Quality of Price Indices session: abstracts

1. A Framework for the Accuracy Dimension of Data Quality of Price Statistics

Geoff Neideck, Australian Bureau of Statistics

Given the importance of price indexes for monetary policy and other economic decision-making, and the complexity of price index construction and compilation, ensuring the quality of price index statistics is a major focus of the efforts of prices statisticians within national statistical offices. One of the key aspects of data quality is data accuracy. Within the context of the accuracy dimension of the ABS Data Quality Framework and drawing on the IMF Data Quality Assessment Framework (DQAF) for CPIs and PPIs, this paper sets out a framework for quality assuring price statistics. It covers data capture (collected, observed and administratively derived prices), editing (with emphasis on macro-editing), application of index formulae, application of pricing and index rules, spreadsheet protocols, data validation and checking, and systems quality maintenance. With the ABS implementation of 'quality gates' to its statistical collections, the paper examines how these can be best applied for price index compilation.

Discussion of the application of the framework highlights the key issues and risks that need to be addressed to ensure acceptable data quality for price indexes. An emphasis is given to managing the risks associated with changes that are made both with index updating (price sample changes, product reviews, index rebasing, etc.) and with changes to processes and introduction of new developments. The paper draws on some recent learnings from ABS's price index compilation experience.

2. The Statistics New Zealand and SSB Consumers Price Indexes: a Comparison

Daniel Griffiths, Statistics New Zealand and Randi Johannessen, Statistics Norway

As a cardinal output produced by National Statistics Offices, the Consumers Price Index (CPI), was identified by the Norwegian Statistics Bureau and Statistics New Zealand as a significant output for comparison. Such a comparison would allow greater collaboration and learning between the two organisations and present recommendations that are applicable to the wider statistical community.

This paper outlines the respective purpose, conceptual approach and practical applications of best practice with regard to price collection, validation, calculation and dissemination practices of the CPIs of Statistics NZ and Statistics Norway. Further, challenges and opportunities facing both organisations are analysed and followed by

recommendations concerning the learning opportunities and areas for future improvements to practices.

3. Accounting for the Difference between the CPI and the PCE Deflator

Tarek Harchaoui, Justin Hume and Jennifer Withington, Statistics Canada

Statistics Canada produces two measures of the change in prices that consumer's pay on the goods that they consume—CPI by Prices Division and Personal Consumption Expenditures (PCE) by the System of National Accounts (SNA). While these measures tend to agree in broad historical trends in prices, they sometimes give different pictures of inflation over short horizons.

The purpose of this paper is twofold:

1. To identify the conceptual and empirical differences that underlies the two price indexes.

   There are several reasons why these two indexes differ. First, the two indexes use different formulas. For the period in question, the CPI is a Laspeyres index, while the SNA product is a Fisher Ideal index. Second, the two indexes have different underlying concepts. Prices Division's product measures the prices paid by urban consumers, while the SNA product measures the prices of final consumption goods, wherever they are purchased. Finally, even when there is significant agreement across indexes in the broad outlines of coverage, differences in how the detailed components are implemented lead to differences in how prices are measured and differences in the weights attached
2. To quantify the contribution of each of these factors to the difference between the CPI and PCE and to explain if there is one smoking gun that explains the discrepancy;
3. To document, provide insights and explain the trends of comparable components between the CPI and the PCE.