ABS Price Index Developments

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Introduction

• This session presents some recent Price Index systems and methods developments at the ABS and discusses specific aspects and challenges of index development.

• The ABS has recently started to acquire supermarket scanner data and is investigating the possibility of including this in its indexes.

• The ABS is undertaking a significant project to update its price index processing system.

• The ABS is attempting to secure funding to increase the frequency of its Household Expenditure Survey (HES) from six years to four.
Supermarket Scanner Data

- The ABS has been receiving scanner data from one of the two major Australian supermarkets for 15 months.
- The ABS has been constructing indexes from these data for a number of food and consumer non-durable expenditure classes in the consumer price index (CPI).
- The method used for compiling the indexes has been a version of the RGEKS (The aim is to compile an index based on a 13 month window but this has only been possible with the most recent data).
- The resulting indexes compare favourably with the published CPI.
Prices Indexes System Development

• The ABS has, in recent years, been looking to develop a new compilation system for all of its price index outputs

• The new system will take a phased approach that will develop individual parts, or modules, of the index compilation in isolation

• Phase one due to be undertaken during 2014-17 will develop the aggregate module

• The aggregate module will be based on the two-stage aggregation method
Household Expenditure Survey

- The ABS HES is currently conducted every six years and is currently the primary source of expenditure information for weighting the ABS CPI.
- The ABS is aware that this falls outside the recommended time of five years between index re-weights.
- Subject to securing the necessary funding, the ABS intends to increase the frequency of the HES from six years to four years.
Geometric Aggregation

- The ABS has examined a recent study on United States CPI data which considered the effects of applying a geometric method of aggregation above the level of “equal-weighted” elementary aggregate prices.
- It has been stated that geometric aggregation at the higher levels could be used as an alternative, or additional method, to more frequent updating of the index weights in order to alleviate upper level substitution bias.
Geometric Aggregation

- The study based on the US CPI data suggested that the index levels and percentage changes would be lower if the aggregation was based on a geometric rather than an arithmetic formula.
- The ABS has replicated this analysis with its own CPI data and the results were very similar.
- The ABS constructed geometric Young and geometric Lowe indexes and both were lower than the current published ABS CPI and closer to the superlative Fisher index which was presented as the target index.
Summary

• The ABS is working on a number of initiatives to maintain and improve the quality of its CPI
• The ABS is committed to carrying out a more frequent HES which will reduce the length of time between index weights updates in the CPI
• The ABS is also examining alternative methods to mitigate the effects of infrequent re-weighting of the CPI.
• The ABS has examined geometric aggregation as an alternative to current methods but remains cautious and would prefer to see a greater body of empirical evidence before considering its introduction