Clothing in the South African CPI: Exclusion of clearance sales

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Aim of this paper

To demonstrate a simple method for dealing with clothing prices in absence of quality adjustments
Pattern of clothing and footwear over long period

[Graph showing the pattern of clothing and footwear index from January 1988 to January 2007. The graph compares CPI_metro and Clothing and Footwear indices over time.]
Understanding clothing deflation from 2003

- Deflation initially attributed to cheap imports from East
- Corroborated by anecdotal information from retailers
- By mid 2006, general inflation accelerating
- Clothing retailers reporting internal inflation
- Certain private sector analysts raise questions about validity of continued clothing deflation
Change in price collection method

**Pre 2005**
- Questionnaires dispatched to retailers (head office)
- Chain stores provide one price (average)
  - Problem: cannot track regional variations
  - No indication of availability
- Strict specifications - *Woman’s summer blouse, short sleeves, made from 100% synthetic fabric.*

**Post 2005**
- Price collectors deployed through the country
- Specifications not changed
- Specific item identified and described for pricing in future months
Typical pricing behaviour

- **Fashion/seasonal items** vs non fashion/seasonal items

- Seasonal patterns not strong

- Item comes onto rack at certain price

- Remains at same price for season (+6 months)

- End of season: two stages of sales
  - General price reduction
  - Final stock clearance

- Substitute item comes in at higher price (usually)
Collection method bias on pricing trends

Old method: capturing an average price, will reflect price change when substitute item is introduced

New method: tracking specific item, captures entry price, then price drop at end of season

New item then initiated and spliced in at same price level as previous item ended

Leads to deflationary trend
“Sale or special offer prices should be recorded if these are either temporary reductions on goods that are likely to be available again at normal prices or are stock-clearing sales (such as January sales or summer sales). Special purchases of end-of-range, damaged, shop-soiled or defective goods should not normally be priced, as they are likely not to be the same quality as, or comparable with, goods previously priced and are unlikely to be available in future. If the special offer is limited to the first customers, the item should not be priced, as the offer is not available to everyone…..”
International precedents

- Many countries require that discounted products be available in adequate quantities to be eligible for pricing and employ quality adjustment techniques.

- Some exclude discount prices if they are not expected to return to normal price.
New South African practice

All end of season discounts are considered to be of a permanent nature and with limited availability.

When an item is discounted then this is recorded by the price collector on the form. The discount price is recorded but is not used in index calculation.

The following month the price collector receives a form requiring identification of a substitute item.
Method of introduction

- Change-over introduced in January 2008
- Took a conservative (strict) view of principle of non revision of historical numbers

Compared

<table>
<thead>
<tr>
<th>2007 indices</th>
<th>2008 indices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Included discounted prices</td>
<td>Excluded discount prices</td>
</tr>
<tr>
<td>Deflationary</td>
<td>Inflationary</td>
</tr>
</tbody>
</table>

- Resulted in steep month on month increase from Dec 07 to Jan 08
Reaction to change

Outcry over the big jump in January

Stats SA committed to publishing the extent of upward bias created by the method of introduction

Bias calculated by creating a non discounted index for 2007 and comparing difference between change in this, with change in published index
## Extent of bias in headline CPI from change in clothing

<table>
<thead>
<tr>
<th>Period</th>
<th>Contribution of clothing to all items % y/y</th>
<th>Contribution of clothing to all items % y/y</th>
<th>Upward bias to all items % y/y from clothing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-discounted on discounted</td>
<td>Non-discounted on non-discounted</td>
<td></td>
</tr>
<tr>
<td>Jan-08</td>
<td>0.174</td>
<td>0.016</td>
<td>0.158</td>
</tr>
<tr>
<td>Feb-08</td>
<td>0.186</td>
<td>0.014</td>
<td>0.172</td>
</tr>
<tr>
<td>Mar-08</td>
<td>0.201</td>
<td>0.012</td>
<td>0.189</td>
</tr>
<tr>
<td>Apr-08</td>
<td>0.205</td>
<td>0.014</td>
<td>0.191</td>
</tr>
<tr>
<td>May-08</td>
<td>0.209</td>
<td>0.014</td>
<td>0.195</td>
</tr>
<tr>
<td>Jun-08</td>
<td>0.218</td>
<td>0.011</td>
<td>0.207</td>
</tr>
<tr>
<td>Jul-08</td>
<td>0.239</td>
<td>0.018</td>
<td>0.221</td>
</tr>
<tr>
<td>Aug-08</td>
<td>0.289</td>
<td>0.025</td>
<td>0.264</td>
</tr>
<tr>
<td>Sep-08</td>
<td>0.296</td>
<td>0.024</td>
<td>0.271</td>
</tr>
<tr>
<td>Oct-08</td>
<td>0.309</td>
<td>0.029</td>
<td>0.280</td>
</tr>
<tr>
<td>Nov-08</td>
<td>0.307</td>
<td>0.028</td>
<td>0.279</td>
</tr>
<tr>
<td>Dec-08</td>
<td>0.318</td>
<td>0.035</td>
<td>0.283</td>
</tr>
</tbody>
</table>
Changes to clothing in 2009

>> Major changes to many aspects of CPI in 2009 as part of reweighting and overhaul

>> Change in clothing is to move away from many narrow products to few broadly defined categories
## Changes to clothing in 2009

<table>
<thead>
<tr>
<th>Old description</th>
<th>New description</th>
</tr>
</thead>
<tbody>
<tr>
<td>'BLOUSE - SUMMER - SHORT SLEEVE/SLEEVELESS - Made from SYNTHETIC FABRIC</td>
<td>Blouse</td>
</tr>
<tr>
<td>'TROUSERS - SUMMER - Made from NATURAL FABRIC</td>
<td>Trousers (excl jeans) - business</td>
</tr>
<tr>
<td>'CARDIGAN - WINTER - LONG SLEEVE</td>
<td>Knitwear</td>
</tr>
</tbody>
</table>

It is responsibility of price collector to identify most popular item in particular store.
Thank you