

Using SQL Queries

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Abstract

This report analyses price changes due to inflation in South Africa and proposes a new index - the braaibrodje index.

Keywords: CPI, Braai, Inflation

1. Introduction

Using a novel approach with the braaibrodje index, this report aims to visualize the impact of inflation. Two data sets are used for the analysis and the results for the indices are compared. Further, general summary statistics and price development in general over time are part of the report.

2. Data

Two data sets were provided. One on retailer prices. The other one contains data from StatsSA. Note that the StatsSA data set was adjusted such that the two data sets cover the same periods.

3. Analysis

3.1. A Braaibrodje index

Given the two data sets provided, two different braaibrodjies indices are calculated and plotted separately for the two different data sets.

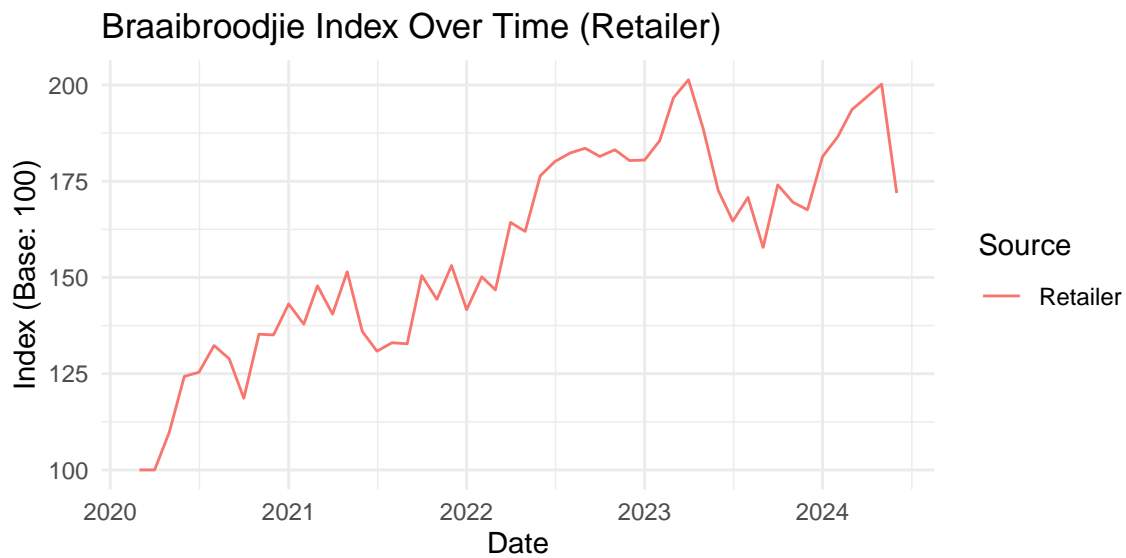


Figure 3.1: Braaibroodjie Index Stats SA Retailer

Already in this graph, we can see, that the prices have been increasing significantly over the past years. In a next step, we will have a look at the index over time from the other data set.

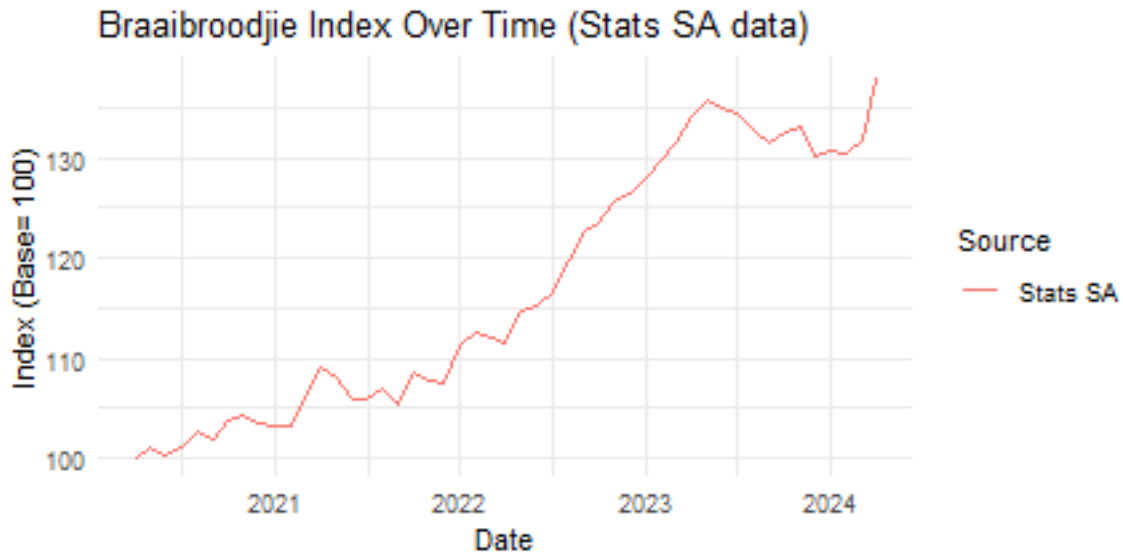


Figure 3.2: Braaibroodjie Index Stats SA

As one can clearly see in both graphs, prices have increased in the past three years. As the braaibroodjie index from the Retailer data shows clearly a larger increase in prices, it might be the case that the data from StatsSA is underestimating the true inflation. Nevertheless, no quantities were given to

which the prices relate in the StatsSA data, which leaves us with speculation whether we can assume that the prices relate to the same quantities.

To have a closer look into general summary statistics of the data set, please continue with the next section. ## B - Summary Statistics and comparison of the data First, this report compares mean prices of the different ingredients for Braaibroodjie to check whether the data sets have similar price observations.

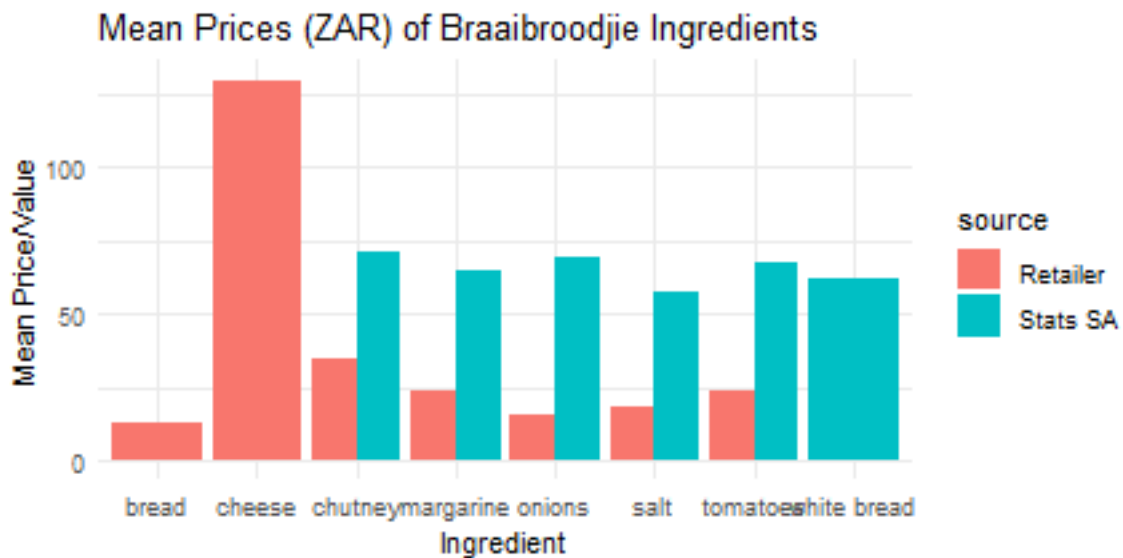


Figure 3.3: Summary Statistics

Again, one can see that the Stats SA and the Retailer data sets use different prices. One wonders whether this is due to different quantities, they are referring to or whether there are other reasons for the difference in prices.

Finally, this report looks at the price development of tomatoes over the past three years in the two different data sets.

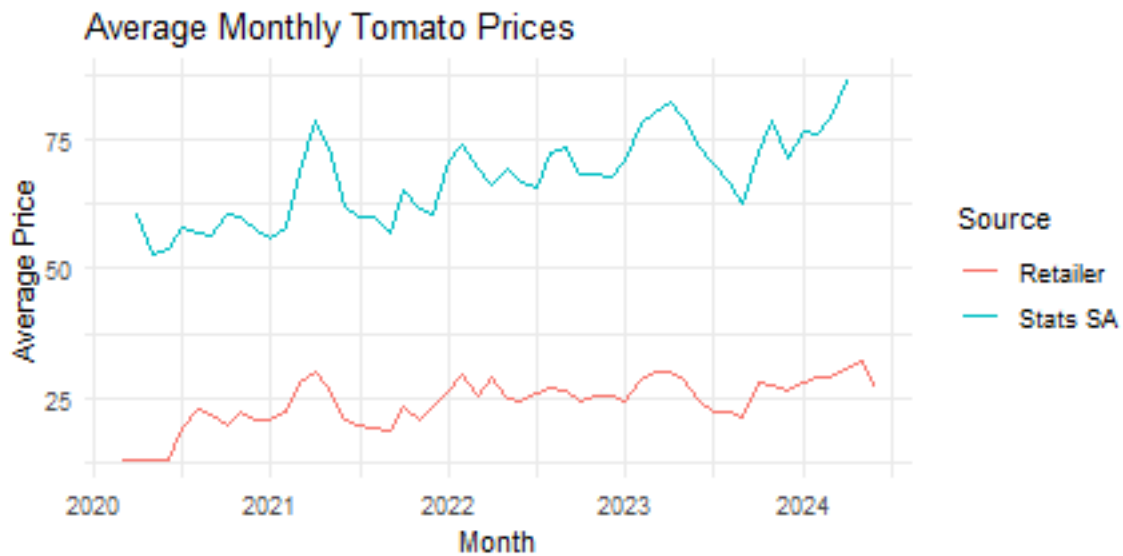


Figure 3.4: Tomato Prices over Time

Tomato prices have been increasing in both data sets which is also in line with the increasing braaibrodjies index in both data sets.

Based on other estimates, annual consumer price inflation was 5,2% in April 2024, down from the 5,3% in March 2024. The consumer price index increased by 0,3% in April 2024.

4. Conclusion

The braaibrodjie index provides a hands on understandable, especially for the South African context, index for inflation. It is similar to the big mac index that has been used for several years now. However, for the South Africa, a braaibrodjie index seems more fitting. In the graphs provided, one could clearly see the inflation patterns and price increases which were visible in both data sets based on the novel index.