

>> consumer price index



Shopping for two

The CPI new basket parallel survey:
Results and comparisons with published CPI data

3 February 2009

1. Introduction

During 2008 Stats SA collected data for two different CPI baskets. The first, which has been in operation since 2002, formed the basis for the published CPI figures during the course of the year. The second is based on a new CPI basket and its weights. The indices based on these prices will form the basis for the 2009 year-on-year rates of change in the CPI. These indices are released for the first time on 3 February 2009.

This document is based on a presentation made at the launch of the results. It discusses the key similarities and differences in price movements during 2008 using the two sets of data.

2. Background

Since 2005, the South African CPI has been under the microscope. A series of initiatives has laid the basis for the results published today.

- In 2005/06 Stats SA aligned itself with international practice by using field teams to collect prices from retail stores, rather than relying on the stores themselves to provide the information. The employment of fieldworkers has enabled the collection of items such as restaurant prices, minibus taxi fares and house rentals.
- In 2005/06 the Income and Expenditure Survey (IES) was conducted, the results of which provided the main source of information for determining the new CPI basket and weights. The IES was, for the first time, conducted over a whole year, and used a diary questionnaire in which households recorded their expenditure. The IES results were released in March 2008.
- In May 2007 Stats SA announced that the reweighted and rebased CPI would be launched in February 2009. At the same time a dedicated web page was established on the Stats SA website to inform users of changes to the CPI. New documents have been posted on this site continually. The aim has been to ensure transparency and provide users with an opportunity to provide feedback to Stats SA.
- In September 2007 a draft of the new basket was made public and comment and feedback were invited. This basket is significantly streamlined from that which has previously formed the basis of the CPI. The new basket reflects changes experienced by South African consumers with regard to technology and taste. The basket is based on a new classification, COICOP (Classification of Individual Consumption by Purpose), which is the international norm for the classification of items in CPI baskets.

- In January 2008 Stats SA began the collection of prices for products in the new basket. This collection continued throughout the year and its results form the basis of this document.
- In July 2008 the weights for the new basket were published. At the same time several announcements concerning changes in methodology were made. Chief among these was the decision to abandon interest rates on mortgage bonds as an indicator of housing costs. Instead, South Africa will use the internationally accepted method of Owners' equivalent rent. In December 2008 a document providing information on historical trends in Owners' equivalent rent was released.
- In October 2008, as a consequence of the dropping of interest rates from the CPI basket, the Minister of Finance announced that CPIX would cease to be the inflation target measure as from January 2009. Instead, a new Headline inflation measure, the CPI for all urban areas, would also be the inflation target measure. This indicator is the most comprehensive measure of inflation. All reporting of inflation by Stats SA in the future will focus on this Headline measure.

3. Presentation of the results

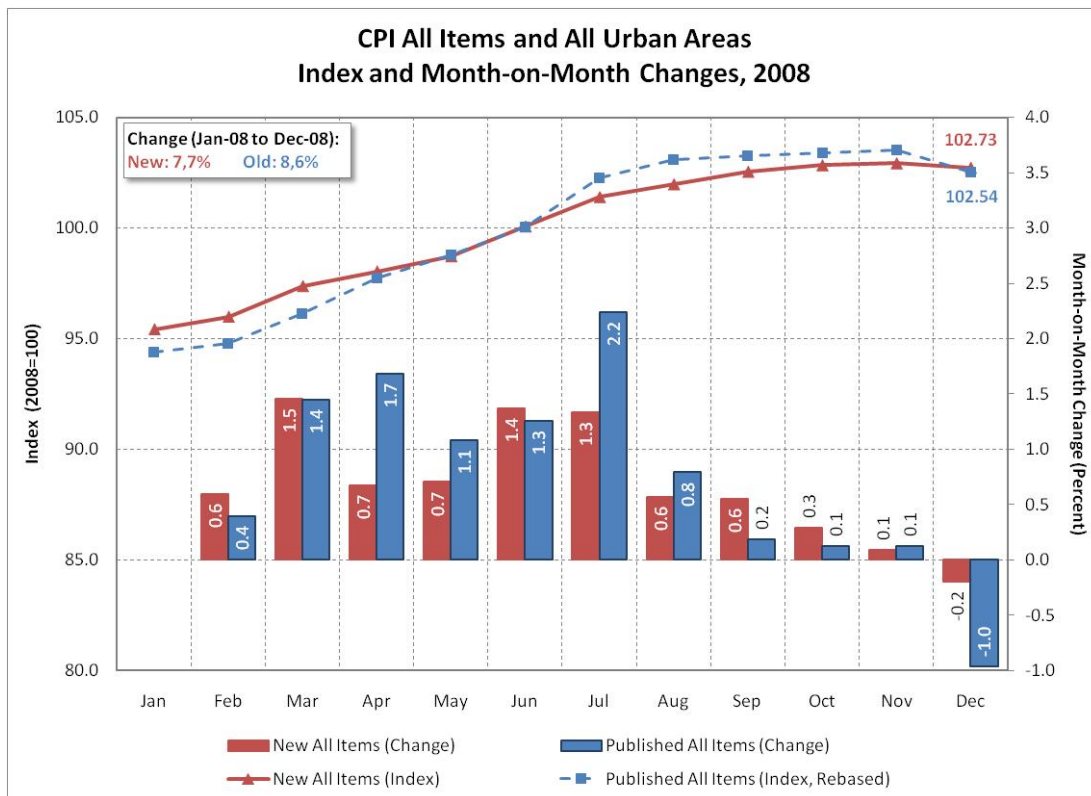
The results presented below compare the new headline measure (CPI for all urban areas) with the published CPI figures for historical metropolitan and other urban areas. Both sets of indices have been rebased so that the average of the monthly indices equals 100.

Note that the new headline index does not provide a new set of annual inflation rates for 2008, since a full set of comparable prices is not available for 2007. During 2008 the annual inflation rate was calculated using the existing basket and weights (since this provided like-on-like percentage changes from 2007). The new index for 2008 merely provides a new base for calculating the annual inflation rate during 2009, as determined by the new basket and weights. Accordingly, the analysis that follows is restricted to a comparison of the old and new indices in 2008. In most cases the index numbers are graphed and compared. In certain cases month-on-month changes are presented. The headline aggregate results are discussed first, followed by an analysis of each of the major groups.

4. Headline results

The index levels and monthly percentage changes for the two series are shown in Figure 1. The two series show similar trends in prices. Generally the published CPI has increased at a faster rate than the new index, with its rate of change over the 11 months from January to December being 8,6% compared to 7,7% for the new. The 11-month rate of change is simply the percentage change from January 2008 to December 2008; the first 12-month (or annual) rate of change in the new index will be published on 25 February 2009 (percentage change from January 2008 to January 2009). This higher increase was largely a result of the higher weighting for food and petrol in the published index, components which experienced particularly high inflation during 2008. Interest rate increases in April and June also affected the published figures. The increase in Electricity tariffs in July had a greater impact on the published figures than on the new index because of their greater weighting in the old basket.

Figure 1



The two indices converged to within 0,19 index points of each other in December. This was largely a result of the interest rate decrease in December and the sharp drop in the petrol price, which had a greater impact on the published rates. The parallel index in December was 102,73 and the published index (rebased) was 102,54.

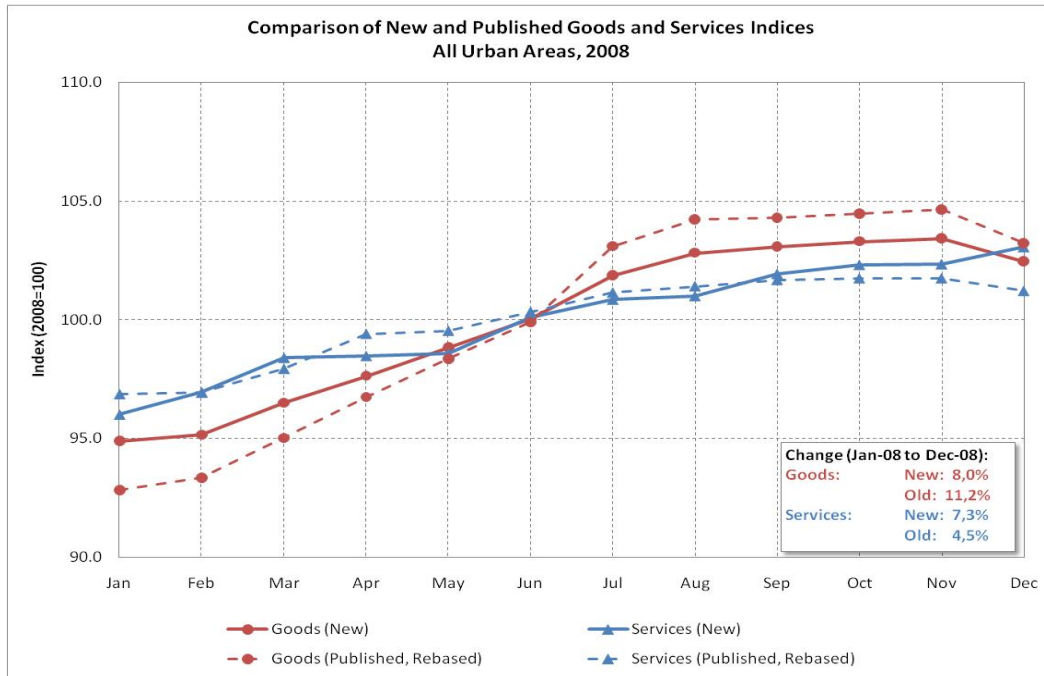
Table 1 shows the difference in the 11-month rates of change for two indices. This shows the impact of rebasing and all other changes (weights, basket, methods). The difference between the old Metro and other urban areas and the new Headline is 0,9 of a percentage point. The difference between CPIX and its closest index in the new series, CPI excluding Owners' equivalent rent, is 1,2 percentage points. The lower rate of change in the new index confirms the expectation expressed in Stats SA's "Transition to the 2009 CPI" (1 July 2008) that the reweighting would result in a decrease in the level of measured inflation.

Table 1: Difference in 11-month rate of change between selected published and new indices

	All urban areas	
	All items	CPIX / CPI excl OER
Actual published (2000=100)	8,6%	9,0%
New CPI (2008=100)	7,7%	7,8%
Difference	-0,9%	-1,2%

Figure 2 shows the difference in the indices for goods and for services in the published and the new CPI. It is notable that the rate of change between January and December for goods is higher in the published index (11,2%) than in the new index (8%). The opposite situation is evident, however, when it comes to services. The new basket shows an 11-month rate of change of 7,3% compared with 4,5% in the published figures. Key factors influencing a higher rate for services are Actual rentals and Owners' equivalent rentals in the Housing category; Restaurants and hotels; and Insurance (under Miscellaneous). All of these are discussed in more detail below.

Figure 2



5. Key differences in components of the CPI

This section examines each of the main categories of the CPI and compares the inflation result using the new and old baskets. For each category the index numbers are presented in a graph. In certain instances, the month-on-month changes for a specific product or group of products are analysed. There are 403 indicator products in the new CPI basket. They are grouped into the 12 COICOP categories and a further 32 product classes. In cases where the indicator products and their weights differ significantly between the old and new baskets, differences are evident in their inflationary behaviour. However, when very little change has occurred in the product composition, very few differences are observed in the inflationary trends.

a) Food

The published food index (Figure 3) shows a higher rate of change between January and December 2008 of 15,0% compared with the 13,8% shown by the new food index. However, the index lines generally follow the same pattern.

Figure 3

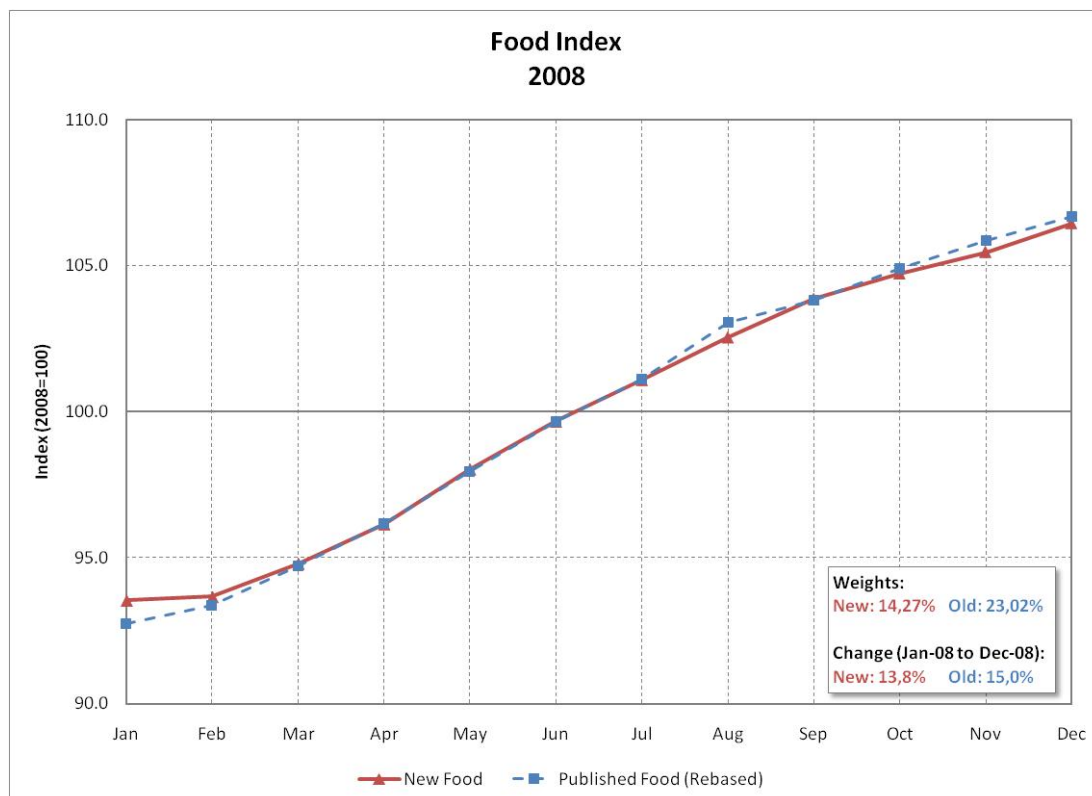


Figure 4

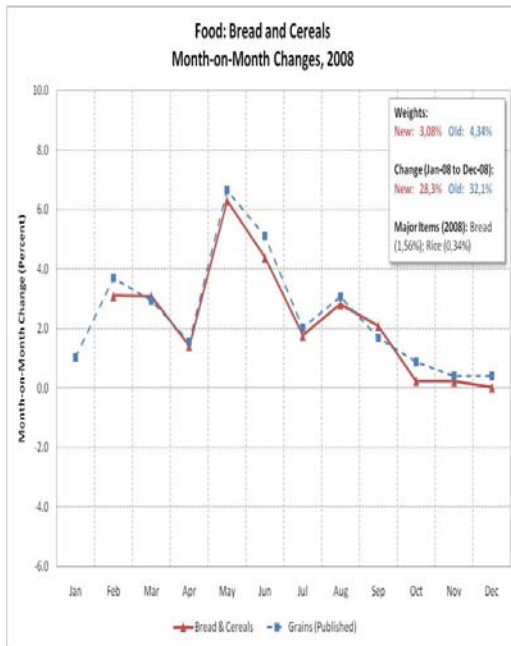
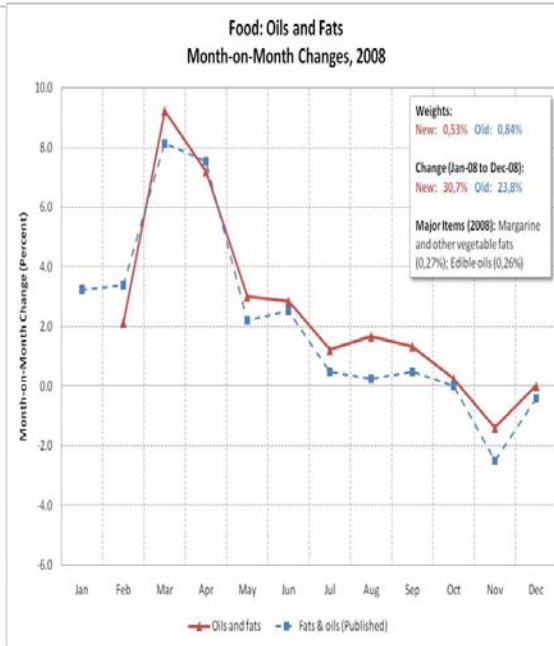


Figure 5



Bread and cereals and Oils and fats are two product groups in which few changes are found between the old and new baskets. Figures 4 and 5 show the month-on-month changes for each of these groups. It can be seen that the monthly changes of the two baskets are substantially similar although the new has a higher 11-month inflation rate. This is largely due to the pricing trends of butter and olive oil, which are excluded from the new basket.

Figure 6

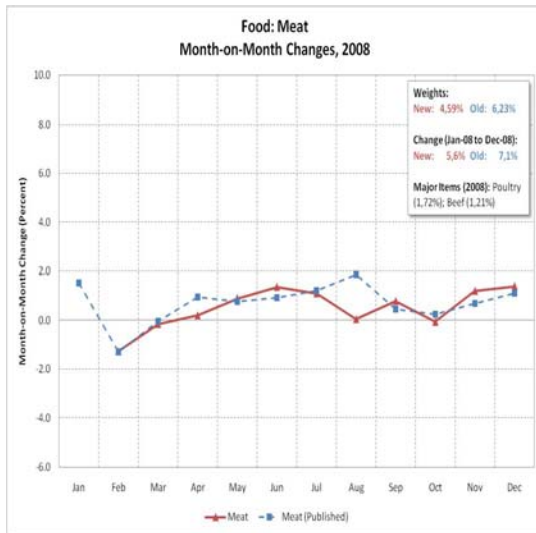
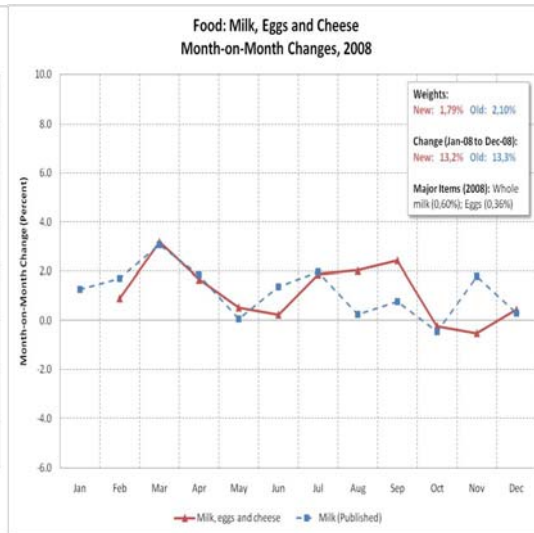


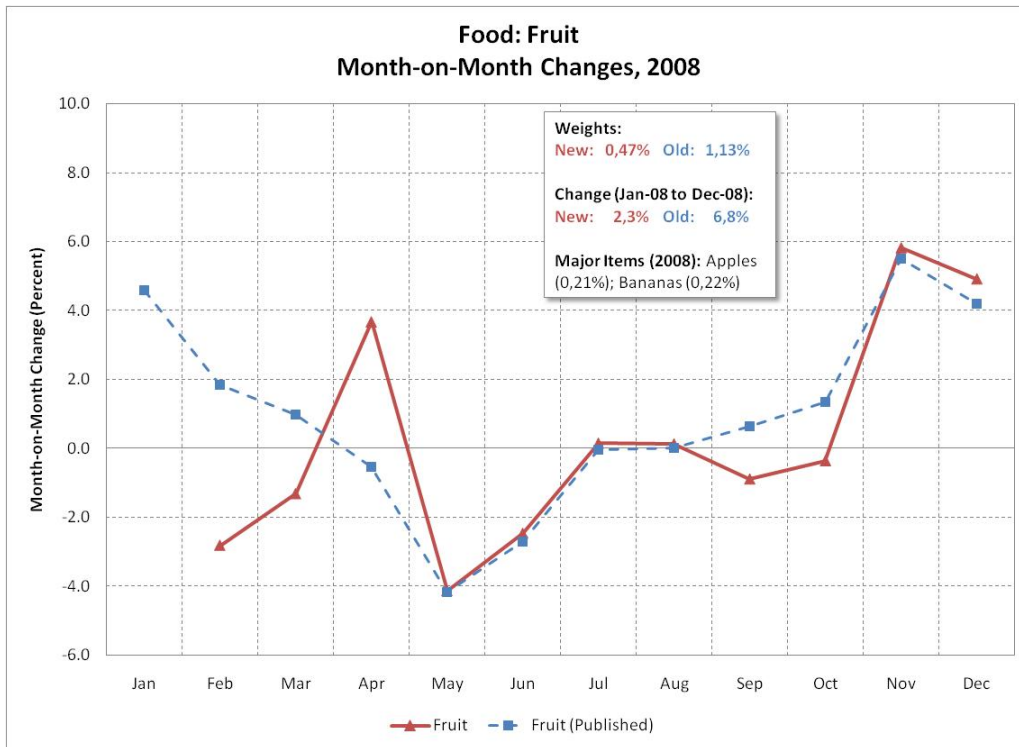
Figure 7



In contrast, Figures 6 and 7 show the Meat and the Milk, eggs and cheese groups. Both of these groups have seen some significant changes in their composition. For example, the number of cuts of different types of meat has been reduced in the new basket, and frozen chicken has been included. Similarly, custard and sour milk have been included in the Milk, eggs and cheese group. In both these cases, the changes to the basket account for the difference in the month-on-month changes in the index.

Since the publication of the final CPI basket in July 2008, a small adjustment has been made to the basket for Fruit. Originally, there was a set of fruits that was included in the Western Cape basket and no other. Once collection began it became evident that many of these fruits were seasonal and difficulty was experienced in regularly collecting their prices. A decision was therefore made to limit the fruit basket to only four fruits: bananas, apples, oranges and lemons, which generally tend to be available during the whole year. The weight that had previously been allocated to stoned and other fruit has been allocated to bananas.

Figure 8

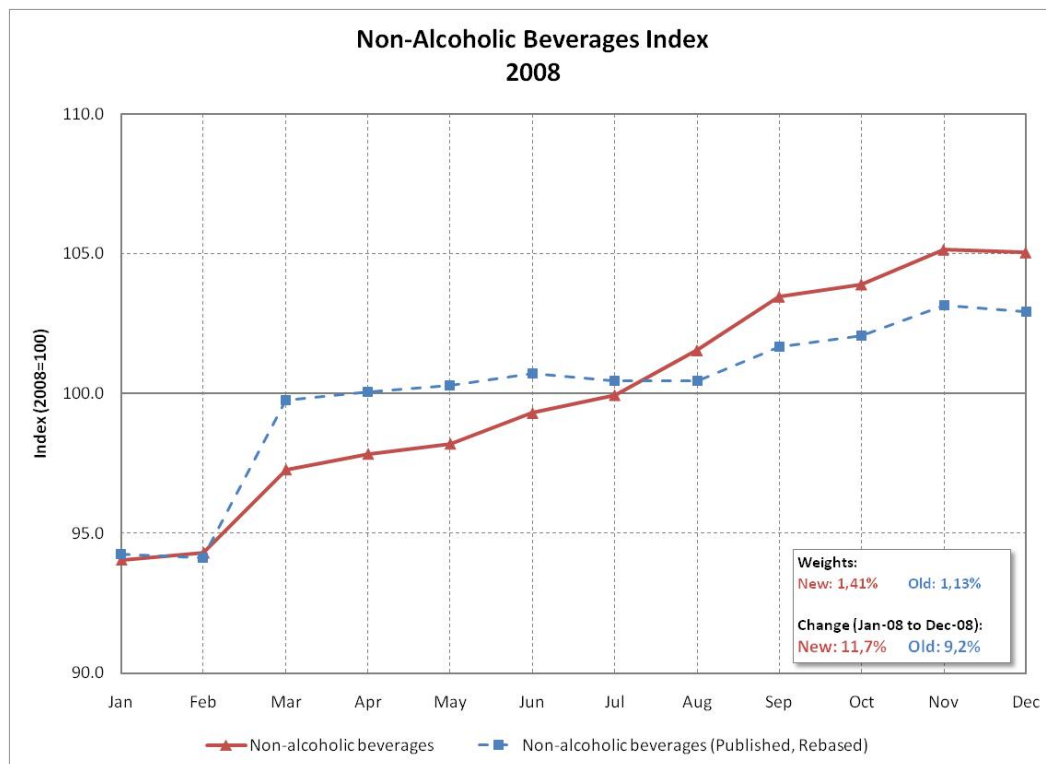


The published data contain a broader range of fruits, many of which are seasonal. The divergences in the month-on-month trends shown in Figure 8 are explained by the seasonal behaviour of certain fruit in the old basket. However, for much of the rest of the year following April (except for a period in September and October) the month-on-month changes in the published and new indices are largely similar.

b) Non-alcoholic beverages

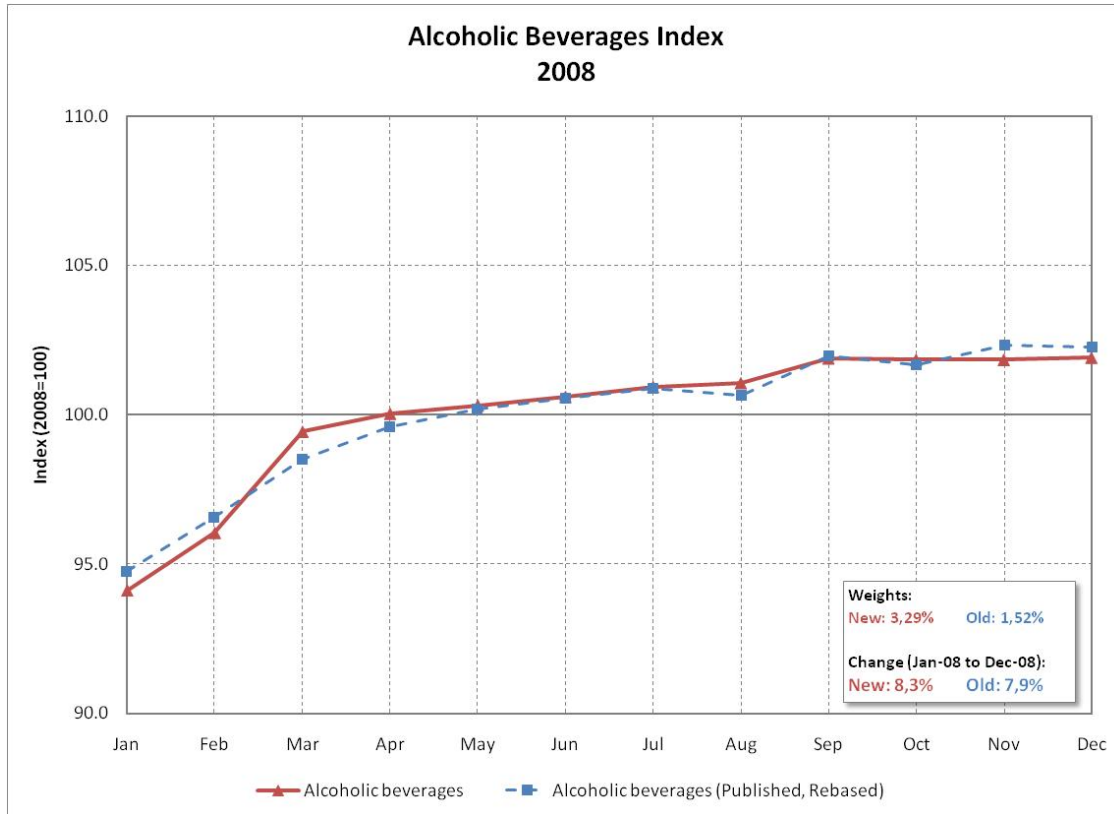
The new basket for Non-alcoholic beverages has fewer products than the previous set of products. Specifically, herbal tea and hot chocolate are no longer in the basket. Changes to the basket are the main reason for differences in the respective behaviours of the old and new indices illustrated in Figure 9.

Figure 9



c) Alcoholic beverages

Figure 10

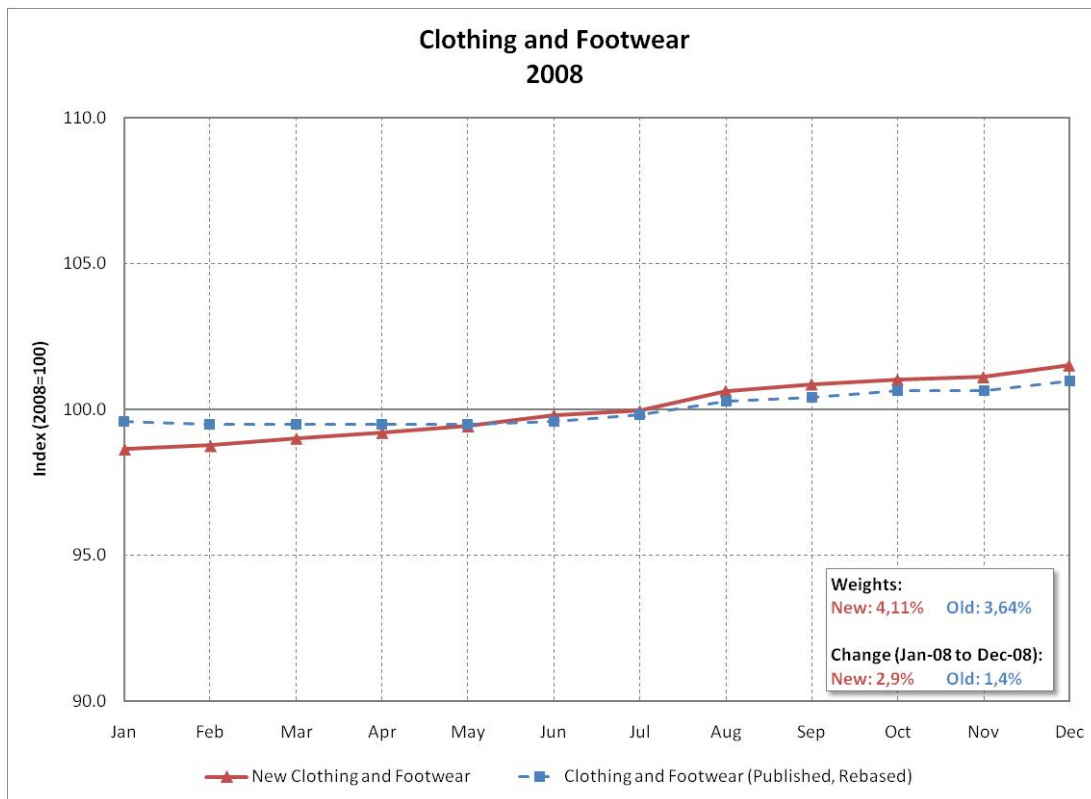


There have been few changes in the basket for alcoholic beverages. The indices as shown in Figure 10 behave similarly.

d) Clothing and Footwear

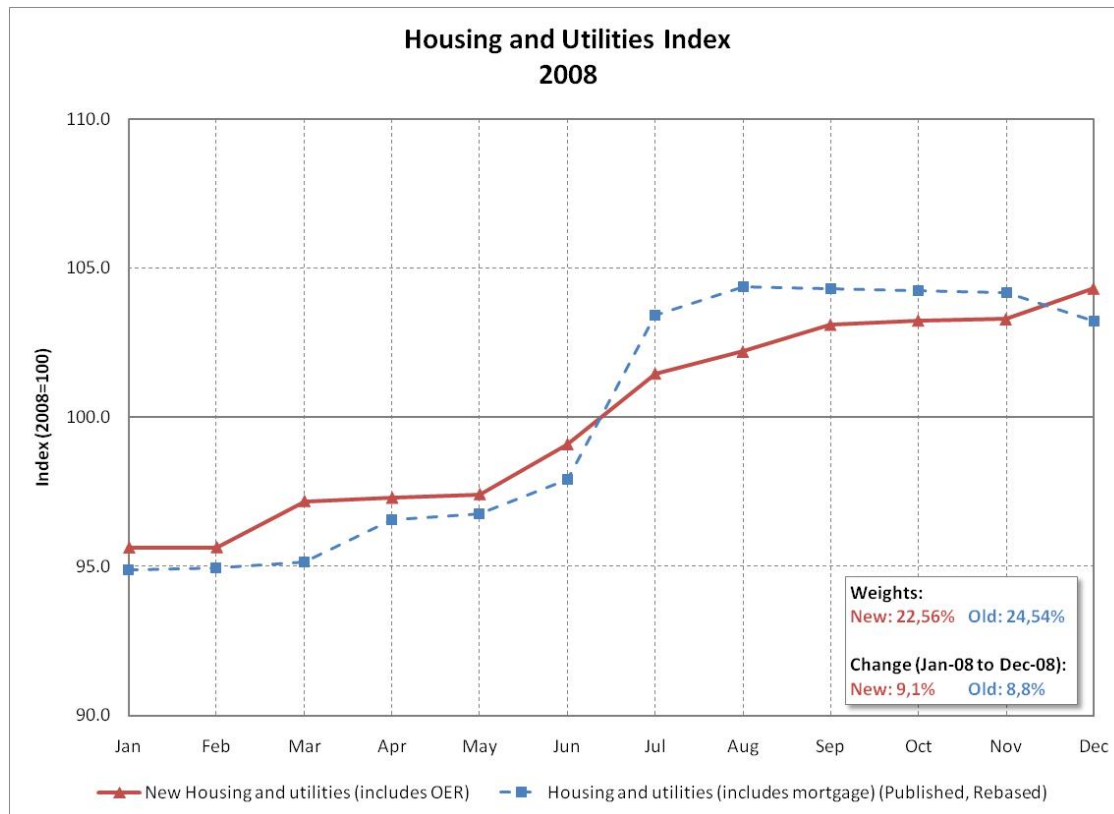
The specifications against which the fieldworkers are instructed to price clothing have been broadened in the new basket. For example, instead of specifying a 'BLOUSE - SUMMER - SHORT SLEEVE/SLEEVELESS - Made from SYNTHETIC FABRIC' the specification now reads 'Blouse'. The price collector then identifies the most popular blouse available in a specific outlet and price that over a period of time. The objective of broadening the descriptions in this way is to reduce the frequency with which specific items may not be available. By reducing these 'temporary unavailable' occurrences, we aim to ensure that more items feed into the index for longer. This leads to an index that is more responsive to price changes in clothing and footwear. As a result, the new basket index shows a higher level of 11-month inflation at 2,9% compared with 1,4% in the published figures.

Figure 11



e) Housing and utilities

Figure 12



Housing is perhaps the category that has been subjected to the most substantial change. The published index (see Figure 12) was strongly influenced by interest rate increases in April and June and a decrease in December. The electricity increase in July affected the published figures more significantly because of its larger weight of 3,18% in the old basket compared with 1,68% in the new basket.

Figure 13

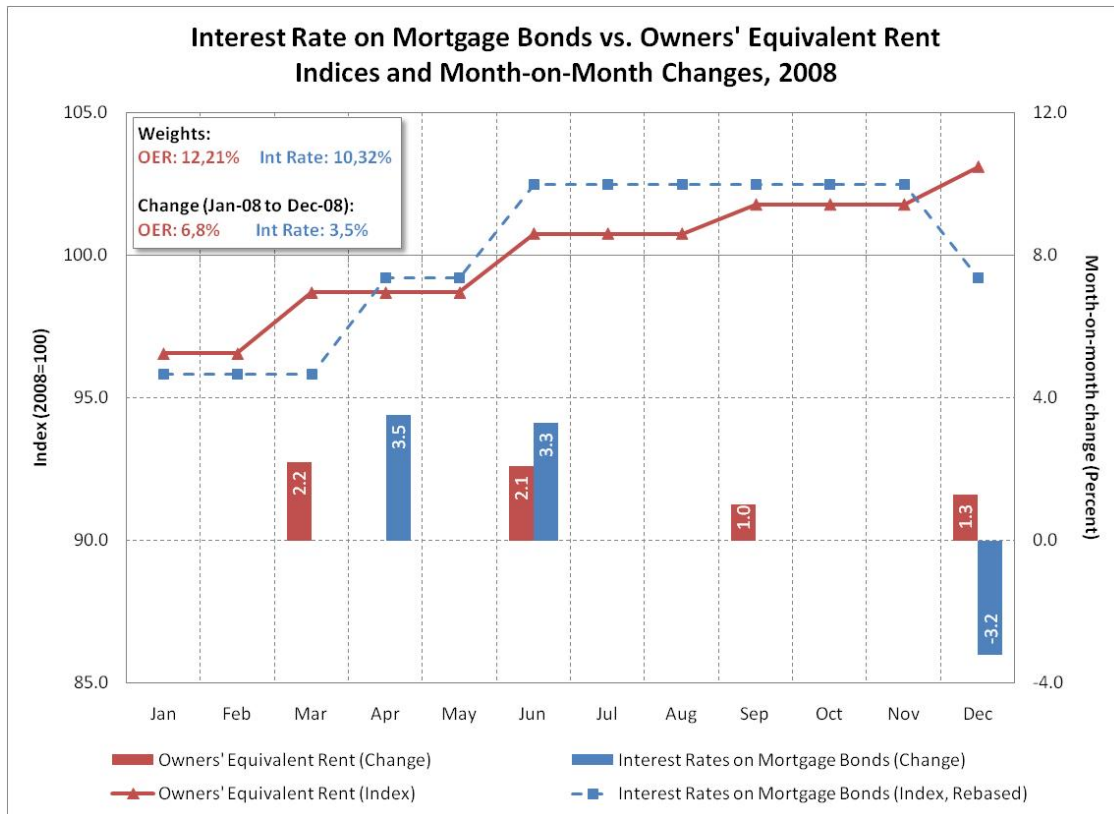
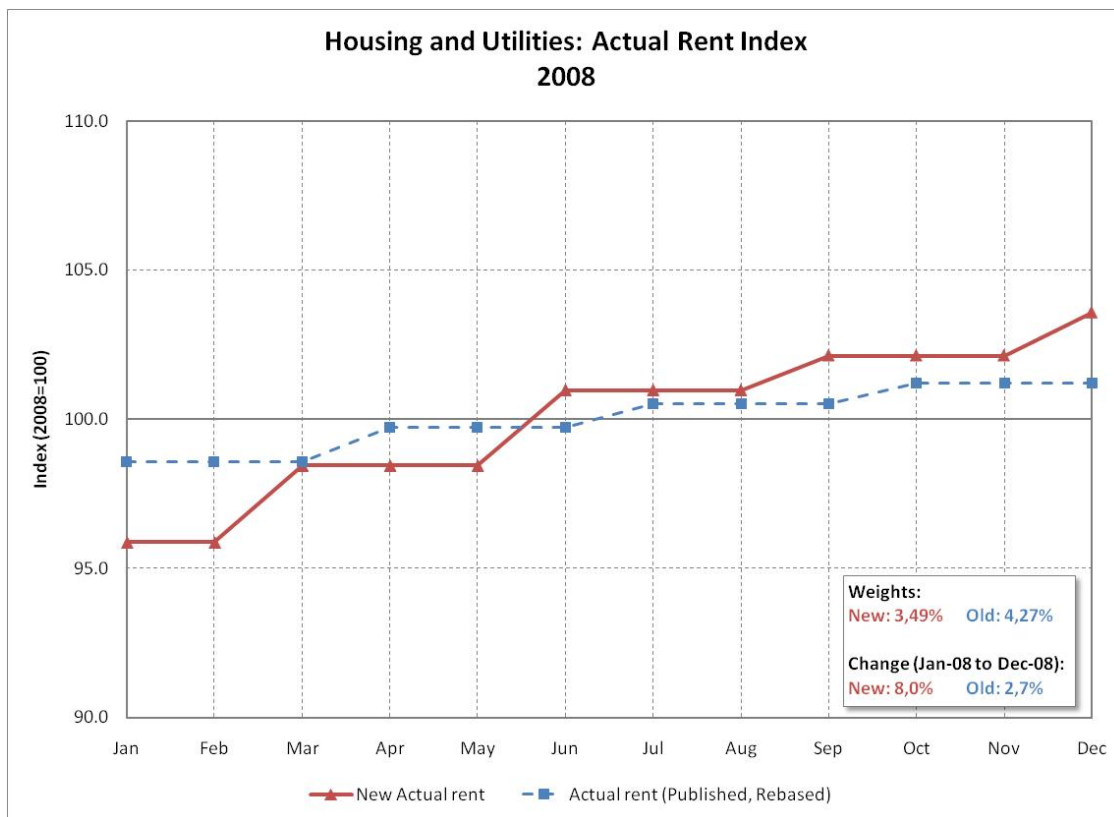


Figure 13 shows the impact of using Owners' equivalent rent (OER) in the new basket compared with the historical practice of using interest rates on mortgage bonds as an indicator of housing costs. Owners' equivalent rent is updated on a quarterly basis using the Stats SA rental survey. OER shows an 11-month rate of change of 6,8% compared with 3,5% for interest rates on mortgage bonds.

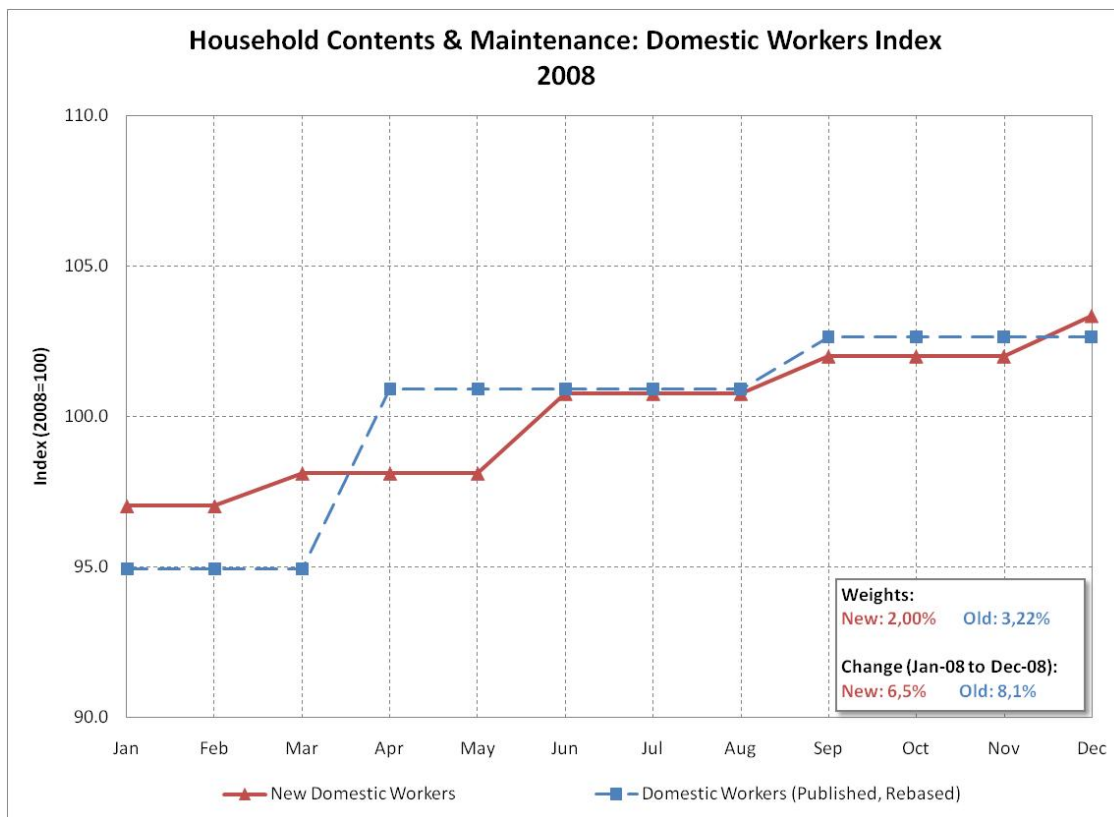
The source for the Actual rentals index differs for the two baskets as shown in Figure 14. The published figures are based on a survey that Stats SA outsourced to a firm of property economists. In the new basket, Stats SA's rental survey provides the source data for actual rentals as well as OER. The quarterly results from the survey are fed into the Actual rentals and OER indices in the last month of each quarter. This is an improvement over the old index where the numbers were introduced in the month following the last month of the quarter. The different source data and timing account for the differences in the two indices for actual rentals.

Figure 14



The household contents and maintenance category (see Figure 15) is largely driven by changes in the index for domestic workers' wages which accounts for 34% of the weight of the category. Stats SA has made two improvements in its use of the Unemployment Insurance Fund (UIF) data for tracking domestic workers' wages. Firstly, updates to the index will be made quarterly rather than bi-annually. Secondly, the method of comparing results between consecutive quarters is different. The new basket delivers an 11-month rate of change of 6,5% compared with the 8,1% in the published data.

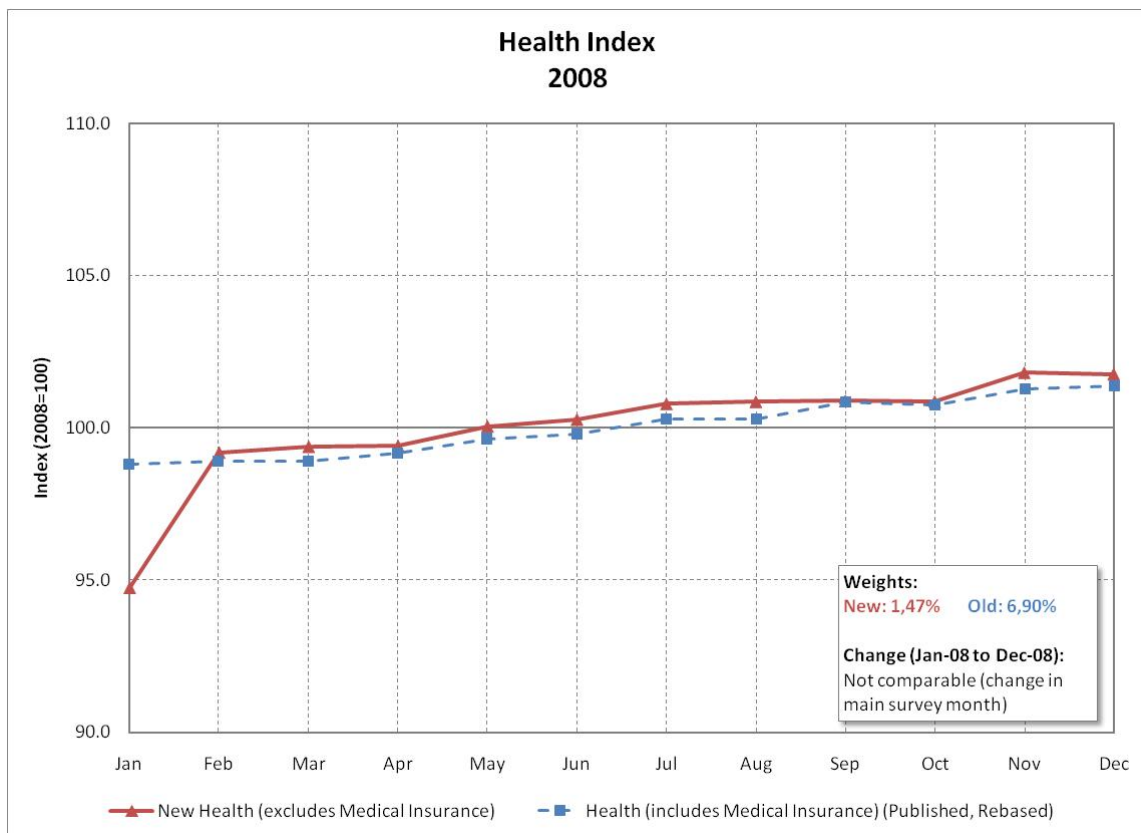
Figure 15



f) Health

The two main changes affecting health are the moving of medical aid contributions to the insurance group; and the introduction of a survey of medical professionals. In order to provide adequate time for the collection and compilation of the survey of medical professionals, the date for including the survey results in the CPI has shifted from January to February. This change is evident in the graphed indices in Figure 16. For the rest of the year, the two indices follow each other closely.

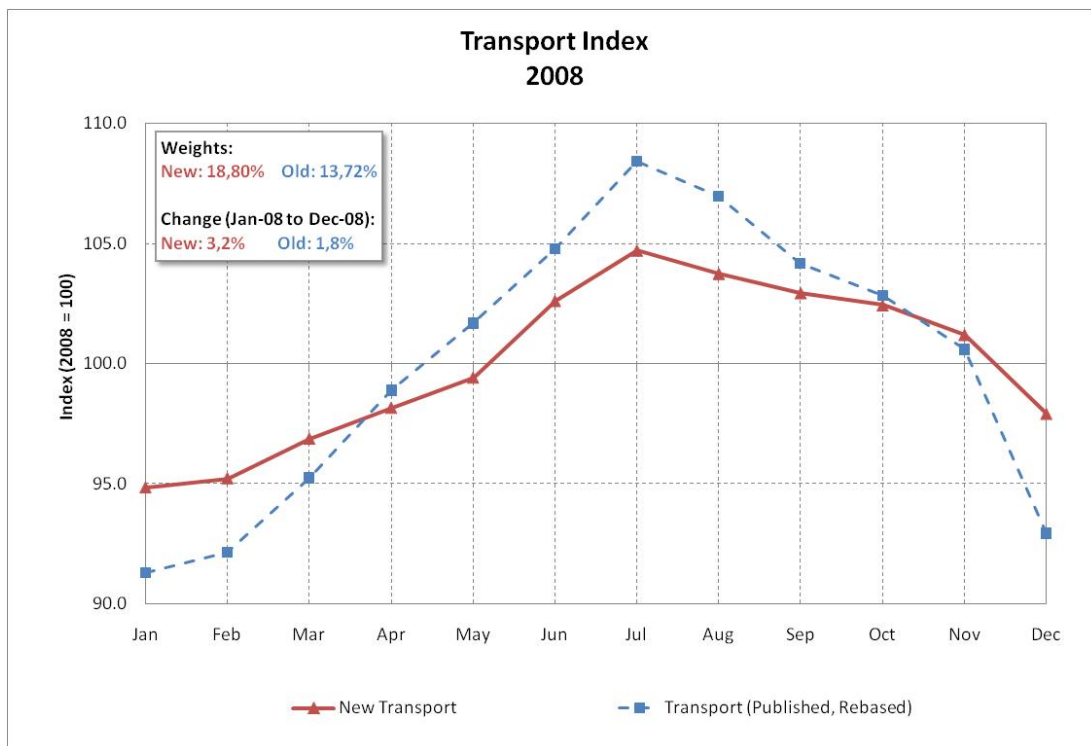
Figure 16



g) Transport

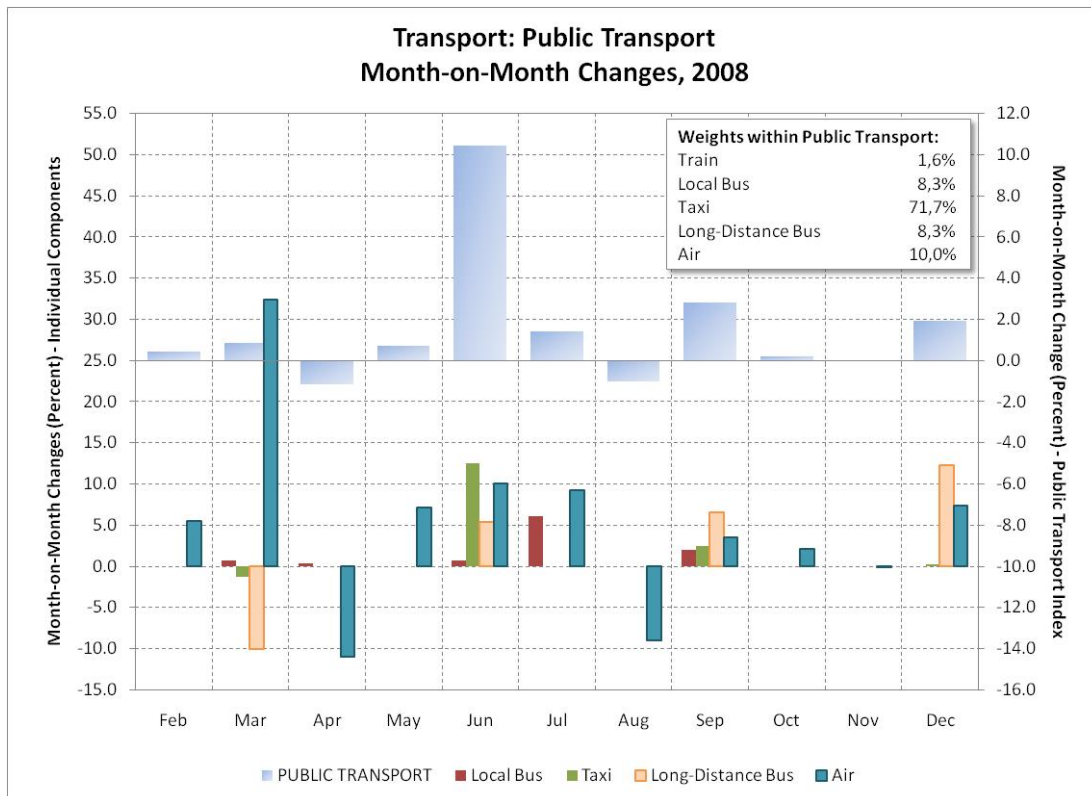
The aggregate transport indices are primarily a reflection of changes in the petrol price in 2008 (Figure 17). The published index has a higher weighting for petrol (4,55%) compared with the new index (3,93%). This is evident in the steeper increase in the first half of the year and the steeper decrease from August in the published figures.

Figure 17



The composition of the public transport index has changed substantially in the new series with the introduction of minibus taxi fares (weight 1,95%). Figure 18 shows the behaviour of the different modes of public transport. Minibus taxi fares and fares for long distance buses are surveyed quarterly whereas airfares are surveyed monthly. The aggregate index shows a 10% monthly increase in March on the basis of significant increases in all three of these sub-indices. Increases of approximately 2% are evident in September and December.

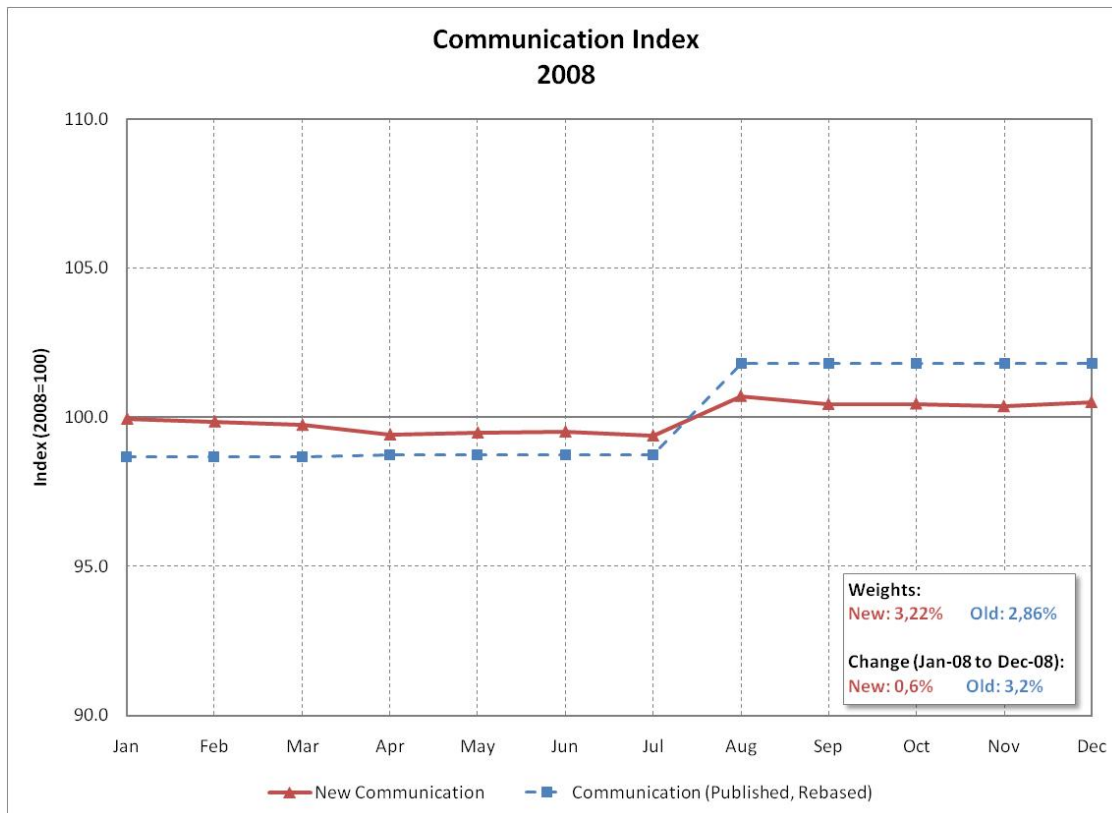
Figure 18



h) Communication

The published and new basket indices for communication tend to show a similar trend (Figure 19). It is evident that the increase in land line call fees in August had a bigger impact in the published numbers because of their larger weight (1,98%) compared with the new basket (1,26%). The overall communications weight has increased in the new basket from 2,86% to 3,22%. The difference in the weighting is a reflection of the greater importance given to cell phones in the new basket. Other variations over 2008 in this group of the new basket index are mainly caused by fluctuations in the prices of cell phone handsets and packages.

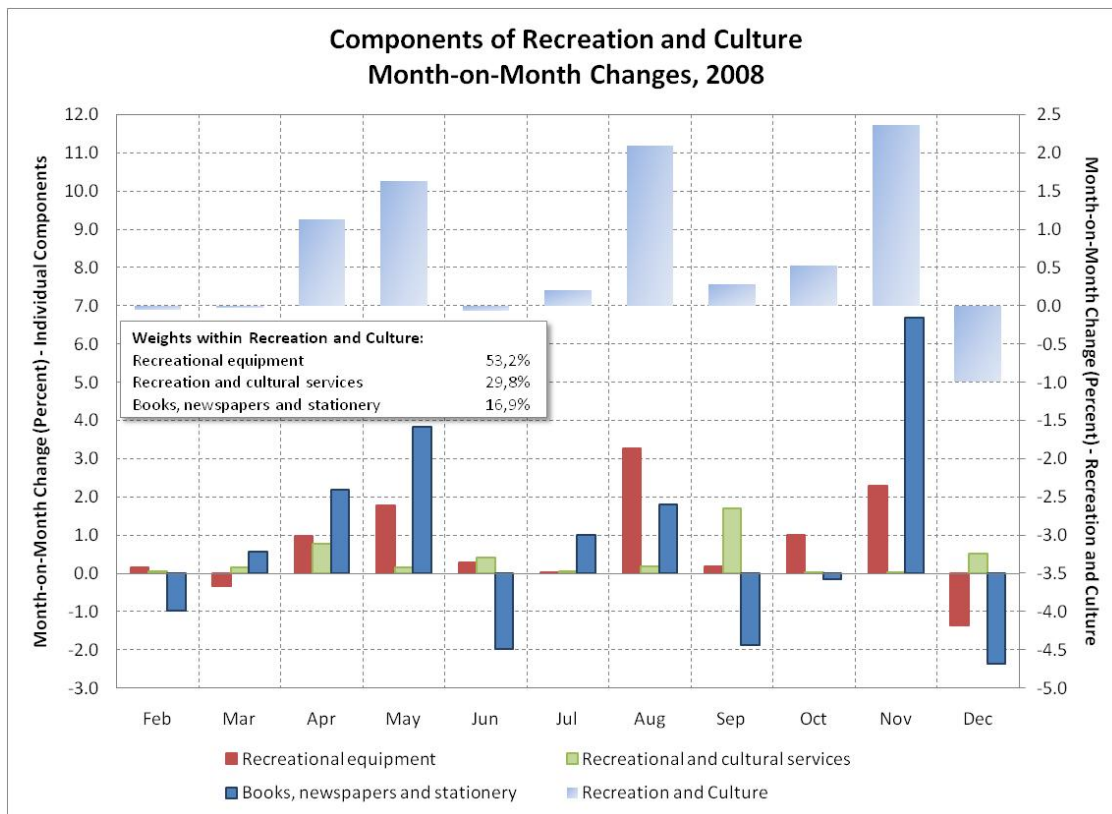
Figure 19



i) Recreation and culture

The items which make up the products and services for recreation and culture are substantially different in the new basket. The overall indices are therefore not strictly comparable. Figure 20 shows the aggregate and component monthly changes for Recreation and culture. The methodology for the collection of books has changed in the new basket with the average price of the top 10 or top 20 books in each major chain being priced. The monthly changes are largely a reflection of the composition of the bestseller lists, going up when there are more expensive books in the list and down when cheaper book predominate. Recreational equipment, which includes audio-visual equipment, CDs, DVDs and toys, and represents over half of the weight of this category, showed increases in most months, except for March and December when there were price decreases.

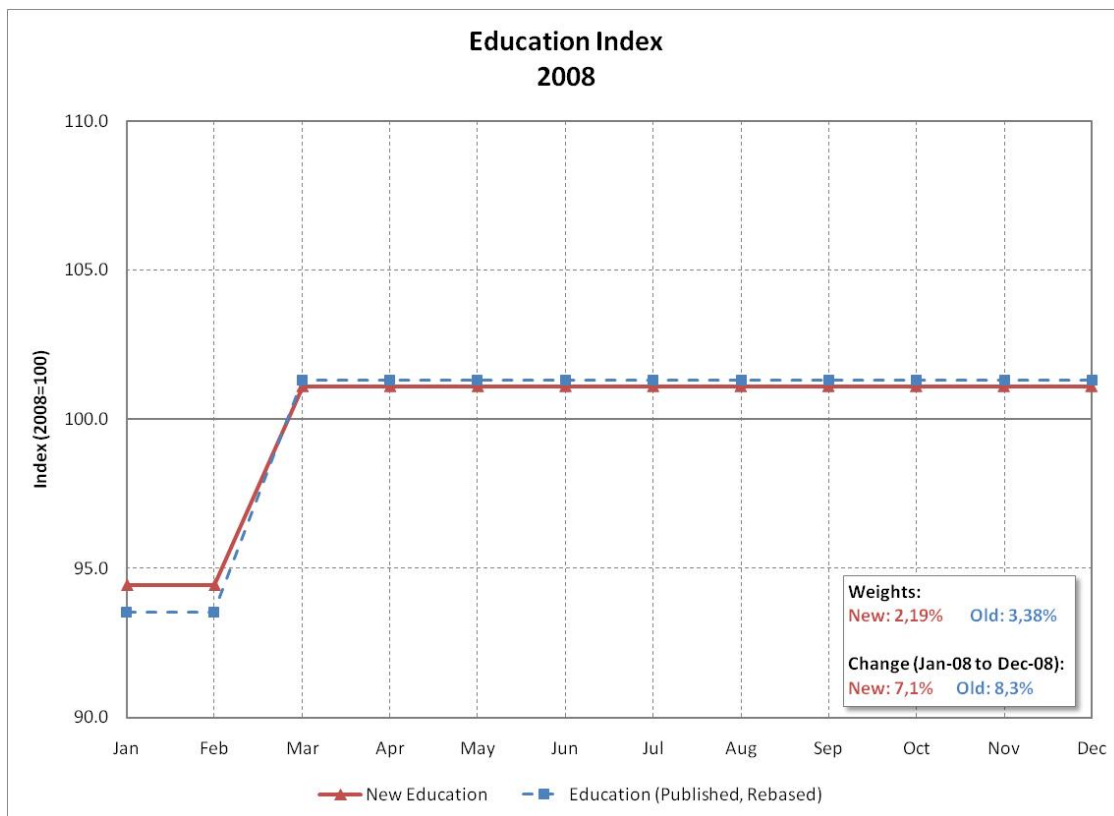
Figure 20



j) Education

The published and new indices for education show no significant variation (Figure 21). The 11-month rate of change in the published index was 8,3% compared with 7,1% in the new index. This difference is mainly accounted for by the exclusion of university accommodation (now under Hotels) and the broadening of the sample of universities and schools.

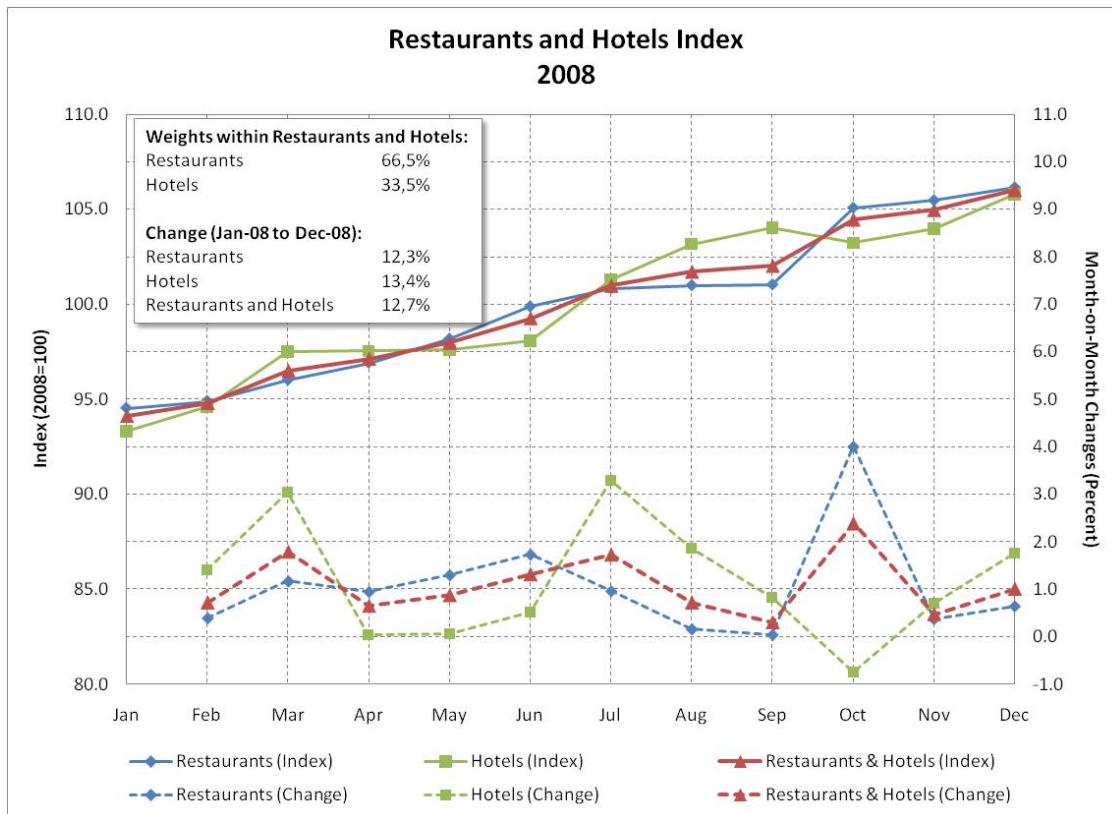
Figure 21



k) Restaurants and hotels

The category of Restaurants and hotels appears in the CPI annual rate for the first time from 2009. Figure 22 shows the index levels and the month-on-month changes for Restaurants, for Hotels and in combination. It is notable that the 11-month rate of change for the Restaurants and hotels index is 12,7%, which is significantly higher than the headline aggregate rate of change of 7,7% for the same period. The Hotels index shows significant monthly increases in March, July and December months, which coincide with the main holidays in the country.

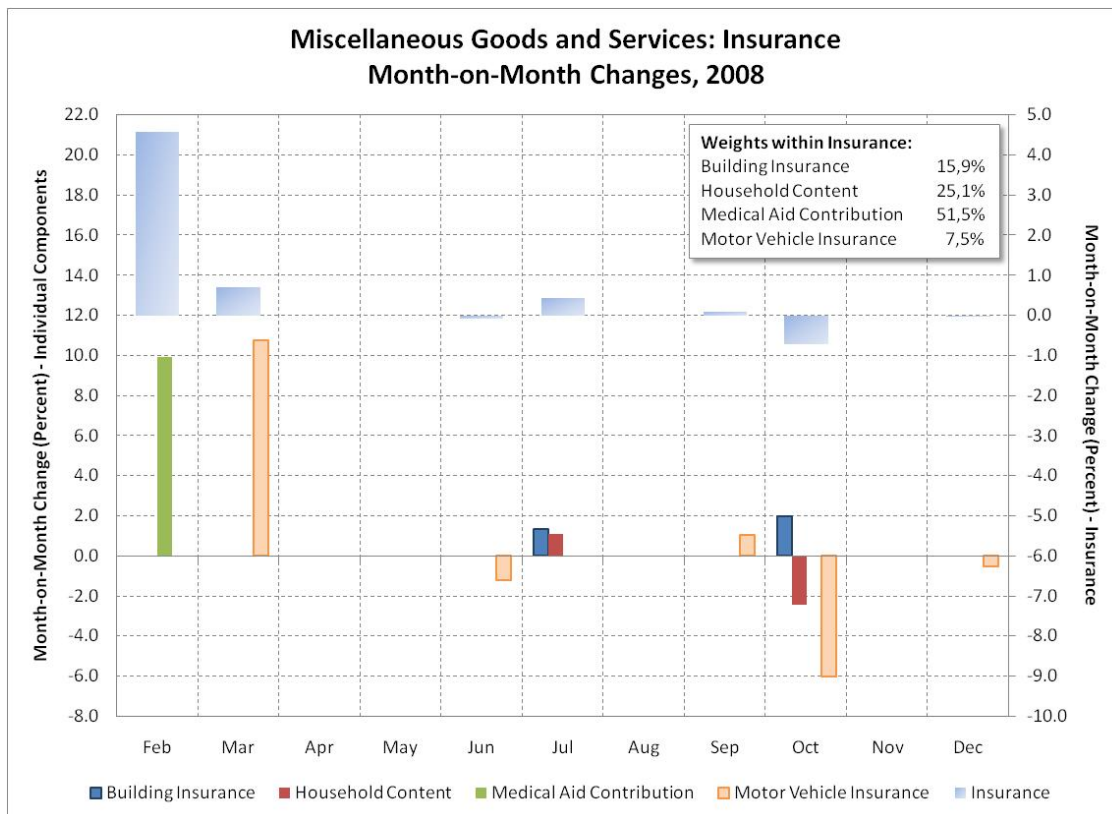
Figure 22



I) Miscellaneous and Insurance

The Miscellaneous goods and services category contains Insurance services, Financial services, Personal care and Funeral services. It is not comparable with the published Miscellaneous index which did not contain insurance or funeral services. Previously insurance was included under the group for which cover was provided (medical insurance under Health, dwelling insurance under Housing etc.). The basket now includes a separate Insurance group with a weight of 7,7%. Figure 23 shows the monthly movements for the different types of insurance premiums. Medical aid premiums only increase once a year at the beginning of the year. These are now brought into the CPI in February of each year. There was a 10% increase in medical aid premiums at the beginning of 2008. Motor vehicle premiums showed an increase of over 10% in March but then recorded decreases in June, October and December.

Figure 23



end