

COVID-19: Implications for data collection

Economics | South Africa

How the COVID-19 pandemic impacts economic data collection – inflation as example

- Statistics South Africa will release consumer inflation statistics for April 2020 on 24 June 2020. Usually consumer inflation numbers for a particular month are released on the third Wednesday after that month has been concluded. The current delay is another example of the impact of COVID-19, this time on the collection of economic statistics.
- According to the agency the three main data collection challenges encountered since 27 March 2020 when the country entered lockdown have been: the prohibition of the sale of certain goods and services due to government regulations (for example air travel and restaurants), the limited number of open outlets and the fact that data collectors were prevented from collecting prices because of travel restrictions.
- The challenges the agency faced meant that many prices were unavailable and would therefore need to be imputed. Three methods to impute prices will be used for the April CPI numbers. These are: the overall mean method, targeted imputation, carrying forward and using the change in the overall headline index to impute prices. Explanations of these methods and the items in the inflation basket that will be imputed according to the different methods are in table one below. 25% of the weight of the inflation basket will be imputed using the change in the headline index, 41.3% of the weight will be carried forward (the March index will be used to impute the April index), targeted and overall mean imputation will be used for 1.3% of the basket and prices for the rest of the basket will be obtained directly or online. Goods with a weight of 20% of the basket are collected online and 12% are collected directly.

Table 1: Price imputation for April 2020

IMPUTATION METHOD				
	Overall mean	Targeted imputation	Carry forward	Change in headline index
Definition	Imputing the price by using the change in the index one level of aggregation higher than the one for which there are no prices. For example if there are no prices for rice in a certain region, then you use the change in the price of rice nationally to impute the regional rice price.	Identifying a specific item to impute the price of another item. For example if you do not have the price of brown bread, you use the price of white bread that you do have to impute the price.	The previous months index level is used again in the current month.	This is where the headline index is calculated using only those products where prices are available. The change from the comparable index in the previous month is then applied to all indices without prices and the headline index is then recalculated.
Goods		<ul style="list-style-type: none"> *Diesel *Hairpieces *Watches *Bags *Prams 	<ul style="list-style-type: none"> *Actual and imputed rentals *Maintenance and repair services *Water supply, electricity and municipal assessment rates *Sectional title levies *Domestic worker wages *Private sector health services *Vehicle registration fees *Toll fees *Drivers' licences *Taxi fares *Post box rental *Education *University boarding fees *Crèche fees *Insurance policies (except funeral policies) 	<ul style="list-style-type: none"> *Alcohol and tobacco *Clothing and footwear *Housing maintenance and repair materials *Household contents (except for batteries, lightbulbs, cleaning materials and domestic worker wages) *Transport (except for fuel and those items not surveyed in April) *Cell phone instrument and courier services *Recreation and culture (except pet food, television licence, DSTV subscription, lotto ticket, and stationery items) *Restaurants and hotels (except university boarding fees)
Weight of basket		1.30%	41.30%	25%

Source: Statistics South Africa

- Prices of items in the CPI basket were collected from the online arms of retail chains at the end of March. According to Statistics South Africa, these will be used to form the base of comparison with the April prices. Online prices will also be collected in May to compare to April observations. The agency is collecting prices of food, health, household cleaning and personal care items weekly and all other items will be collected once a month.
- The benefit of in-store price collection is that regional and store specific price decisions are factored into the national numbers, while online prices are nationally uniform. Practically, this means that for April national prices will be applied to regional CPI indices and that any changes in inflation rates between provinces will only be the result of weights and not prices.
- Statistics South Africa says that they do not foresee any subsequent CPI release delays and will announce future publication dates in due course.

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