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SPPI for Retail Services in Canada

25th Voorburg Group Meeting
Vienna, Austria

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September 20-24, 2010

Background

- Gap in price indexes for the business service sector

- System of National Accounts
  - Estimates of real and nominal GDP

- Distributive Trades Division
  - Surveys of revenue and expenses (turnover)

- Producer Prices Division
  - Develop/produce Services Producer Price Indexes
  - Retail, Wholesale, Commercial Rents, Accounting

Definition of Service Collected

- Retail activity classified by industry

- North American Industry Classification System (NAICS) 2002

- NAICS Classification 44-45 → Retail Trade

  > "Establishments primarily engaged in retailing merchandise, generally without transformation; and rendering services incidental to the sale of merchandise."

- The retail sample (2200) was selected using Business Register frame

Definition of Service Collected (2)

- Publishing target → 5-digit level for NAICS 44-45

- 2 types of retailers:
  - Store
  - Non-Store (currently not in scope for Retail SPPI)

Pricing Unit of Measure

- Pricing methodology is the margin price per unit

$$MP^t_{unit} = P^t_{retail\ price/unit} - P^t_{vendor\ price/unit}$$

- Price relative constructed on margin price **t/t-1**

- Represents the price of the retailing service

- Prices reflect real transactions measured monthly, but collected on a quarterly basis

Pricing Unit of Measure (2)

- Collect prices for up to 12 products (2 products X 6 groups) from each retailer

- Products should be:
  - Representative of retail activity
  - Based on sales revenue
  - Sold year round

- Retailers provide product specifications for each product reported to:
  - Maintain quality
  - Facilitate identification and tracking over time

Pricing Unit of Measure (3)

- Main variables used to price the retail service include:
  - Product description, manufacturer or label
  - Product code
  - Size/weight
  - Unit of measure
  - Retailing activities
  - Average vendor price (cost price)
  - Average retail price (selling price)
  - Main reason for vendor price change
  - Main reason for retail price change

Retail Market Conditions & Constraints

- In Canada, retailing is a multi billion-dollar industry

- Operating revenues totalled $468.5B in 2008

- In 2008, the total number of retail establishments in Canada reached ≈ 162,111

- 2.0 million Canadians or 11.9% of total working population employed in retail sector in 2009

Retail Market Conditions & Constraints (2)

- In 2009, Gross Domestic Product (GDP) of the retail sector totalled $74.6B

- Including wholesale trade, Distributive Trade sector accounted for ≈ 11.8% of GDP

Issues Related to Retail Margin Pricing

- Margin pricing adds new dimension to index construction

- Margin prices may behave very differently from gross retail sales

- Margin prices are expected to be more volatile

- Issues in margin pricing retail
  - Including seasonal goods at the appropriate time

Issues Related to Retail Margin Pricing(2)

- When pricing an item avoid taking sale prices or near-zero prices

- Clearance prices can also distort the price index

- Minimize fluctuations → comparable product substitutions

SNA Programs – What They Currently Do

- Retail sales are an important data source in numerous programs for the System of National Accounts (SNA)

- Annual Industry GDP

  - The IO tables are compiled using a wide variety of data sources (annual retail turnover data)

  - The main output of the industry is the retail margin

  - These margins form the basis of the retail margin table

SNA Programs – What They Currently Do (2)

- Due to lack of deflators for the retail margin, the price movement is measured using an implicit price index

- ## Monthly Industry GDP

    - 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

Issues With Current Approach

- Several issues with current methodology for estimating annual industry GDP for retail:

  - Implicit index and a margin rate methodology are used to deflate the retail margin → may not be as accurate as a direct index

  - Retail margin ratio used is based on current dollar estimates → likely won't be the same as constant dollar estimates

New Approach in SNA - Impact of RSPI

- New data source could impact SNA methodology for estimating GDP in all GDP programs

- Could potentially impact GDP estimates

- Will provide SNA with actual information on margin rates and margin prices

  - The IO tables can use the retail price data to deflate margins

New Approach in SNA - Impact of RSPI

- May also be used to compare margin rates and improve accuracy

- The SNA will be able to deflate directly using this margin data

Quality Assurance Framework

- Measuring the change in the price of the service NOT the price of the product

- Voorburg Quality Assessment Framework
  - Method for Evaluating Design of PPI's
  - Retail is Type "A" Design

Quality Adjustment Methodologies

- ## Quality Change in *SERVICE*
  - Identified in survey and follow-up with respondent
- ## Quality Change in *PRODUCT*
  - Comparable or non-comparable substitution
- ## Change in *PRICE*
  - Reason(s) identified and assessed

Comparability with Turnover Surveys

- Level of comparability between Retail Trade Price Report and turnover surveys is high
  - Use the same industry classification system (NAICS)
  - Sub-sample of the Annual Retail Trade Survey frame
  - Frames are taken from Statistic Canada's Business Register (BR)
  - Overlap with Quarterly Retail Commodity Survey
- Ongoing coherence analysis and data confrontation

Next Steps …

- Release of Retail Services Price Index will greatly benefit our statistics program

  - Feed the STC research agenda

  - Lead to better estimates of real output and productivity

  - Information source on behaviour of margin prices for retail

  - Help answer questions about retail in Canada

Discussion