# Chapter 5. Wholesale and retail trade services

This chapter presents practical guidance as well as main issues and challenges for compiling SPPI for Wholesale and retail trade services (ISIC 46-47).

#### 5.1. Wholesale and retail trade services (Catherine Draper, Statistics Canada)

#### 5.1.1. Industry description (ISIC 46-47)

In general, the retailing and wholesaling industries (commonly referred to as the distributive trades sector) represent the intermediate steps in the distribution of merchandise between producers and consumers of goods. Wholesale and retail trade services are crucial to the efficient and effective flow of goods from producer to consumer.

Together the wholesaling and retailing industries account for significant portions of economic output and global employment.

- Wholesalers act as marketing intermediaries that neither produce nor consume the finished product, but instead sell to retailers, other merchants, and/or to industrial, institutional, and commercial users.
- Retailers are organised to sell merchandise (generally without transformation) in smaller quantities to the general public for personal or household consumption, and to other business and institutional clients. There are two main types of retailers: store and non-store.

Garneau et al. (2011) note that "Services Producer Price Indices for retail and wholesale trade should focus primarily on the "merchant" distributive trade services provided by establishments that purchase and re-sell goods, as measured by changes in margin prices …".

In Canada, the SPPI program pricing methodology for the distributive trades sector is defined as the margin price per unit which represents the price of the wholesaling or retailing service. Both the wholesale and the retail services price indices strive to measure the change in the price of the service and not the price of the product. Respondents provide the purchase price and the selling price for a selected product and a margin price per unit is calculated. Margin prices represent the difference between the prices at which retailers and wholesalers purchase and sell their products. This is represented mathematically as follows:

 $MP^{t}$  unit =  $SP^{t}$  selling price/unit -  $PP^{t}$  purchase price/unit

The margin price can be used to deflate the gross margin thereby providing a measure of real output for the distributive trades sector in the System of National Accounts. Wholesale and retail services price indices can also be used to evaluate different aspects of a product value chain, for example by allowing for the measurement of value added by wholesale distribution and retailing to the final consumer.<sup>1</sup>

#### 5.1.2. Classification aspects

### 5.1.2.1. Industry classification

In both the ISIC and NACE classification systems wholesale and retail trade services are classified under section G - Wholesale and retail trade; repair of motor vehicles and motorcycles including three divisions as follows:

- Division 46 comprises wholesale trade, except motor vehicles and motorcycles;
- Division 47 of retail trade, except of motor vehicles and motorcycles;

• The wholesaling, retailing and repair of motor vehicles and motorcycles, which are outside of the scope of this section, are classified separately under Division 45.

Division 46 - Wholesale trade

Under the ISIC classification wholesale trade is broken down into seven classes mainly according to the type of goods traded:

- 461 Wholesale on a fee or contract basis;
- 462 Wholesale of agricultural raw materials and live animals;
- 463 Wholesale of food, beverages and tobacco;
- 464 Wholesale of household goods;
- 465 Wholesale of machinery, equipment and supplies;
- 466 Other specialized wholesale;
- 469 Non-specialized wholesale trade.
- A more detailed disaggregation of classes is provided in the NACE classification.

The NAICS classifies wholesale trade under sector 41, which is broken down into nine subsectors and includes the wholesaling of motor vehicles:

411 - Farm product merchant wholesalers;

- 412 Petroleum and petroleum products merchant wholesalers;
- 413 Food, beverage and tobacco merchant wholesalers;
- 414 Personal and household goods merchant wholesalers;
- 415 Motor vehicle and motor vehicle parts and accessories merchant wholesalers;
- 416 Building material and supplies merchant wholesalers;
- 417 Machinery, equipment and supplies merchant wholesalers;
- 418 Miscellaneous merchant wholesalers;
- 419 Business-to-business electronic markets, and agents and brokers.

These subsectors are further disaggregated into a large number of industries.

### Division 47 - Retail trade

In both the ISIC and NACE classifications retail trade services are classified into nine groups by type of sale outlet. These groups are further subdivided by the range of products sold or by the forms of trade in the case of sales not via stores. Again, the NACE classification provides more detailed subdivisions. The ISIC groups are:

- 471 Retail sale in non-specialized stores;
- 472 Retail sale of food, beverages and tobacco in specialized stores;
- 473 Retail sale of automotive fuel in specialized stores;
- 474 Retail sale of information and communications equipment in specialized stores;
- 475 Retail sale of other household equipment in specialized stores;

476 - Retail sale of cultural and recreation goods in specialized stores;

477 - Retail sale of other goods in specialized stores;

478 - Retail sale via stalls and markets;

479 - Retail trade not in stores, stalls or markets.

The NAICS classifies retail trade activities under sectors 44 and 45, which are broken down into twelve subsectors:

441 - Motor vehicle and parts dealers;

442 - Furniture and home furnishings stores;

443 - Electronics and appliance stores;

444 - Building material and garden equipment and supplies stores;

445 - Food and beverage stores;

446 - Health and personal care stores;

447 - Gasoline stations;

448 - Clothing and clothing accessories stores;

451 - Sporting goods, hobby, book and music stores;

452 - General merchandise stores;

453 - Miscellaneous store retailers;

454 - Non-store retailers.

These twelve subsectors are further disaggregated into a large number of industries.

A review of the different international industry classifications (ISIC, NAICS and NACE) suggests that they cover and define essentially the same activities, although there are some differences. For example, motor vehicle and parts dealers are included separately under NAICS 441 and wholesaling on a fee or contract basis (wholesale agents and brokers) is distinguished from merchant wholesaling and in-store retailing is distinguished from non-store retailing.

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, whereas the retailing methods used by non-store retailers differ. The establishments in the non-store subsector reach customers and market merchandise via such methods as the broadcasting and publishing of direct-response advertising, electronic catalogues, door-to-door solicitation and distribution by vending machines, etc.

Issues concerning classification of activity can surface in the wholesale trade sector where it is often difficult to distinguish between wholesaling and manufacturing. This could lead to the misclassification of business enterprises. The concept of *transformation* is used to resolve the discrepancies between distributive trades and manufacturing. Manufacturing establishments are generally engaged in the transformation of materials into new products, whereas wholesalers are generally engaged in the breaking of bulk and/or redistribution into smaller lots. The wholesaler produces a modified version of the same product, not a new product.

#### 5.1.2.2. Product classification

In the CPC product classification system, wholesale trade services are classified under section 6 - Distributive trade services, accommodation, food and beverage services, division 61 - Wholesale trade services. The classification system delineates wholesale trade services into two groups according to whether the wholesaler purchases goods before selling them or negotiates wholesale commercial transactions for a fee or a commission (without taking ownership of the goods). Each of these groups is then divided into classes based on the types of goods transacted.

The CPA product classification differs slightly in that wholesale trade services on a fee or contract basis are identified as a separate group (3-digit) alongside other classes based on the type of goods transacted.

Retail trade services are classified in the CPC under section 6 - Distributive trade services, accommodation, food and beverage services, division 62 - Retail trade services. This division is split into four groups according to the type of outlet (namely; non-specialized stores, specialized stores, mail order or internet and other non-store outlets). A fifth group provides for retail trade services on a fee or contract basis. Subclass 62281 comprises specialised store retail trade services of motor vehicles, motorcycles, snowmobiles and related parts and accessories although, as previously noted, in the ISIC classification of industry the wholesale and retail trade and repair of motor vehicles and motorcycles is classified separately under division 45.

The CPA classification differs in that it delineates retail trade services according to the type of goods sold rather than the type of outlet. No separate classification is provided for retail trade services on a fee or contract basis. Furthermore, the CPA follows the NACE and ISIC systems in respect of the classification of wholesale and retail trade and repair services of motor vehicles and motorcycles under a separate division.

Canada, the U.S. and Mexico have adopted the North American Product Classification System (NAPCS). Although NAPCS product lines are not currently used for the U.S. product-based index structure and Statistics Canada does not currently produce product indices for the distributive trades sector, product coding on a NAPCS basis may be on the horizon for retail and wholesale SPPIs in both Canada and the U.S.

#### 5.1.3. Scope of the survey

The main output for retail and wholesale trade is the margin on the sale of goods within each of these sectors.

The target population for the distributive trade surveys are all establishments primarily engaged in retailing and wholesaling. For those countries following the ISIC or NACE classification systems, wholesalers and retailers of motor vehicles and motorcycles are outside the scope of the survey.

Wholesale agents and brokers, retail automobile and other motor vehicle dealers and non-store retailers are currently not in scope for the Canadian distributive trade's services price indices, but may be added at a later date. The U.S. publishes indices for wholesale agents and brokers, new car dealers, and non-store retailers under distributive trade.

#### 5.1.4. Industry vs. Product based SPPI

The U.S. publishes product based SPPIs for the wholesale and retail trades. These indices measure price for specific service products, regardless of the service provider's industry of origin.

At the time of the writing, Canada has not published retail and wholesale data at the product level. The survey is sampled at the industry level and price information is collected at the service product or product line level. However, because several industries are covered, sufficient detail is available to approximate product movements. In order to compile product level indices, it is necessary to have comprehensive weights for all of the activities in which the sampling unit is engaged. This information is currently not available for the wholesaling industry in Canada. Commodity level weights are available for retail, although their fitness-for-use remains to be assessed.

## 5.1.5. Sample design

Traditionally, most compilers adopt a 2-stage approach for designing samples that are used to collect price data for estimating a price index. Sample selection with probability proportional to size (PPS) is recommended when choosing a sample for the distributive trades sector. Sample units are selected at the 5-digit NAICS level and then further stratified based on size (*e.g.* establishment revenue).

Canada maintains a Business Register (BR) which is used as the sampling frame for wholesalers and retailers. The BR is the sample source for both the SPPIs and the turnover surveys. This common sampling source facilitates the compilation of comparable price and turnover statistics.

Both enterprise and establishment level sampling pose unique challenges for distributive trades. In Canada, the initial intent when designing the distributive trades surveys was to sample at the establishment level. However, the establishment level sample for the retail sector had a high degree of variability arising from the legal structure of the business entity, creating potential quality issues and implications for estimation. In some cases, major retailers were significantly over or under represented in the sample and different iterations of the same sample specifications yielded different results. The challenge of enterprise-based sampling is that there can often be multiple banners (a retail banner is a brand name under which a set of stores is operated) organised under a single enterprise.

It is important to identify the respondent enterprise's corporate structure during the initialisation process, in order to establish an appropriate reporting arrangement. Respondents may also find it difficult to aggregate price information across multiple banners to the enterprise level. This may contribute to respondent fatigue and make price collection more difficult.

In Canada, an enterprise-based resample was undertaken for the retail sample in order to minimise these issues. All establishments within a given enterprise and NAICS subsector were rolled up to determine the total revenue for that enterprise for that particular NAICS. The sampling unit from which prices are collected consists of all operations for a specific NAICS activity within the enterprise. As mentioned above, in cases of particularly large enterprises with multiple banners, caution is required to ensure that the enterprise is adequately and accurately represented in the index. In order to minimise the response burden imposed on smaller retailers and wholesalers and to restrict units that have a negligible impact on index calculation from entering the sample, a minimum revenue threshold can be established. Any sample units that fall below this threshold can be excluded from the target population. Subject matter experience can help reduce burden by guiding the respondent through the complexity, detail, and precision associated with reporting prices and product specifications.

## 5.1.6. Collection of information and specification of the service

## 5.1.6.1. Timing and frequency of price collection

In the U.S., average purchase prices (collected based on replacement costs) and average selling prices for retail and wholesale transactions are obtained on a monthly basis.

In Canada, average purchase and average selling prices for retail and wholesale are measured monthly but collected on a quarterly basis.

In Australia, sales and Cost of Goods Sold (COGS) data for a range of commodity groups to calculate retail trade margin prices are collected quarterly from retail outlets.

#### 5.1.6.2. Description of the Survey

Respondents are asked to price select products or product lines that are representative of their business activity based on the revenue (ideally margin revenue, otherwise sales revenue) generated by these products. Ideally, the reported products should be high volume, year round sellers. In addition to the product description and specifications, the product purchase and selling prices are collected.

Respondents are requested to report for the selected products over time. Prefilled questionnaires, containing detailed product specifications and price information that was previously reported, are used to facilitate the identification and tracking of a constant quality product over time.

## 5.1.6.3. Survey variables collected

The main variables collected by the retail and wholesale price surveys include:

- Average purchase price: The average purchase price is defined as the cost to purchase a product/service from the supplier, excluding all taxes. In the U.S., replacement costs are used as the average purchase prices. These represent the prices that a retailer or wholesaler would pay if they were to purchase the selected products in the current period. The most recent price paid by the establishment to acquire a product from the supplier may be used as a fall-back if the respondent is unwilling or unable to identify the current period replacement cost;
- Average selling price: The average selling price is defined as the cost to the purchaser, excluding taxes and freight;
- Main reason for purchase or selling price change: Identifies the reason for a change in the purchase or selling price. Reasons can range from a change in the product, change in supplier, inflation or exchange rate fluctuations. In the U.S. this information is also obtained via phone calls to respondents;

- Product description: Identifies specific products by name, colour or other product attribute, which can be used to uniquely identify and track the product or service through time. Other descriptors or specifications can include product code [the PLU (Price Look-Up code), UPC (Universal Product Code) or SKU (Stock Keeping Unit)]; manufacturer; size or weight; or unit of measure;
- Country of origin: If the product is imported, the country from which the product originates is identified (Canada collects this information from wholesalers only);
- Retail and/or wholesale activities: A list of activities (incidental to the sale of goods) performed by wholesalers or retailers for the services chosen. Price margins may fluctuate due to (perceived or actual) value-added by the performance of all or any of these activities.

In the U.S., in order to minimise response burden and improve the representativeness of the assortment of products that are sold, separate average purchase and selling prices per unit are collected for an entire comparable product line rather than for a single product. Comparable product lines are groupings of products sold on the same per unit basis (*e.g.* per unit, per package, per pound, etc.) and marketed under a similar set of conditions. However, in some cases this aggregate information is not available and single product margin prices are collected as a fall back procedure.

#### 5.1.6.4. Initialisation

Detailed product (characteristics) and price data are required to produce high quality retail and wholesale services price indices; however it can be difficult and expensive to collect this information. This is particularly true for the distributive trade indices because they are margin indices which are often more volatile as both the sales and purchase prices may change. Additionally, since margin prices are significantly smaller than sales prices, incremental changes often cause large percentage changes (for example, an increase in a margin price from 2 cents to 4 cents is a 100% increase.) Different approaches are used to initialise respondents in the distributive trades sector:

- In the U.S., field economists identify products and collect initial margin prices, often using a personal visit;
- In Canada, personal respondent visits are expensive, limiting their use as an ongoing method for initialisation of new sample units. Furthermore, the mail out questionnaire approach did not provide the flexibility required to ensure the "right" data are collected. Consequently, specialised "initialisation unit" has been established to research and initialise new respondents on prices surveys, particularly in the wholesaling and retailing sectors. The initialisation process needs to be specific and tailored to the new units being initialised. Experience indicates that more phone follow-up interaction is needed in order for the respondent to understand the product and product specification selection method;
- In Australia, where the retail trade margins price index is under development, each selected business is initialised into the retail trade margins survey via a personal interview.

A notable issue for the initialisation process in the distributive trades sector is the variation in the types and quantities of products that potentially could be reported by retailers and wholesalers. Retailers and wholesalers carry an extremely wide and diverse assortment of products that can range from a relatively small number of unique items to

thousands and sometimes tens of thousands of specific products. Consequently, the selection of representative products is vital. Collection of detailed product specifications is an ongoing challenge for collection in this sector as well as maintaining the integrity of the product(s) or product mix that is being reported.

When establishing a new series or identifying a product substitute, taking discount or near-zero prices should be avoided. Discount prices and prices approaching zero can cause large fluctuations in the price relative in the month that the price is first encountered and again in the month that the price reverts to normal. In Canada, margin prices close to zero are excluded from index estimation (under normal circumstances) until the product returns to its non-discount price. In the U.S., a "representative margin price" that reflects the typical margin price for the product that is discounted during the initialisation month is collected along with the average margin sale price. The "representative margin price" is a reference point that may be used as the base price for the transaction.

In the U.S., seasonal items are priced during the months they are in season. In Canada, respondents are asked to select products that are sold year round.

Closely related to the issue of seasonality, particularly for retailers, is the inclusion of high fashion items in the products being reported. High fashion items account for a significant portion of retail sales and these items are often only available for a few months before they are replaced. It is important that the respondent is able to provide a comparable product substitution with a comparable margin price serving the same market niche (for example children's clothing) in order to maintain constant quality pricing and minimise fluctuations in the margin prices.

Retailers may bundle goods and services to encourage customers to buy or commit to long-term service contracts. Often the vendor's purchase price of the product will exceed the selling price, creating a negative margin. This practice is frequently encountered for mobile phone retailers. If the margin becomes and remains consistently negative, the price has no economic meaning and the output value is zero. In Canada, items with negative margins are excluded from index calculation.

#### 5.1.7. Main pricing methods

The commonly accepted pricing methodology for the distributive trades sector is the margin price per unit which represents the price of the retailing or wholesaling service. As previously noted, the retail and wholesale services PPI's strive to measure the change in the price of the distributive trade service and not the price of the product.

### $MP^{t}$ unit = $SP^{t}$ selling price/unit - $PP^{t}$ purchase price/unit

Products that are representative of the respondent's business activity, based on the share of total margin revenue generated are identified. Detailed specifications are recorded and prices collected and verified. The detailed specifications facilitate the identification and pricing of a constant quality product over time.

Generally, the average purchase and average selling prices that are collected reflect real transactions and are reported on a per unit basis. The reported purchase and selling prices represent an average monthly price. The margin price is then calculated from this information. Reported purchase prices should be exclusive of freight, but inclusive of discounts. Respondents are asked to continue reporting for the selected products over time. Margin pricing introduces a new dimension to index construction for the distributive trades sector as margin prices can behave very differently from gross sales prices (both for retail and wholesale) and must be treated accordingly.

While discounted retail prices typically reduce margins, they are legitimate prices that yield a positive return and as such should be included in the index in their correct proportion. However, prices that are set to effectively clear out unsold merchandise that no longer has any real value to the retailer or wholesaler (referred to as clearance or close-out prices) should be excluded. When clearance or close-out prices are encountered, the margin price often declines steeply and may become negative. The item drops out of the index and we must determine whether the price is a discounted or close-out price. The preferred handling would be to not accept negative prices in the first place, thus avoiding product substitution, volatility, and the downward price bias altogether.

#### 5.1.8. Quality issues

There are two important issues to consider in compiling indices of constant quality service transactions. The first is "pricing to constant quality" where the focus is on pricing the wholesale or retail service to constant quality (which is determined by characteristics such as opening hours, numbers of checkouts, floor space, general ambience, temperament of staff, ease of parking, range of goods on offer, proximity to other stores etc.). The U.S. currently uses a hedonic model for the quality adjustment of services provided by one retail trade industry. The model provides estimates of quality change based on changes in numerous collected service characteristics; including total number of checkouts, hours of operation, and number of products offered for sale. While this model has been successfully implemented, its effect on the index is minimal and the associated resource costs are high. Since costs are high for minimal benefit, this method of adjusting for service quality change, while theoretically sound, is not being recommended as a best practice methodology for the distributive trades industries.

The second issue concerns the data source used to achieve trade margin pricing. Representative items (commodity/commodity groups) should be selected to enable margin prices to be calculated. Every effort should be made to ensure that changes in the quality of items sold do not influence the distributive trade indices. When an item that was being used to calculate a margin price is no longer available or representative, a product replacement, along with detailed product specifications, must be provided. An evaluation is carried out to determine if the new product is a comparable or noncomparable substitution. If the new product is retailed or wholesaled under similar conditions as the old product, then it is considered a comparable substitution and the price change is accepted. However, if the new product serves a different niche market and/or no longer has the same basic functionality, the product change is a non-comparable substitution. Where possible, the quality difference between the two non-comparable products is used for quality adjusting the margin price difference. Identification of comparable and non-comparable product replacements is a major determinant of quality change. Care must be taken to avoid introducing a non-comparable product substitute for a product after it has been given a "close-out" or "end of season" price as this can cause a downward bias in the index. Experience dictates that in order to minimise the risk of introducing a downward bias, it is preferable to find a comparable substitute whenever possible. A change in the level of service provided by either wholesalers or retailers triggers an initial attempt at valuation which can include a discussion with the respondent to see if there is some reasonable and objective value that can be assigned to the change. If this is not possible, then the alternative is to flag the change as a non-comparable

substitution and to impute a price change for it. Some control over the quality of their product mix can be exercised by retailers and wholesalers as they are responsible for selecting the products they sell.

## 5.1.9. Weighting and aggregation

The experience of each statistical agency influences their weighting and aggregation methodologies. In Canada, the two common weighting sources for the distributive trades' services prices indices are:

- Total revenue of the sampled unit; and
- Total industry revenue (In the U.S. this is specified as the margin revenue from distributive trade activities and the sales revenue from all other activities).

Compilation of SPPIs for the distributive trades' services is a multi-stage process that includes the calculation of weights, price relatives and elementary indices; index aggregation; and imputation for missing data:

- Weights are calculated for each retail or wholesale sampling unit, usually on the basis of revenue or a combination of revenue and sampling probability;
- Price relatives are calculated for each specified service transaction. Price relatives beneath the sampling unit level are combined by geometric average. Sampling unit weights are then used to aggregate indices at a higher level;
- Margin revenues for trade activities and sales revenues for non-trade activities should be used to weight distributive trade indices;
- In Canada, a parental imputation method (use the prices movement of those units who do respond to represent the movement of those units that do not) is employed for the imputation of missing prices (see figure 5.1.). Under this method, prices are imputed using a cell mean (or parental) imputation based on the next highest level of aggregation. Thus, missing product relatives are imputed using the firm relative; missing firm relatives are imputed using a stratum index; a missing stratum index is imputed using a 5-digit NAICS index, and so on.

Other types of automated micro data imputation typically found in turnover statistics programs (donor or tax replacement) are not appropriate as they have the potential to introduce some bias to the distributive trade price indices, depending on the rate and nature of imputation. Most of the SPPI samples are relatively new and consistent reporting patterns will only emerge as collection procedures are standardised.

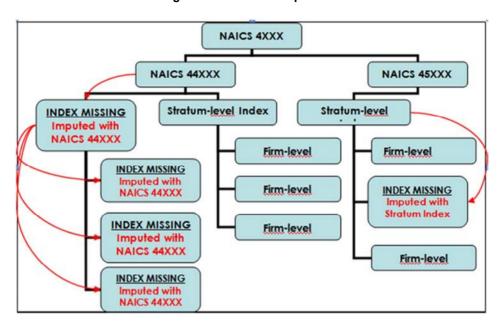


Figure 5.1. Index Imputation

Ideally, the compiler should determine the optimal number of price observations to be collected from each respondent that will satisfy data quality standards while at the same time minimise respondent burden. Typically, if the respondent has a wide and heterogeneous product line (for example a large hardware store), then increasing the number of products for which prices are collected will improve the representative price movement. However, if the product line is narrow and homogenous (for example a timber wholesaler) then fewer products are required to measure the respondent's price change.

#### 5.1.10. Specific aspects

The retail and wholesale SPPI's are important information sources for Statistics Canada's research agenda and more specifically the availability of commodity price data for the distributive trades' sector will greatly benefit the Canadian statistics program by:

- Providing a comprehensive set of indicators for distributive trades that will lead to better estimates of real output and productivity for this sector;
- Providing information on the behaviour of margin prices for wholesale and retail;
- Helping to answer questions related to the distributive trades sector in Canada;
- Providing new information source on the impact of exchange rate pass-through.

#### 5.1.11. Overview of national methods

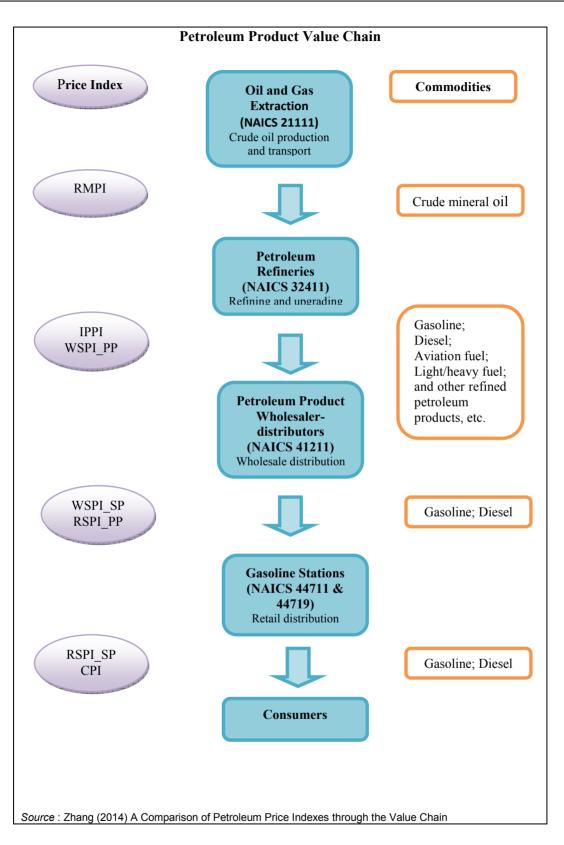
Few countries currently compile SPPIs for the wholesale and retail services. The methods described mainly reflect the Canadian and American experience. More detailed information can be found in the references cited in the bibliography section.

# **ANNEX CHAPTER 5 - THE PETROLEUM PRODUCT VALUE CHAIN**

Wholesale and retail services price indices can also be used to evaluate different aspects of a product value chain. For example, if we look at petroleum products which are an important commodity in terms of their economic importance to the Canadian economy, we can also see the value added by wholesale distribution and retailing to the final consumer.

The following figure illustrates the various stages of the petroleum value chain from oil and gas extraction to petroleum refining to wholesale distribution and retailing to final consumption. We can also see where the various price indices fit in this chain:

- Oil and gas extraction companies extract crude oil, which is then transported domestically via pipelines to refineries;
- Petroleum refineries transform crude oil into refined petroleum products such as gasoline, diesel, aviation fuel, etc. Refineries are generally built to serve regional markets;
- Refined fuels are stored and then distributed to wholesale terminals. The wholesale sector for distribution of petroleum products "comprises establishments primarily engaged in wholesaling crude oil, liquefied petroleum gases, heating oil and other refined petroleum products" so it also includes crude oil and natural gas;
- Wholesalers then sell auto fuel such as gasoline and diesel to retailers. The retail gasoline market is highly saturated with most service stations operating independently although they may be "branded" under a major refiner. Finally retail gasoline stations sell auto fuel to consumers.



Where the wholesale and retail services indices fit in the chain:

- Raw Materials Price Index (RMPI) measures price changes for commodities purchased by manufacturers in Canada, including all charges incurred such as transportation cost, net taxes paid, custom duties and subsidies. The commodity of interest is crude mineral oil;
- Industrial Product Price Index (IPPI) measures price changes for commodities sold by manufacturers in Canada at factory gate, excluding all indirect taxes and freight. Industry PPI's are also released. PPI's of interest are for motor gasoline, diesel and the Petroleum Refineries industry;
- Wholesale Services Price Index Purchase Price and Selling Price (WSPI\_PP & WSPI\_SP) measures changes in the purchase price and selling price of Petroleum Product Wholesale distributors, excluding taxes and freight;
- Retail Services Price Index Purchase Price and Selling Price (RSPI\_PP & RSPI\_SP) measures changes in the purchase price and selling price of Gasoline stations, excluding taxes and freight;
- Consumer Price Index (CPI) measures changes in gasoline prices faced by consumers, including taxes.

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## Notes

1. A note describing the petroleum value chain is presented in the annex of this chapter as an example of how the wholesale and retail services indices fit into the product value chain.



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