the broker network in the province supported about 2,420 jobs in Nova Scotia in 2008, representing 0.5 per cent of total employment. Furthermore,

unemployment in the province is down by 1,100 due to the broker network's contribution to the economy.

4.3 Insurance Industry

Real GDP in Nova Scotia's insurance industry was \$456.8 million in 2008. When including indirect and induced impacts of the industry, the real GDP footprint was \$757.4 million—a multiplier effect of 1.66. (See Table 7.)

Table 7				
<i>Total Insurance Industry's Impact on Nova Scotia Key Economic Indicators</i>				
<i>(Level difference except where otherwise indicated)</i>				
	2005	2006	2007	2008
Total Insurance Industry (\$millions, constant, 2002)	439.0	441.1	439.2	456.8
Total Insurance Industry (\$millions, current)	439.4	464.6	478.8	493.4
Real GDP at Market Prices (\$millions, constant, 2002)	801.8	803.1	791.6	826.4
GDP at Market Prices (\$millions, current)	829.0	824.9	817.6	857.6
Real GDP at Basic Prices (\$millions, constant, 2002)	729.3	734.0	728.6	757.4
Average Weekly Wages Industrial Composite (percentage difference)	0.2	0.2	0.2	0.2
Personal Income (\$millions, current)	262.9	275.4	281.9	303.8
Personal Disposable Income (\$millions, current)	177.0	189.3	191.6	210.0
Population of Labour Force Age	8.7	9.6	10.4	11.3
Labour Force (thousands)	3.7	3.7	3.7	3.9
Employment (thousands)	6.7	6.7	6.6	6.9
Unemployment Rate (level difference in rate)	-0.7	-0.7	-0.7	-0.7
Retail Sales (\$millions, current)	112.1	121.2	123.9	133.8
Total Indirect Taxes (\$millions, current)	12.8	13.0	13.2	13.9
Federal Personal Income Tax Collections (\$millions, current)	34.4	34.3	38.3	39.5
Provincial Personal Income Tax Collections (\$millions, current)	23.1	23.6	23.7	24.8
Corporate Taxes (\$millions, current)	130.7	145.4	137.8	144.4
Corporate Profits (\$millions, current)	488.0	461.3	437.5	445.4
ECONOMIC MULTIPLIER	1.66	1.66	1.66	1.66
Sources: The Conference Board of Canada; Statistics Canada.				

The increase in employment generated by the insurance industry resulted in an estimated increase of \$303.8 million in personal income in 2008. The impact on corporate profits is even larger, with the insurance sector contributing \$445.4 million to corporate profits in the province in 2008. The resulting increase in economic activity boosts government revenues by \$222.6 million, made up of corporate

income taxes, personal income taxes, and indirect taxes collected by federal and provincial levels of government.¹³

Table 8

Total Insurance Industry's Impact on Nova Scotia Real GDP, by Industry and Labour Market

(Level difference except where otherwise indicated)

	2005	2006	2007	2008
Real GDP at Basic Prices (\$millions, 2002)	729.3	734.0	728.6	757.4
Manufacturing	5.5	5.1	4.9	5.2
Construction	1.8	1.8	1.8	1.9
Utilities	6.1	6.1	6.1	6.4
Transportation, Storage, and Communication	27.3	27.6	28.3	29.2
Wholesale and Retail Trade	17.0	16.5	17.5	18.1
Finance, Insurance, and Real Estate	611.7	617.8	608.2	631.8
Community, Business, and Personal Services	53.7	52.7	54.8	56.7
Public Administration and Defense	3.6	3.3	3.5	3.7
Total Employment (thousands)	6.71	6.67	6.62	6.90
Services	6.48	6.44	6.38	6.65
Unemployment	-3.0	-2.9	-2.9	-3.0
Insurance Industry Contribution to Total Real GDP (per cent)	2.8	2.8	2.8	2.8
Insurance Industry Contribution to Total Employment (per cent)	1.5	1.5	1.5	1.5

Sources: The Conference Board of Canada; Statistics Canada.

Table 8 shows the impact of the insurance industry on the different sectors of Nova Scotia's economy. The largest beneficiaries from the insurance industry are as follows: the finance, insurance, and real estate industry; community, business, and personal services; transportation and communication; and wholesale and retail trade sectors. When including the direct, indirect, and induced impacts of the insurance industry, the insurance industry's footprint accounted for 2.8 per cent of Nova Scotia's total real GDP in 2008.

The footprint analysis shows that in addition to the significant GDP contribution, the insurance sector was also responsible for 6,900 jobs in 2008, mostly in the services sector. This represents 1.5 per cent of total provincial employment, while unemployment in the province is reduced by 3,000.

¹³ Note that this estimate does not include premium taxes paid by insurance companies. P&C companies paid \$40.9 million in premium taxes in 2008. It also excludes the premium taxes paid by medical, health, and life insurers where the tax rate is 3 per cent on gross life, sickness, and accident premiums.

5.0 Conclusion

The insurance sector in Nova Scotia plays a vital role in facilitating economic activity by mitigating personal and corporate risk. In addition to this role, the industry is a significant contributor to economic activity in the province. The insurance industry supports many well-paying jobs, with over 4,000 people directly employed by the sector in 2008 earning, in general, wages that are significantly higher than the provincial average.

This study aimed to measure the larger economic footprint of Nova Scotia's insurance industry by examining the multiplier effects that the industry has on the supply chain but also by quantifying the impact of more jobs and profits within the province. We find that in 2008, insurance activity directly contributed \$456.8 million in real GDP to the economy. When indirect and induced impacts are calculated, the insurance sector's contribution to the economy in 2008 is lifted to \$757.4 million, about 2.8 per cent of real GDP. Moreover, about 6,900 jobs in Nova Scotia are directly and indirectly tied to the insurance industry. The economic footprints of property and casualty carriers and the broker network were also estimated. Our findings reveal that the property and casualty subsector of the insurance industry supported roughly 1,990 jobs in 2008, while agents, brokers, and other insurance-related activity supports about 2,420 jobs in Nova Scotia.

Appendix A

The following definitions have been copied from Statistics Canada's website and refer to the NAICS 2007 classification.¹⁴

A.1 Insurance Carriers – NAICS code 5241

This industry group comprises establishments primarily engaged in underwriting annuities and insurance policies, and reinsurance. The establishments of this group invest premiums to build up a portfolio of financial assets to be used against future claims. Contributions and premiums are set on the basis of actuarial calculations of reserves. Direct insurance carriers that are primarily engaged in underwriting annuities and insurance policies directly to policy holders, and reinsurance carriers that are primarily engaged in assuming all or part of the risk associated with existing insurance policies originally underwritten by other insurance carriers, are included. Industries are defined in terms of the type of risk against which the policy holders are being insured, such as death, loss of employment due to age or disability, and property damage.

A.2 Agencies, Brokerages and Other Insurance Related Activities – NAICS code 5242

This industry group comprises establishments primarily engaged in selling insurance or providing services related to insurance.

Agencies and brokerages are comprised of establishments primarily engaged in selling insurance and pension products. The staff of these agencies and brokerages are not employed by the insurance carriers they represent. It excludes insurance agencies with staff employed by the carriers they represent, which are classified in 5241.

Other insurance-related activities are comprised of establishments, not classified to any other industry, primarily engaged in providing, on a contract or fee basis, services related to providing insurance, such as claims administration and adjusting. The staff of these establishments are not employed by the insurance carriers they represent. It excludes establishments primarily engaged in third-party portfolio management of funds' assets.

¹⁴ http://stds.statcan.gc.ca/naics-scian/2007/cs-rc-eng.asp?criteria=5241&keyword=insurance&table=3&code_level= and http://stds.statcan.gc.ca/naics-scian/2007/cs-rc-eng.asp?criteria=5242&keyword=insurance&table=3&code_level=