

IMPROVEMENT OF OMAN CONSUMER PRICE INDEX

10-13 NOVEMBER 2012



MUSCAT, OMAN

Source of weights

Presentation by Dr. Cem BAŞ, TURKSTAT

Compilation of Weights

Source of Expenditure Weights

- Household budget survey (HBS) complemented by supplementary data from other sources
 - HBS should be conducted on a regular basis (at least every five years) to permit changes in consumption patterns to be taken into account
 - National accounts
-

Compilation of Weights

Advantages of the Household Budget Survey

- **The HBS can be tailored to the particular needs of the CPI.**
 - **The HBS can provide information on regional breakdowns of expenditures.**
 - **The HBS provides data about household characteristics such as income and number of members.**
 - **The HBS can provide information on the types of outlet where purchases are made and the brands purchased.**
 - **The statistical quality indicators (e.g. standard error and coefficient of variation) for the weights can be calculated.**
-

Compilation of Weights

An annual HBS is optimal for a CPI.

- **It permits the annual updating of the weights.**
Reducing the substitution bias associated with out-of-date weights.
 - **It avoids one-off set-up costs.**
 - **Also facilitates the use of multi-year weights to.**
Reduce sampling error.
Smooth out atypical expenditure patterns e.g. from natural disasters or political events (if considered appropriate to do so).
-

Compilation of Weights

Disadvantages of the Household Budget Survey

- **HBS's are resource intensive and costly.**
- **Measurement issues.**
 - Prestige effect**
 - Telescoping effect**
 - Recall effect (under-reporting)**

These problems have been overcome in some smaller countries by using a methodology based on a sample survey of people's receipts.

Compilation of Weights

NATIONAL ACCOUNTS

The use of National Accounts weights ensures consistency and comparability between the CPI and national accounts definitions and classification systems for household consumption.

This is an advantage when compiling a CPI.

- ✓ As a macro-economic indicator.**
 - ✓ For use as a deflator.**
-

Compilation of Weights

National Accounts have two inherent advantages:

- **The Household Consumption element of National Accounts is derived mainly from the HBS but national accountants will often use other sources of information before finalising the results. The fact that National Accounts go through this additional quality assurance process and re-estimation should increase the reliability of the weights.**
 - **Even if the HBS is updated infrequently, CPI weights can still be updated at regular intervals from national accounts data for higher level aggregates at the division or group level.**
-

Compilation of Weights

There are three inherent disadvantages with National Accounts data:

- **It is generally only available at the national level so deconstruction of the national accounts data may be necessary using other available sources of information.**
 - **National accountants apply an element of discretion and judgment when making operational decisions relating to the construction of National Accounts.**
 - **It is generally not as timely as HBS data.**
-

Compilation of Weights

- ❖ **Most CPIs adopt a Laspeyres-type formulation.**
 - ✓ **Only base-period weights generally available.**
 - ❖ **Due to the frequency and time taken in collecting the necessary expenditure data, weights are sometimes estimated using price-updating.**
 - ❖ **Where the basket is not updated annually, the compiler should guard against choosing a basket reference period where economic conditions are temporarily atypical.**
-

Compilation of Weights

- ❖ **If different sources of weights are used, then their reference periods do not necessarily have to be of the same vintage although this is desirable.**
 - **E.g. national accounts for higher level and more recent HBS data at a more detailed level.**
 - ❖ **Chain linking.**
 - **When weights are updated, the index using the updated weights needs to be calculated for an overlapping period with the index using the previous weights.**
-

Compilation of Weights

WEIGHT REFERENCE PERIODS AND PRICE UPDATING

- ❖ **Because of the time lag associated with the collection and compilation of expenditure data, the period covered by the latest available data will not coincide with the reference period for the CPI weights.**
 - ❖ **A common practice is to re-value the expenditure data to the appropriate reference period by index linking, using appropriate components of the CPI.**
 - **Price updating is usually applied at the lowest level for which weights that agree with the fixed basket concept are available in the CPI (similar process for mutli-year HBS data).**
-

Compilation of Weights

WEIGHT REFERENCE PERIODS AND PRICE UPDATING

- ❖ **Because of the time lag associated with the collection and compilation of expenditure data, the period covered by the latest available data will not coincide with the reference period for the CPI weights.**
 - ❖ **A common practice is to re-value the expenditure data to the appropriate reference period by index linking, using appropriate components of the CPI.**
 - **Price updating is usually applied at the lowest level for which weights that agree with the fixed basket concept are available in the CPI (similar process for mutli-year HBS data).**
-

Weights for Main Expenditure Groups for Turkey(2012)

Food and non-alcoholic beverages	26,22
Alcoholic beverages and tobacco	5,21
Clothing and footwear	6,87
Housing, water, electricity, gas and other fuels	16,44
Furnishings, household equipment, routine maintenance of the house	7,45
Health	2,29
Transport	16,73
Communications	4,60
Recreation and culture	2,98
Education	2,18
Hotels, cafes and restaurants	5,63
Miscellaneous goods and services	3,40

Household Budget Survey in Turkey

Objectives

- To get data on the determination of the commodities and weights for the consumer price indices,
 - To monitor the changes of households' consumption patterns,
 - To collect data on income distribution,
 - Determination of number and level of poor people
 - To obtain required data for analysis on households' living standards, feeding problems, calculations on minimum wage and other social and economic analysis.
-

Household Budget Survey in Turkey

- The estimation level for 2003 HBS and following surveys is
 - whole Turkey at urban and rural breakdown*
 - NUTS level 1 (12 regions at urban and rural breakdown)*
 - NUTS level 2 (26 regions)*
 - Beginning from 2004; it would be possible to have estimates on Turkey at urban/rural discrimination by using each year's survey itself and to have estimates on regional discrimination by using the combination of each year's data and last two years' data.
-

Household Budget Survey in Turkey

- The 2003 Household Budget Survey was carried out to 2160 households monthly, 25920 households totally.
 - The 2004 and 2005 Household Budget Surveys were carried out to 720 households monthly.
 - The 2006 Household Budget Survey is being carried out to 720 households monthly beginning from since January 1st, 2006.
-

Household Budget Survey in Turkey

- 2004 Household Budget Survey was carried out by following different sample households alternately each month.
 - For instance, information about socio-economic situation, consumption expenditures and members' income of the 720 sample households were compiled in January.
 - In February, the survey was carried out on different 720 households representing the households of January.
 - This rotation continued until the end of December.
-

Household Budget Survey in Turkey

- Household information was compiled by interview, diary keeping and observation methods.
 - Each interviewer recorded the data on consumption expenditures and income of 6 sample households monthly on average as a result of 8 times of visit including 1 visit prior to the survey month, twice during the first and second weeks, once during the third and fourth weeks and once following the end of the survey month.
-

Household Budget Survey in Turkey

- Prior to the survey month, the information about the socio-economic status of the households is obtained in the first visit to the sample households and how to fill the book of record is explained.
 - During the visits in the survey month, consumption expenditures of the sample household are obtained through the books of record and interviewing method. Information about employment status, economic activities, occupations, performance in jobs and income of the household members in the survey month and during the last year was compiled in the last interview at the end of the survey month.
-

Household Budget Survey in Turkey

- Expenditures should be made for the household.
 - Expenditures should be made for consumption purposes.
 - Consumption expenditures are covered under COICOP groups
 - Consumption expenditures of the household were compiled in accordance with the measurement criteria (ownership, usage, payment) within a survey period
 - Consumption expenditures within the survey period are covered. In the survey, the following information is compiled:
 - Purchased consumer goods and services,
 - Type of purchase (in cash or installment purchase, own production, in-kind received etc.),
 - Amount of purchased goods and services(how much/many),
 - Value of these items
 - Place of purchase.
-

Weights in Turkish CPI

Weights for calculating CPI in a given year are mainly based on the data from the HBS (90%).

These data are also supplemented and verified using other statistical sources. Such as; tourist expenditure survey (9%), special survey for institutional population (1%) and non-statistical sources (administrative data).

Weights in Turkish CPI

Weights are changed every year. The present weights are based on the sum of HBS 2008-2009-2010 results.

The sum of three years are not simple summation of the row data. Monthly consumptions of 2008 and 2009 are deflated to the same month of 2010 using the general index change by regions. So the final HBS results reflect the 2010 household consumption.

Weights in Turkish CPI

At the first step of weighting structure, commodities produced by households for own consumption, imputed rents from dwellings resided by owners and income in-kind excluded.

For the insurance and games of chance net consumption application is used.

Weights in Turkish CPI

After this step, the basket of CPI is obtained and then the weighting structure of both for Turkey and 26 regions are constituted.

The consumption of tourists and the consumption expenditures of institutional population are then added to 12 main groups.

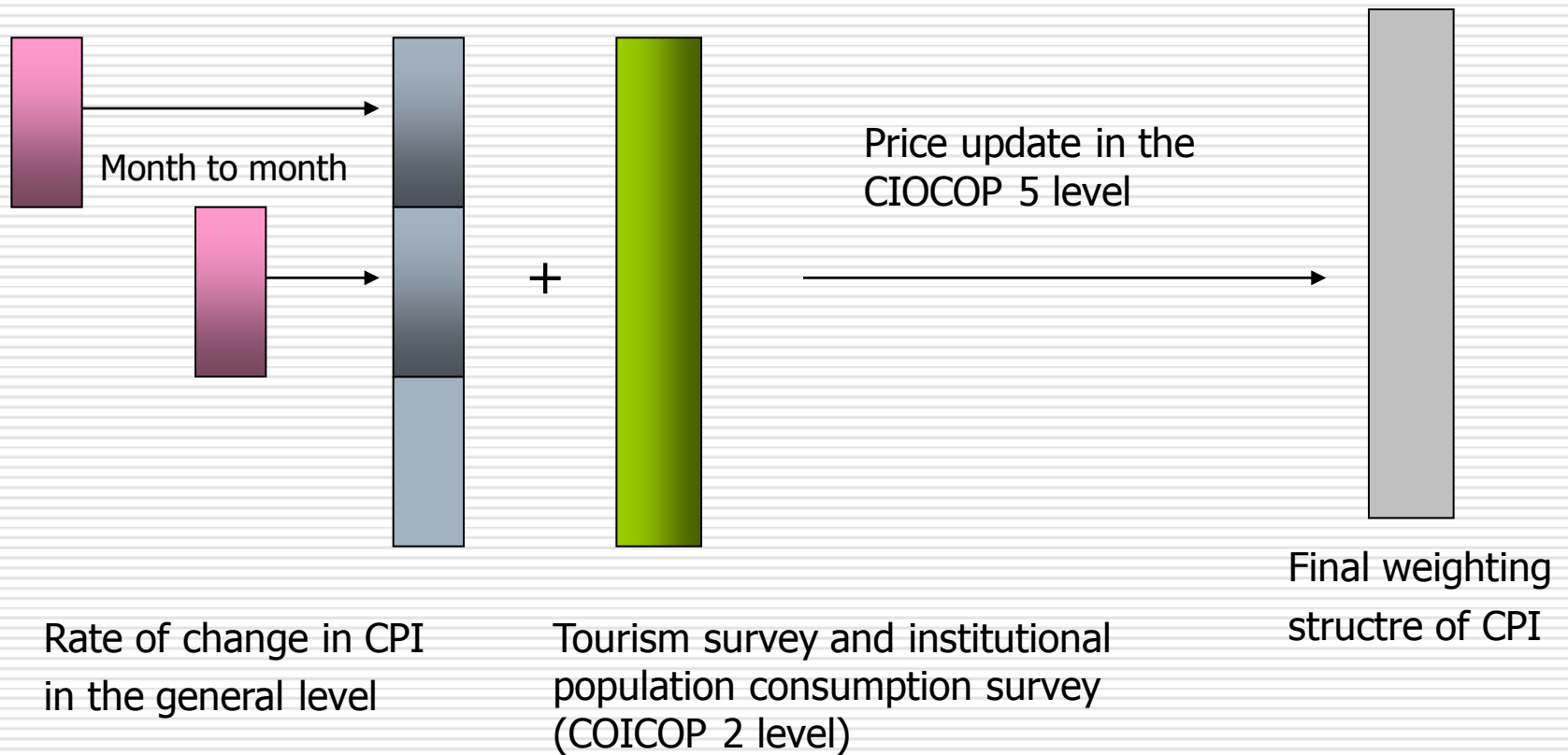
Weights in Turkish CPI

At the final step, these weighting structures are price-updated to December t-1. For the weights to be used in 2012, 2010 weights coming from HBS data are price updated by the ratio of December 2011 over average of 2010 in 5 digit COICOP level.

Weights in Turkish CPI

2008 2009 2010

2011 December



Thank you...
