

4.2b Improving quality in import price indices

Tim Jones
SIAP consultant/lecturer

Objectives

After this session, participants will be aware of:

- Sources of import price data
- Some issues in their quality:
 - Missing observations
 - Error detection
 - Measuring variability

Assessing quality in general

- Probably, the biggest problem facing national accountants is the accuracy of available source data
- Some survey datasets have very large coefficients of variation (as well as other errors)
 - measuring change is even more uncertain
- The effects are difficult to assess
- Administrative datasets do not have sampling errors, but there are still problems...
 - ... take import price indices

Sources of import prices

- Which country is doing a survey of import prices, similar to a producer price collection?
- This is the theoretical ideal.
- But unit value indices seem to be accepted, despite their limitations:
 - Changing mix of heterogeneous items
- A mix of the two may be best
- Also possible to use partner country indices

Missing observations

- Missing data can also be a source of bias
- What if an item is not imported
 - in the month?
 - in the base period?
- To overcome this problem
 - a price should be imputed for a missing period to bridge the gap
 - period-to-period relatives should be calculated (as in modified Laspeyres)

Detecting errors

- Data entry or other recording errors – especially the quantity in kgs – can distort the results
- Changes above or below certain values should be flagged or treated as missing
 - the thresholds should be symmetrical on a multiplicative scale, for example:
 - up by 25%, down by 20%
 - double or half
 - a factor of ten either way

Monitoring variability

- Generally prices do not jump about too much, although commodities like petroleum may change substantially in a few weeks
- Calculating approximate standard errors (at a more aggregated level) can identify areas of concern...

Discussion