## Retail trade in Canada

# Turnover/Output Measures and Practices in Canada 

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Abstract: The output of retail trade is not limited to its contribution to value added. Estimates of retail trade turnover are a key input to the calculation of personal expenditures. In Canada, measurement of the industry needs to be able to serve both requirements.

## 1. Definition of service being collected

## Retail Trade Sector - NAICS 44-45 ${ }^{1}$

In Canada, the retail trade sector comprises establishments primarily engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise.

The retailing process is the final step in the distribution of merchandise; retailers are therefore organized to sell merchandise in small quantities to the general public. There are two main types of retailers, that is, store and non-store retailers.

## Store Retailers

Store retailers operate fixed point-of-sale locations, located and designed to attract a high volume of walk-in customers. In general, retail stores have extensive displays of merchandise and use mass-media advertising to attract customers. They typically sell merchandise to the general public for personal or household consumption, but some also serve business and institutional clients. These include establishments such as office supplies stores, computer and software stores, gasoline stations, building material dealers, plumbing supplies stores and electrical supplies stores.

In addition to selling merchandise, some types of store retailers are also engaged in the provision of after-sales services, such as repair and installation. For example, new automobile dealers, electronic and appliance stores and musical instrument and supplies stores often provide repair services, while floor covering stores and window treatment stores often provide installation services. As a general rule, establishments engaged in retailing merchandise and providing after sales services are classified in this sector.

Catalogue sales showrooms, gasoline service stations, and mobile home dealers are treated as store retailers.

## Non-Store Retailers

Non-store retailers, like store retailers, are organized to serve the general public, but their retailing methods differ. The establishments of this subsector reach customers and market merchandise with methods such as the broadcasting of infomercials, the broadcasting and publishing of direct-response advertising, the publishing of traditional and electronic catalogues, door-to-door solicitation, in-home demonstration, temporary displaying of merchandise (stalls) and distribution by vending machines.

The methods of transaction and delivery of merchandise vary by type of non-store retailers. For example, non-store retailers that reach their customers using information technologies can receive payment at the time of purchase or at the time of delivery, and the delivery of the merchandise may be done by the retailer or by a third party, such as the post office or a courier. In contrast, non-store retailers that reach their customers by door-to-door solicitation, in-home demonstration, temporary displaying of merchandise (stalls) and vending machines typically receive payment and deliver the merchandise to the customer at the time of the purchase.

The non-store retail subsector also includes establishments engaged in the home delivery of products. This includes home heating oil dealers and newspaper delivery companies.

The non-store retail industry includes self-employed individuals who work as agents on commission for a particular company. (Retail commission agents are also known as sales contractors, distributors, or sales representatives, and usually represent only one company.)

Agents on commission primarily sell merchandise owned by others, that is, they do not take legal title to the goods they handle. Therefore, they cannot report inventories or goods purchased for resale and do not necessarily have employees. Most of their revenue is derived from commissions, although they may also have other sources of revenue.

## 2. Unit of measure to be collected

Canada's retail turnover program collects information at the establishment level, the physical site(s) in which business activity is conducted in each province and territory, and for which financial records are available. In most cases, questionnaires are sent to a cluster of establishments within the same NAICS industry and operating under a single retail banner.

In order to understand the economic activity of the retail trade sector, production statistics are required such as operating revenues earned from the sale of goods and services produced along with the associated costs such as cost of goods sold, wages and salaries and depreciation. In Canada, such data are collected on an annual basis. See Appendix A for some of the key variables collected, derived variables and their definitions.

There are some differences in the measurement of turnover across the various retail surveys. The annual survey provides the only source of data on sales of goods purchased for resale. The survey also collects detailed sources of revenue and total operating revenue.

The monthly retail trade survey collects total sales, commissions and other receipts (excluding sales taxes) that includes most but not all of the items included in total operating revenue collected on the annual survey.
Inclusions:

- sales of all goods purchased for resale, net of returns and discounts
- commission revenue and fees earned from selling goods and services on account of others, such as selling lottery tickets, bus tickets and phone cards
- parts and labour revenue from repair and maintenance
- revenue from rental and leasing of goods and equipment
- revenue from services, including food services
- sales of goods manufactured as a secondary activity
- proprietor's withdrawals, at retail value, of goods for personal use

Exclusions:

- revenue from rental of real estate, placement fees, operating subsidies, grants, royalties and franchise fees

A key output of retail trade is the margin. In Canada, the margin is calculated from the respondent's annual report of income and expenses. Trade margins are thus produced by NAICS industry rather than by specific commodity.

## 3. Surveys measuring retail trade output

### 3.1 Annual Retail Trade Survey and Annual Retail Non-Store Survey

The Annual Retail Trade Survey and Annual Retail Non-Store Survey measure the operating and financial characteristics of Canadian retailers. Data from this survey provide information on revenue, expenses and inventory. The information is also a critical input into the measure of gross margins in the Canadian System of National Accounts. Data for non-store retail are collected at the establishment level, while the estimates for the store population are produced at the location level.

In addition, the Annual Retail Non-Store Survey collects sales breakdowns for over 100 commodity groups allowing comparisons to be made to the commodity breakdowns of Statistics Canada's Quarterly Retail Commodity Survey of Store Retailers.

### 3.2 Monthly Retail Trade Survey

The Monthly Retail Trade Survey collects sales and the number of retail locations by province and territory from a sample of store retail establishments. Sales of establishments classified to retail non-store industries (NAICS 454) are out of scope to this survey. Internet retailing activities are included in the survey only when conducted through the same legal structure as the retail establishment.

### 3.3 Quarterly Retail Commodity Survey (QRCS)

The Quarterly Retail Commodity Survey (QRCS) collects detailed information about retail commodity sales in Canada. The objective is to produce estimates of the distribution of the sales of various commodities at the national level, for different types of retail outlets in Canada. The survey is a supplement to the Monthly Retail Trade Survey. MRTS gathers total monthly retail sales, while QRCS collects a breakdown of these sales by commodity. These estimates are used in Canada's estimates of consumer expenditure.

## 4. Market conditions and constraints

In 2008, retail stores and non-store retailers in Canada reported $\$ 468.5$ billion in operating revenue, a $4.5 \%$ increase from the year before.

Selected indicators of retail trade output in Canada, 2008

| NAICS |  | Sales of GPRS ${ }^{1}$ \$ millions | Total Operating Revenue \$ millions | Net Margin ${ }^{2}$ <br> \$ millions | Net Margin (percent of sales) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 441 | Motor Vehicle and Parts Dealers | 97,761.20 | 103,819.30 | 12,230.25 | 12.5\% |
| 442 | Furniture and Home Furnishings Stores | 15,670.49 | 15,928.47 | 6,426.40 | 41.0\% |
| 443 | Electronics and Appliance Stores | 15,208.98 | 16,088.16 | 3,851.28 | 25.3\% |
| 444 | Building Material and Garden Equipment Dealers | 27,985.75 | 28,695.69 | 8,681.18 | 31.0\% |
| 445 | Food and Beverage Stores | 101,873.90 | 102,798.04 | 27,540.47 | 27.0\% |
| 446 | Health and Personal Care Stores | 31,113.54 | 31,546.50 | 9,995.67 | 32.1\% |
| 447 | Gasoline Stations | 53,394.37 | 54,196.01 | 7,897.40 | 14.8\% |
| 448 | Clothing and Clothing Accessories Stores | 24,613.84 | 24,807.02 | 12,472.78 | 50.7\% |
| 451 | Sporting Goods, Hobby, Book and Music Stores | 11,686.95 | 11,853.76 | 4,316.96 | 36.9\% |
| 452 | General Merchandise Stores | 51,577.20 | 52,632.21 | 13,263.58 | 25.7\% |
| 453 | Miscellaneous Store Retailers | 12,049.04 | 12,276.97 | 4,968.37 | 41.2\% |
| 454 | Non-Store Retailers | 13,168.01 | 13,887.30 | 3,009.02 | 22.9\% |

${ }^{1}$ Sales of goods purchased for resale
${ }^{2}$ Sales of goods purchased for resale less cost of goods sold
${ }^{3}$ (Sales of goods purchased for resale less cost of goods sold) / Sales of goods purchased for resale
In Canada, retail trade is very seasonal in nature and heavily influenced by differences in trading days. The impact of an annual Easter holiday that can move from one month to another adds further complexity. Such predictable impacts on the data can be accounted for in the ARIMAX12 system used to seasonally adjust the monthly retail trade survey. This can be more challenging when there are significant changes in store hours and days of operation such as a change in a province's regulations to permit Sunday shopping or the introduction of a new statutory holiday.

Turnover in retail is used for estimates of monthly GDP by industry and quarterly estimates of income- and expenditure-based GDP. Both the turnover and the prices exhibit seasonality. The charts below based on data from the Quarterly Retail Commodity Survey illustrate the seasonality of a few of the more seasonal commodities.





In addition to seasonal shifts in commodity distribution, the share of retail sales by commodity can shift considerably from year to year. In 2009, lower gas prices and an economic downturn had an impact on current dollar sales of automotive fuels, oils and additives, as well as motor vehicles, parts and services. Retail customers spent a larger proportion of their retail dollars on food and beverages, and health and personal care products in 2009.

Retail Sales by Commodity Group


Over time, there can be noticeable shifts in the commodity distribution of the goods sold by various store types. Commodity distributions change in stores that sell a wide range of commodities. In addition, customers may shift their shopping patterns for specific commodities. Over the past ten years in Canada, general merchandise stores have increased their market share of food sales in Canada at the expense of supermarkets. Conversely, customers are less likely to purchase clothing, footwear and accessories from general merchandisers than they were a decade ago.

General Merchandise Stores Market Share by Commodity Group


There are many other factors that affect retail performance including store size, location, and banner. Canada collects additional location detail from retail store chains, defined as an organization operating four or more outlets in the same industry class under the same legal ownership at any time during the survey year. Data on sales, square footage and physical address are collected from nearly all chains operating in Canada. However, data on non-chain stores consist of both franchise and Independent stores with less than four locations in the same industry class under the same legal ownership.

A franchise is defined as a person, group of persons, partnership or incorporated company granted a contractual privilege permitting the sale of a product, use of a trade name or provision of a service within a specific territory and/or in a specified manner. Franchises can be chains or independents depending on the number of store locations they operate.

Further information would be helpful in understanding structural changes to the industry. For example, the chart below shows a lower concentration of chain stores in the Health and Personal Care Store industry, an area where franchises are common. Besides identifying the analytical benefits of isolating franchises, Canada would like to explore possible collection arrangements with franchisors. This would help reduce respondent burden on franchisees while improving data quality through increased coverage at a lower cost. This may not be possible for annual data but could be an option for monthly sales data.

## Concentration of chain stores <br> (share of total revenue)



Another phenomenon in retail trade is e-commerce. A 2006 Survey of Electronic Commerce and Technology sent to 19,000 enterprises across the entire economy, except for local governments, found that retail firms sold goods and services online worth $\$ 4.7$ billion. This was nearly double the revised figure in 2005, and it accounted for $10 \%$ of all private sector online sales. This level was just slightly over $1 \%$ of the total retail market. In fact, e-commerce still represents a small fraction of the overall Canadian economy. The survey also found that one out of three retail firms with more than 100 employees conducted e-commerce sales in $2006 .{ }^{2}$

The Retail non-store survey asks for a detailed breakdown of operating revenue by method of sale. More recently, a question was added to the Retail store survey on the percentage of sales by
the following methods: In-store sales; E-commerce (e.g., sales generated through online Internet orders); catalogue and mail-order; and all other methods (with a write-in to specify method). We expect that this question will allow us to monitor shifts in e-commerce over time.

## 5. Standard classification structure and product details/levels

Canada is working with the United States and Mexico to develop a product classification for retail trade within the North American Product Classification System (NAPCS). The current commodity classification used for retail sales by commodity is unique to the Retail Commodity Survey and Annual Retail Non-Store Survey. There are concordances mapped to the commodities used for personal expenditures (based on COICOP) and the detailed commodities of the InputOutput tables. The retail commodity groups and detail are listed in Appendix B.

Implementation of NAPCS would likely be at an aggregate level similar to the detail currently collected and will depend on the ability and willingness of respondents to provide the data on a sub-annual basis.

## 6. Evaluation of standard vs. definition and market conditions

The NAICS industries and product detail together provide an accurate and detailed picture of the market conditions in Canada's Retail Trade industry. The sub-annual data on retail stores by NAICS and detailed products are useful not just for a variety of areas in the System of National Accounts but also for economic forecasters, investors and the retail industry itself.

The monthly retail trade survey used to provide data on retail inventories. In the past, such information was often not available from retailers on such a frequent basis. Advances in electronic inventory management systems may make such data easier to collect. Such data would be beneficial as an economic indicator, particularly in times of economic downturns. The Monthly Retail Trade Survey collects inventory data from some large respondents in selected retail industries for use by the analysts in the System of National Accounts. These data are not published.

## 7. National Accounts concepts and measurement issues for retail trade related to GDP measurement

### 7.1 Current price annual value added (C\$ Input-Output Tables)

In Canada, the value added attributed to retail trade accounts for about $6 \%$ of the national GDP.

For current price estimates of value added, growth rates of the annual retail trade data are the primary source of information leading to the projection of values in the Input-Output retail table, using the previous year's I-O table as the base. These data are then confronted and reconciled with data projections from the Income and Expenditure Accounts Division program to establish final retail annual estimates, both nationally and provincially.

### 7.2 Constant price annual value added (K\$ Input-Output Tables)

In general, to calculate constant price annual value added estimates by industry from the InputOutput accounts, double deflation method is used. The real value added by industry is derived by taking the difference between the industry gross output and the sum of industry intermediate inputs (that is, goods, services and energy) in constant prices. The double deflation method is applied to derive the constant price value added for retail trade industry.

Currently, there are not direct price indexes for retail margins. However, the movement in relative prices is measured indirectly via a derived implicit price index of a commodity to which retail margin is charged. The implicit price index (IPI) for retail margin is calculated by dividing the current price sum of intermediate and final demand retail margins by the sum of their constant price retail margins by commodity.

The deflated retail margin for intermediate and final demand is calculated by applying the current price average retail margin ratio to the producer value of intermediate and final demand in constant prices. The mechanics of calculating average retail margin by commodity, the justification for using the average of two time period retail margins, and the Canadian methodology of compiling the retail margin IPI or the deflator are fully documented in A guide to Deflating the Input-Output Accounts: Sources and Methods $-2001{ }^{3}$ as follows:
"An average margin rate is calculated for each trade margin cell and for each year. The average margin rate is the average of the rate for the current year and the base year. The constant price margin is the average margin rate, defined above, applied to the constant price basic value of the commodity. The convention of using the average margin was adopted after testing a range of alternatives. Using only the base-year margin rate assumes no change in the quantum of services provided to the purchaser by the trader, and this introduces undesirable rigidities into the measure. Using current year margin rates alone exaggerates the effect of rapidly changing prices in times of higher inflation.
"Synthetic price indexes calculated from basic prices plus margin prices, using the three alternatives, were compared with observed prices measured by the CPI. It was found that the average margin rate yielded results closer to the observed rates. Since services related to margins can be rendered at any point in the chain between the producer and the final purchaser of commodities, their actual point of incidence is not known. In practice, the wholesale margin rate is calculated on the basic valuation of the good. However, the retail margin rate is derived from the basic price of the good, plus its wholesale and transportation margins. Taxes on production are not included in the margin rate largely because most taxes fall after the retail level. This calculation was also used to determine the proportion of the total trade margins to be allocated to retail and wholesale for personal expenditure estimates."

### 7.3 Monthly GDP by industry and deflation of the retail indicator

Canada's monthly estimates of value added are projections, derived from a collection of output or input indicators. In the retail trade sector, changes in constant price output are used as indicators of the growth rates in constant price value added. The movement in constant price output is assumed to be represented by the month-to-month growth rates in constant price sales by retailers. ${ }^{4}$

Current price sales by retailers are deflated using weighted aggregates of Consumer Price Indexes (CPI) of the various commodities traded. Weights are shares of gross sales by retailers, taken from the Quarterly Retail Commodity Survey by Statistics Canada. An adjustment is made for changes in retail sales tax rates whenever necessary.

### 7.4 Income and Expenditures Accounts (quarterly and annual GDP)

Retail trade turnover is also an important input to the calculation of GDP by income and expenditure. Spending of the personal sector on consumer goods represents approximately $45 \%$ of the total personal expenditure on goods and services. Most of those goods are purchased from the retail sector.

Details of Canada's methods to produce estimates of personal expenditure can be found in Statistics Canada's Guide to the Income and Expenditure Accounts ${ }^{5}$ from which the following has been extracted:
"(7.43) Estimators derived from the Survey of Household Spending are primarily used to project personal expenditure on services. However, they are also used for some goods, but only as a secondary indicator since they have certain deficiencies. For example, since purchases of durable goods are by definition infrequent, it is possible that the sample drawn might not be sufficiently representative and hence the estimates of expenditure on these goods may have a higher variance. This is one of the reasons why the estimators for approximately 40 series of personal expenditure on consumer goods are calculated using data from the Quarterly Retail Commodity Survey (QRCS). Moreover, business surveys have the advantage of covering a major portion of the consumer activities of a country or a given region with a limited sample. This is not generally possible with household surveys, due to respondent burden considerations and other constraints.
"(7.44) It should be noted that the use of QRCS results as estimators for personal expenditure on consumer goods also has some deficiencies. These commodity sales represent not only the purchases of individuals but also those of businesses (including other retailers) and governments. Moreover, retailers are not the only sources of supply for consumers. For example, consumers may also make purchases from wholesalers or buy goods via the Internet. Because of these deficiencies, the use of estimators derived from the QRCS implies that household purchases of specific goods grow at a rate similar to the retail sales of those goods. This assumption is acceptable for many goods, such as food and non-alcoholic beverages. However, for other commodities, such as hardware goods which are bought in larger proportions by businesses, this assumption may result in less reliable estimators."

## 8. Turnover/output data method(s)

### 8.1 Annual Retail Trade Survey and Annual Retail Non-Store Survey

The surveys are administered as part of the Statistics Canada's Unified Enterprise Survey Program (UES). The UES program has been designed to integrate, gradually over time, the approximately 200 separate business surveys into a single master survey program. The UES aims at collecting more industry and product detail at the provincial level than was previously possible while avoiding overlap between different survey questionnaires. The redesigned business survey questionnaires have a consistent look, structure and content. The unified approach makes
reporting easier for firms operating in different industries because they can provide similar information for each branch operation. This way they avoid having to respond to questionnaires that differ for each industry in terms of format, wording and even concepts. The combined results produce more coherent and accurate statistics on the economy.

These are sample surveys with a cross-sectional design. Response to the surveys is mandatory. Data are collected directly from survey respondents and extracted from administrative files.

All new potential respondents are pre-contacted by phone to confirm their classification as well as the contact information.

The survey is conducted using the mail-out / mail-back questionnaire approach, as well as using Computer Assisted Telephone Interviews (CATI) for capture, edit and follow-up. Data capture and preliminary editing are performed simultaneously to ensure the validity of the data.

In order to reduce the respondent response burden and still produce reliable figures, exclusion thresholds based on industrial, provincial, and size dimensions were implemented. Administrative (tax) data are used to estimate for small businesses below the threshold. Data for the retailing establishments above the prescribed threshold were collected mainly through questionnaires, but also through direct replacement with tax data for several businesses.

Following the sample selection process, data for the take-all and take-some strata are collected through questionnaires. However, tax data are substituted for survey collection for $55 \%$ of the selected 'simple' businesses, that is, those that operate in a single province and conduct all their activities in the same industry, under the same legal entity. The smallest units are not subject to sampling. They form a take-none stratum where a census of administrative (tax) records is used to calculate selected financial information. In the end, the surveyed population accounts for about three-quarters of the overall estimate.

On the Canadian Business Register, there were nearly 212,000 retail establishments having operated for at least one day during the reference year 2009. Of these, almost 203,000 were store retailers. The sample covered nearly 41,000 establishments. Data for these establishments were collected from a combination of tax data and survey data. In total, about 6,800 questionnaires were mailed while the rest of the data came directly from tax data for about 4,300 legal entities. Another 50,000 or more establishments are accounted for in the census of administrative records used to estimate the take-none stratum.

### 8.2 Monthly Retail Trade Survey (MRTS)

The Monthly Retail Trade Survey is a sample survey with a cross-sectional design. Response to this survey is mandatory.

The MRTS sample consists of 10,000 groups of establishments (clusters) classified to the Retail Trade sector selected from the Statistics Canada Business Register. A cluster of establishments is defined as all establishments belonging to a statistical enterprise that are in the same trade group and geographical region.

Smaller businesses are excluded from the surveyed population. These businesses should represent at most ten percent of total sales. Instead of sending questionnaires to these businesses, the estimates are produced through the use of administrative data.

MRTS is a repeated survey with maximization of monthly sample overlap. The sample is kept month after month and every month new units are added to the sample (births), or removed from the sample (deaths).

Data are collected directly from survey respondents and extracted from administrative files.
Respondents are sent a questionnaire or are contacted by telephone to obtain their sales and inventory values, as well as to confirm the opening or closing of business trading locations. Collection of the data begins approximately 7 working days after the end of the reference month and continues for the duration of the month following the reference month.

In an attempt to alleviate response burden and survey costs, especially for smaller businesses, the MRTS has reduced the number of simple establishments in the sample that are surveyed directly and instead derives sales data for these establishments from Canada's Goods and Service Tax (GST) files using a statistical model. The model accounts for differences between sales and revenue (reported for GST purposes) as well as for the time lag between the survey reference period and the reference period of the GST file.

### 8.3 Quarterly Retail Commodity Survey (QRCS)

This is a sample survey with a cross-sectional design. Response to this survey is mandatory.
The QRCS sample consists of a subset of retailers in the Monthly Retail Trade Survey (MRTS). In order to take full advantage of the information and infrastructure provided by an already existing retail survey, a two-phase sample design methodology was used where the first phase sample is the MRTS sample.

Data are collected directly from survey respondents. The questionnaire is tailored to the commodities sold by the retailer. Respondents are given a choice of collection methods: mail or telephone. They also have the choice to report commodity data in dollars or as a percentage of total sales and receipts.

If a respondent finds it more convenient to report their commodity data to Statistics Canada on a monthly basis, they are allowed to do so. Respondents may report annually when the commodity distribution of their sales does not vary throughout the year.

QRCS total sales estimates are benchmarked at the sampling group level to the sales estimates (before seasonal adjustment) from the Monthly Retail Trade Survey (MRTS). Total sales for QRCS differ slightly from the sales published by MRTS in that the sales of department store concessions are included in QRCS and not in MRTS.

## 9. Evaluation of comparability of turnover/output data with price index practices

The Distributive Trades Division (DTD) at Statistics Canada is responsible for surveys of revenue and expenses (turnover surveys), while the Producer Prices Division (PPD) is responsible for developing and producing the Services Producer Price Indexes (the Retail Services Price Index belongs to this group). The System of National Accounts is responsible for producing estimates of real and nominal GDP and use data from DTD (turnover) and PPD (margin prices) to generate these estimates.

The level of comparability between the Retail Trade Price Report and the turnover surveys is high for several reasons:

- Both surveys use the same industry classification system (NAICS).
- The sample for the Retail Trade Price Report is a sub-sample of the Annual Retail Trade Survey (ARTS) frame which is derived from Statistics Canada's Business Register.
- The first stage probability sampling for the Retail Trade Price Report was modified to incorporate an approximate $50 \%$ overlap with the Quarterly Retail Commodity Survey (QRCS). This overlap provided sales data by commodity group for the overlap sample units and permitted targeted second stage probability sampling to the commodity group level. It also facilitates one-to-one data confrontation of the overlap sampling units.

The RSPI and the turnover surveys conduct ongoing coherence analysis to ensure both surveys are tracking economic activity for this service and that activity makes sense. Analysts from Distributive Trade and the Producer Prices divisions frequently collaborate to confront and discuss outliers or other data anomalies.

The main difference between the surveys is frequency of collection - ARTS is annual whereas monthly prices data are collected on a quarterly basis.

## 10. Summary

The retail trade turnover program is an important source of information for the System of National Accounts. The data are used by government, the retail trade industry, researchers and economic analysts in assessing trends within the industry, measuring performance, benchmarking and to study the evolving structure of the retail trade industry.

The data from the Annual Retail Trade Survey are primary inputs into the Input-Output Tables, Canada's benchmark estimate of GDP. The results of the Monthly Retail Trade Survey are an important input to the projections of monthly GDP by industry and the first estimates of the Annual Provincial GDP by Industry. The rich commodity detail of the Quarterly Retail Commodity Survey provides a stable source of time series data for estimation of many of the goods components of personal expenditure.

Further work is needed in Canada to better integrate the commodity data of goods sold by retailers. Hopefully the North American Product Classification System will help provide the foundation.

## Appendix A <br> Annual financial variable definitions

Sales of goods purchased for resale - the total sales of merchandise purchased for resale, less returns, adjustments and discounts. Trade-in allowances are not deducted. Sales values of tradeins and parts used in repair are included. Goods and Services Tax (GST), Harmonized Sales Tax (HST) and any other sales taxes collected for remittance to a government are excluded.

Commission revenue from merchandise sales - the total gross commission revenue earned from selling merchandise on account of others. It includes commission revenue from concessions.

Commission revenue from services - the total gross commission revenue earned from selling services on behalf of others (e.g. lottery and bus tickets, phone cards).

Sales of goods manufactured - sales of goods produced by the business unit.
Repair and maintenance revenue - labour receipts from installation, repair and maintenance. It excludes parts used. Parts used are included in sales of goods purchased for resale.

Revenue from rental and leasing of goods - revenue from the rental or leasing of goods and equipment such as video, computer or tool rental.

Revenue from the rental of real estate - revenue received from renting out or leasing property owned by this business unit.

Other operating revenue - includes operating subsidies, and other types of revenue not elsewhere reported on the questionnaire. It excludes interest income and dividends, which are considered non-operating revenue.

Total operating revenue - the sum of sales of goods purchased for resale, commission revenue, sales of goods produced, repair and maintenance revenue, revenue from rental and leasing and other operating revenue.

Inventories - the value of goods held for resale in establishments and warehouses within or outside Canada and owned by the business unit. It includes inventory in transit or out on consignment to others. Excluded are goods held on consignment for others. Inventory data are reported at book value (i.e. the value maintained in the accounting records). The inventories would include any goods on hand resulting from any secondary manufacturing activity by the business unit.

Purchases - the value of total net purchases of goods (gross value less returns, adjustments and discounts) at delivered price (including freight-in, insurance, import duties and other related specific costs). This includes new and used goods purchased for resale, as well as direct labour costs and other direct costs for those business units carrying on secondary activity of a manufacturing nature.

Cost of goods sold - the cost value of goods sold and recognized in revenue, during the reporting period. It is determined by calculating:
Opening inventory + Purchases - Closing inventory.

Gross margin - the difference between total operating revenue and cost of goods sold.
Net margin - the difference between sales of goods purchased for resale and cost of goods sold.
Wages and salaries of employees - the total wages and salaries earned by all employees for the year (including head office and warehouse personnel), before deductions for income tax, unemployment insurance, employee social security contributions, etc. It excludes all payments and expenses associated with outside contract workers and employment agencies or personnel suppliers.

Employer portion of employee benefits - the employer expense portion of employee life and health/dental care plans, contributions to federal or provincial social security pension plans, employer pension contributions, workers' compensation, employment insurance premiums, retiring allowances/lump sum payments at termination or retirement. It excludes contributions to provincial health and education payroll taxes, which are reported under "all other operating expenses".

Total labour remuneration is the sum of salaries and wages of employees plus the employer portion of employee benefits.

Rental and leasing expenses - rental of office space or other real estate, motor vehicles (without driver), other machinery and equipment (without operator) and computers and peripherals (without operator).

Advertising and promotion - includes the service of advertising (planning, creating and placement) and the purchase of advertising space or time.

Amortization and depreciation expenses - includes capital assets, intangible assets and capital lease obligations.

Total operating expenses - includes the above expenses and other expenses related to the operations of the business unit such as management fees, payments and expenses associated with outside contract workers, goods transportation, warehousing and storage expenses, etc. This excludes interest expenses.

Operating profit - obtained by subtracting total operating expenses and the cost of goods sold from total operating revenues.

## APPENDIX B

## Commodity groups and detail collected on the Retail Commodity Survey

Food (excl. pet food \& meals \& lunches)
Fresh meat \& poultry (incl. cooked, cured \& smoked meats)
Fresh fish \& other seafood
Fresh fruit \& vegetables
Dairy products \& eggs (excl. ice cream)
Bakery products (in-house \& commercial)
Candy, confectionery \& snack foods
Deli (excl. cheese), salad bars \& prepared foods for take-out
Frozen foods (incl. frozen juice concentrates \& ice cream)
All other foods (excl. pet food $\&$ meals $\&$ lunches)

## Non-alcoholic beverages

Soft drinks
Other non-alcoholic beverages

## Alcoholic beverages

## Beer \& wine making supplies

## Meals \& lunches

## Pet food, supplies $\&$ accessories

## Tobacco products \& supplies

Housewares (non-electric) $\boldsymbol{\&}$ household supplies (excl. personal care products)
Tableware (excl. linens), kitchenware, cookware \& bakeware
Household cleaning supplies, chemicals \& paper products (incl. foil \& plastic wraps)
Other non-electric household supplies (brooms, mops, laundry baskets, ironing boards, light bulbs, flashlights, smoke detectors, etc.)

Personal care products/Health \& beauty aids (non-electric)
Cosmetics \& fragrances
Other toiletries/personal care products (excl. electrical appliances \& eyewear)

## Prescription eyewear

## Non-prescription eyewear

Home health care "sick room" equipment $\mathcal{\&}$ supplies (hearing aids, walkers, wheel chairs, crutches, artificial limbs, etc.; excl. exercise equipment)

## Drugs (prescription \& over-the-counter), vitamins \& other health supplements

Prescription drugs
Over-the-counter drugs, vitamins, herbal remedies \& other health supplements

Furniture (indoor), household appliances $\boldsymbol{\&}$ electronics (incl. cameras)
Furniture (excl. patio \& lawn furniture)
Mattresses \& foundations (excl. nursery)
Nursery furniture \& equipment (incl. mattresses, carriages \& strollers)
All other indoor furniture (incl. home office)
Household appliances
Major appliances
Small electrical appliances (incl. personal care electrical appliances)
Home electronics, computers \& cameras (incl. telephones)
Televisions \& audio/video equipment (excl. still cameras)
Still cameras \& related photographic equipment \& supplies

Computers, components \& related equipment
Computer software, business \& entertainment, multimedia items (excl. electronic games)
Telephones \& home office electronics
Home furnishings (excl. furniture, appliances \& electronics)
Floor coverings (incl. wood flooring) \& tiles (floor, wall \& counter)
Draperies \& other window treatments (incl. furniture coverings)
Bedding, linens \& bathroom accessories (incl. electric blankets)
Artwork \& other home decorating products (paintings, prints, lamps, clocks, silk flowers, statuettes, fireplace accessories, Christmas decor, etc.)

## Giftware, novelties \& souvenirs

Luggage \& leather goods (excl. purses \& wallets; incl. duffel bags, knapsacks, briefcases \& portfolios)

## Jewellery \& watches (excl. clocks)

## Clothing \& accessories

Women's clothing \& accessories (excl. specialized sports clothing)
Women's outerwear (incl. fur \& ski clothing)
Women's dresses \& suits
Women's skirts, pants, jackets, blouses, sweaters \& other tops \& bottoms
Women's hosiery
Women's lingerie, sleepwear \& intimates
Other women's clothing (incl. wedding gowns, bathing suits, occupational uniforms \& aerobic wear)
Women's fashion accessories (hats, gloves, scarves, purses, wallets, belts, umbrellas, etc.)
Men's clothing \& accessories (excl. specialized sports clothing)
Men's outerwear (incl. fur \& ski clothing)
Men's suits, sports jackets \& blazers
Men's pants, shirts, sweaters \& other tops \& bottoms
Men's underwear, sleepwear \& hosiery
Other men's clothing (incl. bathing suits, occupational uniforms \& aerobic wear)
Men's accessories (hats, gloves, scarves, ties, wallets, belts, umbrellas, etc.)
Girls' clothing \& accessories
Boys' clothing \& accessories
Infants' \& children's clothing \& accessories
Unisex clothing

## Footwear

"Athletic" footwear (excl. ski boots, skates \& cleated sports footwear)
"Non-athletic" footwear
Women's \& girls' footwear
Men's \& boys' footwear
Infants' \& children's footwear

## Recreational vehicles

Motor homes, travel trailers \& truck campers (incl. converted vans)
Motorcycles \& scooters (incl. all-terrain vehicles, mopeds \& motorbikes)
Boats \& other recreational vehicles \& accessories (boats \& motors, aircraft, snowmobiles, dune buggies, golf carts, personal watercraft, etc.)

Sporting goods (incl. specialized clothing, bicycles \& exercise equipment)
Bicycles, biking equipment \& accessories (excl. tricycles)
Hunting, fishing \& camping equipment \& supplies (firearms, ammunitions, tents, sleeping bags, etc., excl. tent trailers)
Hockey, baseball, football, soccer, volleyball \& basketball equipment \& supplies (incl. hockey skates, related cleated footwear \& team uniforms)
Ski equipment \& accessories, alpine \& cross country (incl. snowboards \& ski boots)
Golf equipment \& accessories (excl. clothing; incl. golf shoes \& gloves)
Exercise \& fitness equipment
All other sporting goods (figure skates, in-line skates, sail boards, tennis equipment, saddlery, binoculars, etc.)

Toys, games \& hobby supplies (incl. tricycles \& electronic games)
Fabrics, yarns, sewing supplies \& notions (excl. sewing machines)

## Craft \& artists' supplies

Musical instruments, accessories \& supplies (incl. sheet music)
Pre-recorded audio $\boldsymbol{\&}$ video tape $\boldsymbol{\&}$ disc ( $\&$ record) sales (excl. rental)

## Books, newspapers \& other periodicals

Books, hard \& soft cover
Newspapers, magazines \& other periodicals
Stationery, office supplies, cards, gift wrap \& party supplies (excl. artists' supplies)

## Hardware \& home renovation products

Plumbing, heating, cooling \& electrical equipment \& supplies
Paint, wallpaper \& related supplies
Tools, hand \& power (excl. garden tools)
Hardware (nails, fasteners, door knobs, hinges, etc.)
Lumber \& other building materials (excl. wood flooring \& tiles)
Other "hardware" \& building products n.e.c. (flagpoles, mailboxes, garage door openers, etc.)
Lawn \& garden furniture, equipment, supplies \& plants
Lawn/Garden/Patio furniture
Outdoor power equipment (lawn tractors, lawn mowers, snowblowers, etc.)
Lawn \& garden related products \& nursery stock
Nursery stock (plants, seeds, bulbs, sod, earth, fertilizers, etc.)
Other lawn \& garden related products (garden tools, hoses, wheel barrows, etc., also incl. pools, playground centers \& BBQ's)

## Cut flowers, indoor potted plants \& related floral supplies

## New automotive vehicles

Cars
Light trucks, vans, mini-vans \& sport utility vehicles
Medium/Heavy trucks \& buses
Used automotive vehicles
Cars
Light trucks, vans, mini-vans \& sport utility vehicles
Medium/Heavy trucks \& buses
Automotive parts $\mathcal{\&}$ accessories (new, used $\mathcal{\&}$ rebuilt)
Tires
Other automotive parts \& accessories
Automotive fuels, oils \& additives
Automotive fuels
Automotive oils \& additives (incl. windshield washer fluids \& antifreeze)

## Pets

Collectors' items (coins, stamps, cards, autographs, etc.)
Manufactured mobile homes (new \& used)

## Monuments \& tombstones

Farm equipment (new $\&$ used) $\boldsymbol{\&}$ farm-related products $\boldsymbol{\&}$ supplies

Professional $\boldsymbol{\&}$ scientific instruments $\boldsymbol{\&}$ equipment (microscopes, survey equipment, telescopes, etc.)

Used/second-hand merchandise n.e.c. \& antiques

## Household fuels

Labour receipts from automotive repairs, maintenance \& service

## Receipts from automotive rental

Receipts/commissions from non-automotive repairs, service, rental $\mathcal{\&}$ leasing
Video \& audio tape \& disc rental receipts
Other rental \& leasing receipts/commissions
Repair receipts/commissions
Receipts/commissions from the provision of a service

Other

## References

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[^0]:    ${ }^{1}$ North American Industry Classification System (NAICS) - Canada (2007) Catalogue no. 12-501-XPE

    2 "Electronic Commerce and Technology, 2006", The Daily, Friday, April 20, 2007 - Statistics Canada
    ${ }^{3}$ A guide to Deflating the Input-Output Accounts: Sources and Methods - 2001, Statistics Canada - Catalogue no. 15F0077GIE, pp 20-21.
    ${ }^{4}$ Gross Domestic product by Industry: Sources and Methods with Industry Details, Statistics Canada - Catalogue no. 15-548-XIE, pp 286-287.
    ${ }^{5}$ Guide to the Income and Expenditure Accounts, Statistics Canada - Catalogue no 13-017, p119, paragraph 7.43 and 7.44.

