



Explanatory note on the 2006 Consumer Price Index weights

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1. Introduction

The weights of the CPI represent the proportions of consumption expenditure by households in a specific period. Each indicator product in the CPI has a weight attached to it which reflects its relative importance in the overall index. The weighted sum of changes in the price of the specific products or services in the CPI provides the rates of inflation. Whereas the prices are updated on a monthly, quarterly or annual basis, the weights are normally updated only every five years. This is in line with international practice. At the same time the CPI and its components will be rebased to 100.

The weights contained in this document will become effective with the publication of the January 2009 CPI release. The current CPI weights were introduced in 2002, and are based on the 2000 Income and Expenditure Survey. The new weights released today are mainly based on the Income and Expenditure Survey of 2005/06 which was released by Statistics South Africa (Stats SA) in March 2008. In that release, Stats SA indicated that certain categories in the IES were under reported. As a result, Stats SA has consulted and used a range of additional data sources in finalising these weights.

As part of the plan of the reweighting and rebasing exercise, Stats SA has taken the opportunity to initiate a range of improvements to the CPI. A full Methods and Sources manual for the CPI, which will be published later in 2008, will document the methodologies to be used in collecting CPI data and compiling the indices from 2009.

The changes in weights discussed in this document refer to the total country CPI, unless otherwise stated. This is to facilitate comparison with the Income and Expenditure Survey results.

2. New classification

From 2009, the CPI will be published according to the Classification of Individual Consumption by Purpose (commonly known by its acronym COICOP). COICOP is the international standard for classification of household expenditure and consequently for the CPI. Table one shows the high level relationship between the current CPI classification (ITC) and COICOP.

Table 1. Comparing high level ITC and COICOP classifications

ITC code	ITC description	COICOP code	COICOP Description
01	Food	01	Food and non-alcoholic Beverages
02	Non-alcoholic beverages		
03	Alcoholic beverages	02	Alcoholic beverages and tobacco
04	Cigarettes, cigars and tobacco		
05	Clothing and footwear	03	Clothing and footwear
06	Housing	04	Housing and utilities
07	Fuel and power		
08	Furniture and equipment	05	Household contents, equipment, and maintenance
09	Household operations		
10	Medical care and health expenses	06	Health
11	Transport	07	Transport
12	Communication	08	Communication
13	Recreation and entertainment	09	Recreation and culture
14	Reading matter		
15	Education	10	Education
		11	Restaurants and hotels
16	Personal care	12	Miscellaneous goods and Services
17	Other		

COICOP classifies expenditures according to their purpose and, so, expenditures for similar purposes are classified together. Thus, for example, vehicle insurance is moved from Transport under the ITC system, and medical aid contributions are moved from Medical care and health, to Insurance (part of Miscellaneous goods and services) under COICOP. Additionally, there is a new category for restaurants and hotels which were not previously included in the CPI.

The comparisons discussed in this document are made on the basis of the standard COICOP classification. Stats SA has published a COICOP version of the CPI since 2000 (table 6.1 to 6.4 in the current release). These tables contain some deviations from the standard COICOP classification¹.

¹ Variations include:

Property, car and health insurance are under housing, transport and health respectively, but are under insurance (miscellaneous) in the new classification

Some items under 'Other food' are under sugar, sweets and desserts in the new classification

3. New weights vs current weights

Table 2 shows the weights that will take effect with the publication of the January 2009 CPI release.

Table 2. New weights for the CPI

COICOP category	Total country	Headline CPI*	CPIX*
Food and non-alcoholic beverages	18,28	14,98	17,86
Alcoholic beverages and tobacco	5,56	5,62	6,36
Clothing and footwear	4,42	3,89	4,68
Housing and utilities	21,04	23,20	11,79
Household contents, equipment and maintenance	6,14	5,62	6,67
Health	1,48	1,47	1,68
Transport	17,79	19,16	21,42
Communication	3,13	3,21	3,67
Recreation and culture	3,93	4,30	4,77
Education	2,15	2,33	2,49
Restaurants and hotels	2,78	2,68	3,16
Miscellaneous	13,30	13,54	15,45

*Headline CPI for Primary urban areas; CPIX for Primary and Secondary urban areas

Table 3 compares the new weights with the current CPI weights for total country. Readers wanting more detail on the economic factors driving changes in expenditure are referred to the Analysis report of the Income and Expenditure Survey available on the Stats SA website.

Table 3. CPI weights total country 2000 and 2006

COICOP category	2000 weights	2006 weights
Food and non-alcoholic beverages	26,60	18,28 (20,19 including restaurants)
Alcoholic beverages and tobacco	2,86	5,56
Clothing and footwear	3,87	4,42
Housing	22,46	21,04
Household contents, equipment, and maintenance	7,69	6,14
Health	5,13	1,48
Transport	12,98	17,79
Communication	2,71	3,13
Recreation and entertainment	3,17	3,93
Education	3,22	2,15
Restaurants and hotels	n/a	2,78 (0,87 excluding restaurants)
Miscellaneous	9,31	13,30

The new weights see a shift from commodities to services. The share of services in the 2000 weights is 38,1%. In the new weights set, services will account for 43,7% of total consumer expenditure.

The most significant changes have taken place in the food, transport and miscellaneous categories.

Food

The food weight drops from 26,6% to 20,2% (including restaurants in both figures). A reduction in the proportion of expenditure on food is to be expected in the context of an increase in per capita GDP. However, a comparison of the food groups between 2000 and 2006 shows that there has not been significant change in the distribution of food expenditure.

Transport

The weight for transport increases from 12,98% to 17,79%. Specifically, the weight for the purchase of motor vehicles has increased from 4,81% to 10,23%. Figures sourced from relevant industry organisations confirm the level of the car sales found in the IES.

Insurance

The weight for insurance has increased significantly between 2000 and 2006. Insurance expenditure includes property and vehicle insurance as well as medical aid contributions. Insurance as a proportion of the total rose from 1,81% to 7,21%. Medical aid contributions and other health insurance in particular have increased significantly from a 2000 weight of 1,33% to 3,37% in 2006.

Health

One category that experienced a significant drop in weights is health. The health weights include only expenditure actually incurred by households, and not expenditure incurred by employers or medical aid schemes on behalf of households. This was not the case in the 2000 weights. It is also possible that consumers shifted their expenditure from actual health purchases to medical aid contributions. Thus, when comparing equivalent data from the 2000 and 2006 IE Surveys, health shows only a small increase

in its proportion from 1,5% to 1,9% whereas the 2006 CPI weight is 1,48% compared to 5,13% in 2000.

4. Data sources informing the weights

According to general international practice, a survey of household expenditure (Income and Expenditure Survey) provides the basis of the CPI weights. The CPI weights are based on the total consumption expenditure as recorded in this survey. However, well established practice is that additional sources are used in cases where the IES may under- or over-report certain expenditures.

The difference in expenditure proportions between the IES and the new CPI weights is shown in Table 4. Although the weights are reported as a percentage, they are calculated on the Rand value of total expenditure. All adjustments to the IES are made on the basis of actual expenditure, not the final proportions.

Table 4. Difference in expenditure proportions between IES and CPI weights

	IES shares*	CPI 2006 weights
Food and non-alcoholic beverages	14,43	18,28
Alcoholic beverages and tobacco	1,15	5,56
Clothing and footwear	4,95	4,42
Housing and utilities	23,58	21,04
Household contents, equipment, and maintenance	6,89	6,14
Health	1,66	1,48
Transport	19,92	17,79
Communication	3,51	3,13
Recreation and entertainment	4,60	3,93
Education	2,42	2,15
Restaurants and hotels	2,20	2,78
Miscellaneous	14,39	13,30

*Does not total 100% because unclassified items are excluded

Adjustments have been made to the IES results in respect of frequently purchased items: Food and non alcoholic beverages, and Personal care (under Miscellaneous), Restaurants, and Alcoholic beverages and tobacco. These are the only areas in which there was clear and systematic under-reporting in the IES.

Frequently purchased items

The 2006 IES used a diary method for collecting expenditure on items purchased during the survey month. There was also a structured questionnaire for collection of data on items purchased less frequently than once a month. Expenditure items that were only collected by the diary are:

- Food and non alcoholic beverages,
- Personal care,
- Alcoholic beverages and tobacco, and
- Restaurants.

The IES Analysis report admits that the huge drop in food expenditure between the 2000 and 2006 surveys is partly explained by the change in survey method. The same would apply to other items collected by the diary. The IES did not quantify the impact of the diary on the drop.

IES diary data were adjusted for CPI purposes by the use of additional data sources. Specifically, they were compared with the Private Consumption Expenditure Accounts of the GDP, sectoral surveys conducted by Stats SA of the retail, motor trade and food and beverages industries and data from various industry sources.

Food and non alcoholic beverages

Stats SA conducted a large sample survey of the retail trade in 2005. By making small adjustments to the results of this survey to compensate for the informal sector, varying time periods and sales to other businesses, Stats SA arrived at a total value of sales of food and non alcoholic beverages to households of R143,4 billion compared to the R100 971 billion derived from the IES. This sales figure was used instead of the expenditure value derived from the IES. The distribution of expenditure on different food groups in the IES compares well to sales from South Africa's large supermarket chains. On this basis, the proportions within food and non alcoholic beverages from the IES were maintained.

Personal care

No proper data exists on the sales of personal care items as classified by COICOP. An assumption was made that as these items are typically bought at the same outlets as

food and non alcoholic beverages (e.g. supermarkets) they would be under reported to a similar extent. The expenditure reported in the IES for personal care items was therefore inflated by the same proportion as food.

Restaurants

Expenditure on food and drinks purchased in restaurants, take away outlets, and bars etc was not recorded in any specific detail in the IES. These expenses might not be reported in a survey interview as purchases are usually made by multiple household members in their individual capacity. In 2005 Stats SA began a survey of the food and beverages industry. Turnover figures in this survey were adjusted to exclude business expenditure and commercial catering operations. This led to an expenditure value of R15 billion, compared to the R9,6 billion found in the IES, which has been used for the CPI weights.

Alcoholic beverages and tobacco

Around the world, respondents in household expenditure surveys under report their actual purchases of alcohol and tobacco. This was equally the case with the 2006 IES, and previous versions of the survey in South Africa. In order to obtain a more accurate level of expenditure for these items, Stats SA utilised data on excise taxes and volume sales data from producer organisations. This exercise resulted in an estimated expenditure level of R43,6 billion compared to R8 billion from the IES.

All other values used in the CPI weights are taken directly from the Income and Expenditure Survey results. Table 5 summarises the categories in which additional data sources were used to derive the expenditure levels for the CPI weights.

Table 5. Summary of expenditure values on specific product classes

R million	IES Expenditure	National Accounts Expenditure ²	CPI Expenditure	Primary Source
Food and non alcoholic beverages	100 971	215 771	131 773	Retail trade LSS
Personal care	8 666	35 378	12 306	
Restaurants	9 633	22 838	15 007	Catering survey
Alcoholic beverages and tobacco	8 065	61 601	43 597	Excise duties

5. Basket of goods and services

The Income and Expenditure Survey informs the decisions on which products and services Stats SA will collect prices. In September last year, a public discussion document was published by Stats SA on the process and outcome of selecting a new basket. Each province has its own basket. A particular indicator product is included in a provincial basket so long as it met a threshold value based on the total expenditure on that indicator product and the number of households recorded as having purchased that indicator product. Air travel was included in the basket following the public consultation process. The indicator products for the health category have also now been included in the list. The number of products in each province and the national total are shown on table 6.

Table 6. Number of Indicator products

Province	WC	EC	NC	FS	KZN	NW	GP	MP	LP	Total
Number	395	364	353	374	370	362	370	360	353	416

The complete provincial baskets and their respective list of products services can be found on Stats SA's website

² Based on 2005 and 2006 figures published by the SARB. These figures are informed by the 2000 IES.