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Sample Design for Goods and Services Components of the Canadian Consumer Price Index (CPI)

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1. Introduction

The Canadian Consumer Price Index Enhancement Initiative (CPI EI) is a major five-year project that started in 2010. One of the objectives is to produce a more representative Consumer Price Index (CPI) that is a better reflection of the consumer price change that Canadians are experiencing. In this context, a Sample Design Project was launched to develop and implement an improved monthly price sample.

The paper is organized as follows: Section 2 provides an overview of the Canadian CPI and the CPI Enhancement Initiative. In section 3, the Sample Design Project is presented while section 4 describes the sampling infrastructure that was built to select goods and services for the CPI: the geographical frame, the outlets per products type frame, as well as the sampling process for products and outlets. The section also described some key data sources of the design: Statistics Canada's Business Register and the Quarterly Retail Commodity Survey. Some specific examples are also presented: the Prescribed Medicines Index and the Passenger Vehicle Parts, Maintenance and Repairs Index. The last section discusses upcoming challenges: optimisation and maintenance of the sample design.

2. Canadian CPI and the CPI Enhancement Initiative

2.1. Overview of the Canadian CPI

The Canadian Consumer Price Index (CPI) is one of the most important economic indicators produced by Statistics Canada. It is used as an indexing factor in a number of fiscal formulas: many federal and provincial government programs are linked to the CPI by indexation clauses, and many wage contracts in the private and public sectors are linked to the CPI. It is also used as a measure to represent inflation, notably, by the Bank of Canada in setting its monetary policy. The CPI is also used as a deflator in calculating real Gross Domestic Product (GDP).

The Canadian CPI measures the rate at which the prices of a representative set of goods and services in a fixed consumer basket changes over time. The target population is defined as families and individuals living in private households anywhere in Canada. The CPI is computed by a weighted average of prices changes where the primary source of the weights is the Canadian Survey of Household Spending (SHS). Currently elementary aggregates for the Canadian CPI are defined as a combination of geographical (18 geographical strata) and product dimension (around 600 groups of products), for which we have expenditure weights updated during the basket update exercise. The geographical strata correspond to Canadian provinces and territories, except for three provinces: Ontario (4 strata), Quebec (2 strata) and British-Columbia (2 strata).

Most of the elementary price indexes are calculated using the Jevons Index. Once those indices are obtained, they are aggregated using a Laspeyres type index to calculate the Canadian CPI. This version is modified from the original formula; weights are price updated and the index is chain-linked to ensure continuity in the series. More details on how the current Canadian CPI is calculated can be found in Statistics Canada's publication "The Consumer Price Index Reference Paper" (1995).



2.2. Overview of the CPI Enhancement Initiative

The CPI Enhancement Initiative (CPI EI) is a five-year project (2010-2015) that seeks to improve the quality of the CPI basket and its updating, the index's price sample and the way prices are adjusted for changes in quality. At the end of the project, the index will be based on more solid methodologies and the technical infrastructure will be more efficient and robust. A maintenance plan will also be developed to ensure that the index remains representative over time.

The CPI EI is structured around four main outcomes:

- Provide a better picture of product price changes;
- Produce a more representative CPI to better reflect what Canadians purchase;
- Construct a profile that gives a better understanding of Canadians' consumption habits;
- Estimate pure price change more accurately.

The CPI Sample Design Project focuses on the first two outcomes and aims at improving the representativity of the sources of price changes (sample) for the goods and services components of the Canadian CPI.

3. The Sample Design Project

Before the CPI EI, the last revision of the CPI program dates back to the mid-1990s, a time of major cuts to various federal programs in Canada, when the program was reduced significantly. At that time:

- The size of the CPI sample collected locally by field interviewers went from an average of 100,000 prices collected per month to 60,000;
- To control costs, the task of selecting outlets and products was largely devolved to price collectors in the field, with their choices being subsequently approved by the Consumer Prices Division, the division in Statistics Canada responsible for conducting and managing the program;
- The number of product classes that were published was significantly reduced: they went from about 450 to 180.

Since this last revision, almost 20 years ago, changes made were mainly to keep the sample size constant. There was no overall significant revision of the portion of data collected locally and the content of the sample has remained relatively static since that time. In 2009, around 7,600 outlets were visited by price collectors over a one year period.

This is the context in which the new survey design aims to improve the representativity of goods and services for the portion of the CPI basket that is in scope for this project, i.e., expenditures representing 52.5% of the composition of the 2009 Canadian CPI basket (40.5% originating in retailing industries and 12% in services). These represent over 90% of the price quotes handled by the CPI standard processing systems (which refers to the 60 000 monthly processed price quotes



collected mentioned above). The frame creation and sampling process developed under this project were designed to be used to select sample for this portion of the CPI. [Appendix 1 illustrates the Canadian CPI Basket and the in-scope portion of the basket for this project].

The new sample is selected using more robust methods and makes use of Statistics Canada's Business Register and other Statistics Canada surveys. The new approach continues to rely on existing collection modes: e.g., prices collected by field collectors, telephone collection, or manual collection from the internet. However, it is noteworthy that the new sample design was conceived to be flexible in the face of the ongoing evolution of these collection modes, and adaptable to alternate new data sources like scanner databases obtained from retailers or by scraping the web, for example.

4. Canadian Sample Design for Goods and Services Components

4.1. CPI Sampling and the Consumer Price Index Manual

The Consumer Price Index Manual (2004) presents three dimensions to select a sample for a CPI:

1. The product dimension: *all goods and services available for purchase*. Section 4.5.1 will describe methods used in the Canadian CPI. Various Statistics Canada surveys, external data bases and data from the internet are used to improve products selection;
2. The geographical and outlet dimensions: *all places, outlets where a product is sold*. A geographical frame and an outlet frame were built to select the Canadian CPI sample, using Statistics Canada's Business Register, Census data and other Statistics Canada surveys. Those will be described in section 4.3 and 4.4, respectively. Note that online establishments that do operate in the country are part of this dimension and are in scope for the CPI;
3. The time dimension: this relates to capturing adequately the price movements over the sub-period of the index. This dimension is not covered here. Typically for the Canadian CPI, prices are collected once a month, on a specific week and day, except for gasoline, for which data are collected once a week.

Though not probabilistic in the true sense, the new Canadian CPI sample design is instead *inspired* by traditional probabilistic methods used in most Statistics Canada surveys and relies on the same elements of the agency's statistical sampling infrastructure used by other probabilistic surveys. This is described in the following sections.

4.2. Statistics Canada's Business Register

Statistics Canada's Business Register (BR) is a key infrastructural element that supports most of Statistics Canada's business surveys. It is a frame that includes all businesses operating within Canada. It provides different levels and types of information and uses well defined concepts to meet various statistical needs. Among these are activities related to the need to centrally control and manage the sample: sample selection, collection activities and response burden management. The information available through this central infrastructure also provides a good supporting tool for



different business analysis from subject matter perspective. (*A brief guide to the Business Register, 2009*).

The content of Statistics Canada's BR originates from administrative data, survey feedback and profiling activities. Namely, there are:

- The hierarchical organisational structure (*enterprise, company, establishment, location*). Location is the lowest entity within the integrated structure that can provide employment and/or revenue data. This entity was the one used to build the Canadian CPI frame, as it corresponds to a given outlet located at a certain address visited by field collectors.¹ The industry, based on the *North American Industrial Classification System 2012 (NAICS)*;
- A size measure associated with all organisational structures (such as *revenue* and *number of employees*);
- The geographical identification: the Standard Geographical Code (SCG), described below in section 4.3, is used and allows to make a link with the desired level of geographical detail;
- Contact information to support collection activity.

The Canadian CPI has historically maintained its own judgemental sample of outlets, and was never connected to the BR. As a result, it has always been difficult to know how truly representative the Canadian CPI sample of outlets truly was. Connecting to the BR became an objective of the project as doing so would offer many advantages, including:

- A way of verifying the representativity of the current outlet sample;
- A rationale for selecting a new and more representative outlet sample;
- A means of ensuring that changes to the outlet universe over time are faithfully reflected in the outlet sample.

However, before this could be done, certain adjustments needed to be made to allow for two particularities of CPI sampling:

- 1) The CPI is product-driven (the unit of interest is the price quote of a representative product bought for personal consumption by Canadians); therefore, a link had to be established between the industrial classification of the BR and the product-based classification of the CPI (this significant development is described in section 4.4).
- 2) Because CPI collection is largely done by field interviewers at the location level, and because this level of the BR is rarely used by other surveys², there was a risk that information available on the frame might be less reliable. A pre-contact module was therefore built to confirm key information (see section 4.5.2).

¹ If the CPI is eventually compiled on the basis of micro-data provided directly by certain retailers or scraped from the web, the enterprise or establishment level would likely be used for sample selection and contact information, and a version of the frame would be kept at this higher level for sample maintenance and response burden management.

² For example, surveys of retail sales at Statistics Canada are conducted at the higher establishment level.



One of the first steps of the project was to reconcile the current CPI outlet sample, which consists of 7,600 retail locations, with the location level entities contained in the BR. The matching rate was 95%, which indicated that almost all outlets visited by field interviewers were already appearing on BR. This matching exercise provided useful information to start analyzing the distribution and coverage of the CPI sample.

4.3. CPI Geographical Frame and Sample

The CPI geographical frame was built using the Standard Geographical Classification (SGC), which is Statistics Canada's official classification for geographical areas in Canada. The SGC covers all of the provinces and territories of Canada. Census sub-divisions (which correspond to municipalities) were defined as the sampling unit for the geographical frame. This choice was justified for several different reasons: this legal definition is stable through time, it would meet all the current and upcoming needs to add or publish new indexes for a different geographical level and it is currently available and maintained on the BR.

Representativity was defined by where people live (estimated using population counts from the 2006 Census data, the latest available at that time) and where consumers shop (estimated by retail activity using the BR, namely the number of locations belonging to retailing and services industry NAICS in scope for the CPI, as well as their associated total revenue). These three size measures (population counts, number of locations by NAICS, total revenue) were derived for all Census sub-divisions in Canada.

In the effort to continue to produce high quality indexes for provinces and territories and some cities, the stratification and sample selection were examined to ensure they accounted adequately for regions that had experienced major growth in population and retail activity.

As a result, the geographical stratification, which aims to ensure control and clarity about the sources of the price change, was revised. Canada is now partitioned into 19 geographical strata, instead of 18, with a new strata being added to the province of Quebec, a change made effective with the release of the 2011 basket update. Moreover, prices are now collected in two new census sub-divisions for which we have seen major population growth in the last 20 years. They are currently collected in parallel collection and will enter the official CPI calculation before the end of 2013.

Sample selection was done by using a score function to rank and derive the most representative census sub-divisions. Final selection was done by maximizing overlap with the previous CPI sample to control cost and maintain continuity. For purposes of efficiency, census-subdivisions were broken down into collection areas; census tracts, another level of geographical detail available from the SGC, were used to optimise collection activities. More details on the geographical sampling process can be found in *Cook (2012)*.



4.4. CPI Outlets x Products Type Frame

The Canadian CPI basket is divided into 8 major components (see Appendix 1) and uses an in-house classification covering all products available for consumption. To construct an outlet frame that would sustain the selection of outlets for a selected product in the CPI, the entire portion of the CPI basket related to products that belonged to the NAICS retail industries were mapped to the commodity classification used by the Canadian Quarterly Retail Commodity Survey (QRCS), while those that were related to products that belong to services industries, were mapped using eight different Statistics Canada Service Industry Surveys.

This was done for each in-scope index or sub-index, in the following manner:

CPI products and the Quarterly Retail Commodity Survey (around 40% of 2009 CPI Basket)

The QRCS collects detailed information about retail commodity sales in Canada and is aiming at producing estimates of the distribution of the sales of various commodities at the national level for different type of retail outlets in Canada. It can provide commodity market shares by certain type of outlets, revealing where consumers prefer to buy certain products and illustrating over time shifts in the different types of commodities retailers decide to sell. As such, the QRCS is an invaluable adjunct to outlet selection. The QRCS collects data for around 120 commodity types that could be reconciled with around 40% of the CPI basket that corresponds to products belonging to the retail industries. This mapping exercise created around 70 CPI Products Type for which estimated sales are available and for which NAICS that should be targeted for outlet sampling were identified. It can be seen as 70 individual frames for group of products within the CPI basket, with potential overlap between them.

CPI Products and Services Industries Surveys (around 12% of 2009 CPI Basket)

Data from eight services surveys (Survey of Service Industries: Amusement and Recreation, Personal Services; Food Services and Drinking; Consumer Goods Rental; Motion Picture Theatres; Traveller Accommodation; Travel Arrangements and Automotive Equipment Rental & Leasing) were used similarly to derive sales estimates for some 30 CPI Products Type that correspond to 12% of the CPI basket related to products belonging to service industries.

Together, the outcome of this mapping process is the Canadian CPI outlets x Products Type Frame. For around 590 000 outlets operating in Canada, estimated sales for around 100 CPI Products Type were derived as described above and are available for sampling purposes. Only outlets belonging to NAICS that correspond to a significant portion of the market share were kept on the frame. Various variables available from the BR can now be used to support and increase sample efficiency, assess coverage or any other analytical uses, for example estimating or comparing indexes for some subset of the market. For each location, variables available are:

- Outlet information: operating information, legal name, and link with higher entity: establishments, enterprises;
- Geographical information: based on Standard Geographical Classification described in 4.1;
- Type of outlet:



- Independent or main banners (that can be derived from the business register structural information);
- Type of store (department store, specialty store or others, derived using the NAICS classification);
- Size measure:
 - Estimated sales per CPI Products Type mentioned above. Note that internet sales are included in total sales. It is currently not possible to distinguish between in-store and on-line purchases. Regarding internet purchases, some businesses that only sell products on-line to Canadians appear on the BR;
 - Overall revenue.

While each individual frame supports the sampling process for each index or sub-index, the common frame supports other statistical activities as well: sample maintenance and coordination, improving collection efficiency and managing response burden. Table 1 below gives an example of links between CPI Products Type and NAICS.

Table 1: Example of CPI Products Type and NAICS for two CPI index

Index	CPI Products Type	NAICS
Prescribed Medicines	<ul style="list-style-type: none"> ● Prescribed drugs 	446110 -Pharmacies and drugs stores 445110 - Supermarket and other grocery (except convenience stores) 452110 - Department stores 452910 - Warehouse clubs
Passenger Vehicle Parts, Maintenance and repairs	<ul style="list-style-type: none"> ● Automotive fuels ● Automotive oils & additives ● Tires ● Other automotive parts & accessories 	441110 - New car dealers 441120 - Used car dealers 441310 - Automotive parts & accessories stores 441320 - Tire dealers 447110 - Gasoline stations with convenience stores 447190 - Other gasoline stations 452991 - Home & auto supplies stores 811111 - General automotive repair 811112 - Automotive exhaust system repair 811119 - Other automotive mechanical & electrical 811121 - Automotive body, paint & interior 811122 - Automotive glass replacement shops 811199 - All other automotive

4.5. Canadian CPI Sampling Process

4.5.1. Product Sampling

Product sampling is done for each index or sub-index, one at a time, and aims at identifying the most *representative products*, products (goods or services) for which prices will be collected and used in the index estimate. Various methods and sources can be used for product sampling, but databases with adequate content are rarely easily available. If they are, they are often costly or require intensive processing. Key features of those databases: a good coverage and range of products offered on the market with their associated sales over a given period.



In product sampling, the first step is to ensure that the classification is accurate. Often data sources for product sampling and classification can share similar types of information, and after some analysis to identify representative products, the structure of the elementary aggregate is updated. Once representative products (RP) are selected, *RP descriptions* are written, which describe and identify features of the selected products. The RP descriptions are basically the questionnaires of the CPI program. Below are examples of what has been done so far in the context of the sample design project. Some of the work is currently being collected in parallel mode and should enter in the official CPI in the upcoming months.

For the Prescribed Medicines index (0.6% of CPI Basket 2009), data from a private company were purchased which provided sales for the main therapeutic classes (9) for prescribed drugs sold in Canada; generic versions of drugs were also provided for each therapeutic class. The elementary aggregate structure was updated and 25 representative products were selected among therapeutic classes and for both versions of drugs (patented and generic) and replaced the former 16 products in the sample.

For the Passenger Vehicle Parts, Maintenance and Repairs index (1.8% of CPI basket 2009), representative products were selected based on data provided by the *Light Vehicle Survey*, an annual survey conducted by an external organization that estimates the main type of repairs performed by Canadian households over a 5 year period. For some selected products, prices are collected for a variety of types of vehicles (cars, trucks, vans or SUVs) to take into account potential differentiation of price movements by type of vehicle.

For the Travel Tours index (1.0% of CPI basket 2009), Statistics Canada's International Travel Survey was used to identify the most popular destinations for Canadians depending on their departure cities. *For some appliances and some electronics goods*, Consumers Trend Reports were bought and product information was obtained from the internet manually and by using web-scraping software. *For the Funeral Services index (0.2% of CPI basket 2009)*, the Funeral Association of Canada and the Cremation Association of North America were consulted to understand the industry; to update *the Clothing index (5.6% of the CPI basket 2009)*, external databases on specific clothing purchased by Canadian households were bought.

4.5.2. Outlet Sampling

During the product selection process, some attention was given to the market segmentation and understanding consumer's habit in regards to the representative products. For example, understanding if prices for those products are influenced locally or regionally will provide guidelines on geographical sample distribution; if purchases are done in store or on-line, it will influence collection mode. Estimated sales of CPI products per type of outlet (in terms of size or department store or specialty store) will provide an indication of which stratification variables to use from the CPI Outlet Frame to make sure that price movements are representative of where Canadians buy their products. Once a representative product is selected, it can be mapped to its corresponding CPI Products Type on the CPI Outlets x Products Type Frame and outlet selection can be performed. The



sample is selected to account for some main distribution (at a high level) that can be found on the CPI frame or that was suggested during the analysis for the product sampling.

A first phase sample is selected and a pre-contact process is done in Statistics Canada Regional Offices, the center responsible to conduct collection. This pre-contact is done by phone prior to prices collection. Done on a quarterly basis starting in 2013, this step is aimed at confirming the operating name and address, main business activity (NAICS) and confirming the types of products carried in the outlets. The core of this module is used by a variety of Statistics Canada surveys. One of the advantages is that the collected data is also used to update the information on the BR for other surveys or future occurrence of the CPI. Following the pre-contact, a sample is then selected among outlets that are in scope. Note that if eventually the CPI moves to using electronic questionnaire reporting, this module could be used to get e-mail addresses from survey respondents.

4.5.3. Sample Allocation

While the sections above described how the CPI sample is selected, we have yet to specify how many price quotes need to be selected to ensure a representative sample. Inspired by techniques used in probabilistic sampling methods (power allocation) a formula was developed to take into account the volatility of price movements, the basket weights and collection cost. More details can be found in Beaulieu (2011).

4.5.4. Probabilistic or Non-Probabilistic?

The sample design outlined above is a multi-stage design that can be defined as follow: (1) the first stage is the product sampling, in which a representative product is selected, for which prices will be collected according to a geographical and outlet dimension. (2) The second stage sampling is the selection of geographical collection area, done with a two-phase sampling scheme: one for census sub-divisions, the second for census tracts (collection areas). (3) The third stage is the outlets sampling: selected using a two-phase sampling scheme again: one for the pre-contact process, the second for field data collection.

In the present context, it appears to be relatively difficult to introduce a pure random sampling process to select geographical areas and outlets. The selection process is subject to several operational constraints (e.g., the locations of price collectors, the maximisation of goods in the selection of outlets) that greatly reduce the capacity to select random samples. Instead, we favoured the selection of “representative” regions and outlets that try to minimise possible selection biases. This method is the one used by most countries and, for now, it appears to be the most appropriate, given all our constraints, for the selection of geographical areas and outlets for the Canadian Consumer Price Index.

While not probabilistic, sample selection at stages (2) and (3) can be seen as similar to a proportional to size sample design. Therefore, simulated sample design weights (coming from the probability of selection) are available for stage (2), using the Geographical Frame and stage (3), using the Outlets x



Products Type Frame. Under these assumptions, simulated sampling variances can then be computed to assess the homogeneity of the price movement. These can be used for development or index evaluation purposes. In the context of the Sample Design Project, simulated probabilistic samples and variances were used in the development of the sample allocation formula described in section 4.5.4.

5. Conclusion and Upcoming Challenges

The first cycle of the project was to develop the statistical infrastructure to select the Canadian CPI sample. The current sample design and namely all the auxiliary information available through the creation of the two levels of CPI frames (Geographical and Outlets x Products Type) has helped to assess the current state and coverage of the CPI sample and work is underway which aims at improving its representativity. The framework is also there to support and bring an increased flexibility to modify the CPI sample and support new geographical requirements. The CPI Outlets x Products Type Frame is a useful tool to coordinate collection activities and manage response burden from a corporate point of view, while providing a useful analytical database to study and modify the CPI sample. Also, although emphasis was on current collection mode used by the Canadian CPI, it could be adapted for other collection modes. Before the end of the CPI EI and as part of the ongoing strategy after that, there remain challenges related to the CPI sample. Optimisation and maintenance are the two most important ones and are described below.

5.1. Optimisation

Given the wide variety of price movements to capture, the limited time, budget, availability of perfect frames, an infinite amount of imperfect data sources, operational challenges are a reality that need to be taken into account in trying to summarise price movements. In this context, some effort should be dedicated to develop and implement optimisation techniques, which is part of the second cycle of development work in the CPI sample design project. Among methods considered, sample coordination (optimising the number of products to collect among outlets) and defining optimised workload assignments for interviewers by using an algorithm that optimises spatial collection areas with high retail activity. Another method considered is to make use of the type of outlets or mode of purchase in the definition of the elementary aggregate. One of the challenges of developing and implementing optimisation techniques lies in developing a better understanding of costs and benefits, not only collection costs, but the overall cost of the program, including data acquisition and processing.

5.2. Maintenance

Finally, given the dynamic aspect the economy, properly tracking and summarising price movements overtime needs careful planning and is part of a maintenance process that needs to be outlined and followed to keep the CPI accurate. This entails managing the following aspects of the program: *(1) Monthly management of the sample*: by ensuring that indexes are published using a minimal number of quotes and that sample distribution is still representative of a targeted high level distribution. Also,



by documenting the arrival of important new retailers and planning their introduction at the appropriate time in the CPI calculation, as well as having a process to introduce outlets and products on an ongoing basis. (2) *Regular maintenance of the CPI frames and overall sample distribution*: By performing a re-stratification of the CPI Frames and by re-doing a general sample allocation of the CPI sample. (3) *Regular review of index content and their suitable collection mode*: By planning the review of CPI content over a given period of time (multi-year cycle), that would cover planning for data acquisition, updating elementary aggregate structure and migrating sample partially or totally to a more suitable collection mode.

6. References

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Appendix 1. Canadian CPI and the Sample Design Project

The in-scope portion of the CPI sample design project is highlighted in orange.

The 8 major components of the CPI basket are highlighted in blue.

Product Code	Products and Product Groups Name	2009 Basket Weights	Weights in Scope
0	ALL ITEMS	100	52.5
1	FOOD AND NON-ALCOHOLIC BEVERAGES	16.1	16.1
11	FOOD AND NON-ALCOHOLIC BEVERAGES PURCHASED IN STORES	11.2	
12	FOOD AND NON ALCOHOLIC BEVERAGES PURCHASED FROM RESTAURANTS	4.8	
2	SHELTER	27.5	1.7
21	RENTED ACCOMMODATION	6.2	
22	OWNED ACCOMMODATION	16.8	
2205	HOMEOWNERS' MAINTENANCE AND REPAIRS	1.3	
23	WATER, FUEL AND ELECTRICITY	4.4	
2304	FUEL OIL AND OTHER FUELS	0.4	
3	HOUSEHOLD OPERATIONS, FURNISHINGS AND EQUIPMENT	11.8	7.8
3101	COMMUNICATIONS	3.1	
310104	TELEPHONE EQUIPMENT	0.1	
310201	CHILD CARE	0.8	
31020201	MINIMUM HOURLY WAGE	0.2	
31020202	HOUSE CLEANING SERVICE	0.2	
3103	HOUSEHOLD CHEMICAL PRODUCTS	0.5	
3104	PAPER, PLASTIC AND FOIL SUPPLIES	0.6	
3105	OTHER HOUSEHOLD GOODS AND SERVICES	2.9	
310501	PET FOOD AND SUPPLIES	0.5	
310502	SEEDS, PLANTS AND CUT FLOWERS	0.2	
310503	OTHER HORTICULTURAL GOODS	0.1	
310504	OTHER HOUSEHOLD SUPPLIES	0.2	
310505	OTHER HOUSEHOLD SERVICES	1.2	
31050504	Funeral Services	0.2	
310506	FINANCIAL SERVICES	0.7	
3201	FURNITURE AND HOUSEHOLD TEXTILES	1.7	
3202	HOUSEHOLD EQUIPMENT	1.6	
320201	HOUSEHOLD APPLIANCES	0.8	
3203	SERVICES RELATED TO HOUSEHOLD FURNISHINGS AND EQUIPMENT	0.2	



4	CLOTHING AND FOOTWEAR	5.6	5.6
41	CLOTHING	3.7	
42	FOOTWEAR	0.9	
43	CLOTHING ACCESSORIES AND JEWELLERY	0.6	
44	CLOTHING MATERIAL, NOTIONS AND SERVICES	0.3	
5	TRANSPORTATION	19.3	6.3
5101	PURCHASE, LEASING AND RENTAL OF PASSENGER VEHICLES	7.8	
510101	PURCHASE AND LEASING OF PASSENGER VEHICLES	7.7	
510102	RENTAL OF PASSENGER VEHICLES	0.1	
5102	OPERATION OF PASSENGER VEHICLES	9.6	
510201	MOTOR VEHICLE FUEL	4.4	
510202	PASSENGER VEHICLE PARTS, MAINTENANCE AND REPAIRS	1.8	
5201	LOCAL AND COMMUTER TRANSPORTATION	0.6	
5202	INTER-CITY TRANSPORTATION	1.2	
5299	OTHER PUBLIC TRANSPORTATION	0.1	
6	HEALTH AND PERSONAL CARE	5.0	4.9
6101	HEALTH CARE GOODS	1.5	
610101	MEDICINAL AND PHARMACEUTICAL PRODUCTS	0.1	
61010101	PRESCRIBED MEDICINES	0.6	
61010102	NON-PRESCRIBED MEDICINES	0.4	
610102	EYE CARE GOODS	0.4	
610201	EYE CARE SERVICES	0.1	
610202	DENTAL CARE	0.8	
610203	OTHER HEALTH CARE SERVICES	0.3	
6201	PERSONAL CARE SUPPLIES AND EQUIPMENT	1.3	
6202	PERSONAL CARE SERVICES	1.0	
7	RECREATION, EDUCATION AND READING	11.8	7.2
7101	RECREATIONAL EQUIPMENT AND SERVICES (EXCLUDING RECREATIONAL VEHICLES)	1.8	
71010301	COMPUTER EQUIPMENT, SOFTWARE AND SUPPLIES	0.7	
7102	PURCHASE AND OPERATION OF RECREATIONAL VEHICLES	1.3	
7103	HOME ENTERTAINMENT EQUIPMENT, PARTS AND SERVICES	1.3	
7104	TRAVEL SERVICES	2.2	
710401	TRAVELLER ACCOMMODATION	1.2	
710402	TRAVEL TOURS	1.0	
7105	OTHER CULTURAL AND RECREATIONAL SERVICES	2.3	
71050101	MOTION PICTURE SHOWINGS	0.2	
71050102	ADMISSIONS TO LIVE SPORTING EVENTS	0.1	
71050103	LIVE STAGED PERFORMANCES	0.2	
710502	CABLEVISION AND SATELLITE SERVICES (INCLUDING PAY PER VIEW TELEVISION)	1.1	



710503	USE OF RECREATIONAL FACILITIES AND SERVICES	0.6	
7201	EDUCATION	2.4	
720101	TUITION FEES	1.9	
72010201	SCHOOL SUPPLIES	0.1	
72010202	TEXTBOOKS	0.2	
720103	OTHER LESSONS, COURSES AND EDUCATION SERVICES	0.1	
7202	READING MATERIAL AND OTHER PRINTED MATTER (EXCLUDING TEXTBOOKS)	0.5	
720201	NEWSPAPERS	0.2	
720202	MAGAZINES AND PERIODICALS	0.1	
720203	BOOKS AND OTHER PRINTED MATTER (EXCLUDING TEXTBOOKS)	0.2	
8	ALCOHOLIC BEVERAGES AND TOBACCO PRODUCTS	3.0	3.0
81	ALCOHOLIC BEVERAGES	1.8	
82	TOBACCO PRODUCTS AND SMOKERS' SUPPLIES	1.2	