**THE EFFECTS OF CHANGING CURRENCY ON THE ZIMBABWE CONSUMER** **PRICE INDEX (CPI)**

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**ABSTRACT**

The government of Zimbabwe introduced the bond coins as far as 2014 which were considered to be used as coins which were regarded as one as to one in terms of exchange rate with the US dollar. In Zimbabwe by that time there were no US dollar coins circulating except US dollar notes only. For a period of two and half years after the introduction of bond coins, prices remain stable and the government gained confidence in the bond coins. In 2016 the Central Bank introduced the bond notes as incentives for exporting companies. They were pegged at one as to one with the United States dollar. The Reserve Bank of Zimbabwe introduced more bond notes into circulation as from that time.

It was during that time in 2016 that a small premium started to accumulate against the United States Dollar in the last quarter of the year. In some cases one United States dollar was equivalent to one and eighty cents bond notes. Prices Started to rise up gradually in most outlets as retailers were getting their commodities from wholesalers and manufacturers who were importing those commodities and would need the United Stated dollar to get the raw materials for production. The Reserve Bank of Zimbabwe continue to inject more bond notes into circulation and more of the printed bond notes were injected into the black market by businesses and companies that traded the bond notes in exchange of the United States dollar. This was caused by the fact that there was limited foreign currency in Zimbabwe for importing companies.

The demand of the United States dollar increased as more companies moved into the streets/black market in search of the United States dollar, this then caused the premium to rise and that in turn caused the prices in the outlets to rise also. The premium continued to rise up to February 2019 when it was close to 4, that is, one United States dollar was equivalent to 4 bond notes. The Reserve Bank of Zimbabwe kept on saying the official exchange rate between the United States dollar and the bond note was one as to one .The prices also increased accordingly and the Consumer Price Index and the year on year rate of inflation increased to alarming figures by February 2019.

The Government quickly moved to introduce the interbank rate in mid-February 2019 and introduced the RTGS dollar as the Zimbabwean currency which was equivalent to the bond note. From that time there was an interbank rate between United States dollar and the RTGS dollar and sometimes the interbank rate would be lower than the black market rate or vice versa. The introduction of the interbank rate also increased the prices of commodities and the CPI and the rate of inflation kept on increasing to alarming rates. In June 2019 the Government announced the suspension of the publication of year on year inflation rates and argued that prices in 2018 were in US dollars and prices from February 2019 onwards were in RTGS dollars so the two cannot be compared.

The users of CPI figures like banks were of the belief that the calculation of the Consumer Price Index was not according to international standard because the CPI and the rate of year on year inflation kept on increasing at a slower rate than what they thought should be. The other users like researchers accused the Zimbabwe National Statistics Agency of suppressing the CPI and the rate of inflation figures and also being controlled by government and these include Professor Hanke from the United States of America and others. This was so because the consumers bought goods and services from the retailers where they were charged five different prices for a commodity or service, that is, cash in RTGS dollars, cash in US dollars, bank transfer, buying using card/credit card and using mobile cell phones. So ZIMSTAT was accused by the two groups of not reporting the correct figures. The general public believed that the CPI numbers were way below the actual numbers on the ground. The Reserve Bank of Zimbabwe kept on saying the exchange rate between the United States dollar and the bond note was one as to one. Prices of commodities kept on increasing following the parallel market exchange rate.

IMF Prices mission was called to relook at the methodology used by ZIMSTAT in compiling the CPI and the rate of inflation. The African Development Bank was also interested in the mission and wanted to partner IMF to look at the methodology being used by ZIMSTAT. So ZIMSTAT was caught up in trying to satisfy the users of the official statistics and the general public including businesses, companies and development partners as well as to compute the index according to international standards and guidelines. The details of the procedures taken by Prices Statistics Department in calculating the index during the said period and the IMF mission report which said ZIMSTAT was a sound compiler of CPI in Africa will be given in this detailed paper.

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# **1. Pricing system during multiple currency in Zimbabwe**

There were five pricing system which operated and are still operating in Zimbabwe from 2009 to date. These were US dollar cash, bond notes and coins, the use of mobile phones, the use of bank cards and bank transfer. From 2009 to around mid-2016, US dollar cash, bond notes and coins and bank transfer were being used with the first two methods being frequently used. From mid-2016, the use of mobile phones and use of bank cards in purchasing became more frequent than the use of cash.

## **1.1. Multi-currency period**

Multi-currency period in Zimbabwe started in February 2009 after the Government of Zimbabwe introduced a basket of multiple currencies with the United States dollar as the official currency. The period started in February 2009 and ended in February 2019. Before it officially ended in February 2019, the Zimbabwe Government introduced the bond coins as far as mid 2014 which were said to be used as US dollar coins and also as changes in outlets when customers bought goods. In mid-2016, the government of Zimbabwe introduced bond notes which were said to be incentives for exporting companies and the Government argued that it was equivalent to US dollar in term of exchange rate. From mid-2016 the bond note started to accumulate a premium against the United States dollar and the premium kept on increasing on the parallel market whilst officially it was said to be one as to one with the United States dollar. By mid-February 2019 it was almost 1: 4 with the United States dollar.

## **1.2. Availability of cash in Zimbabwe**

Around the mid of 2014, US dollar cash started showing signs of become scarce in Zimbabwe. The Government introduced bond coins to supplement the existing US dollar cash which was circulating. The effects on price levels were very insignificant and majority of retailers were not affected by the introduction of bond coins although a premium was there but keeps on rising and falling as can be shown by the graph below showing the trend of the CPI during that period.

Fig 1: CPI indices from January to December 2014

Source: ZIMSTAT

In the mid of 2016 again the Government introduced more bond notes into circulation. This shows that cash in circulation was becoming a challenge. Also the Government started paying salaries for its civil servants a date which was in the second month. All the above shows that the availability of cash in Zimbabwe was now a challenge starting in 2014 onwards and even upto date. The CPI increased just the month the bond notes were to be introduced that is, in June 2016 and from there prices stabilized again and started rising from September to December 2016. Majority of people had still the US dollars in their pockets. The premium between the US dollar and the bond notes started to increase as from September to December 2016. (See fig 2 below)

Retail outlets started gradually to increase the prices of items in respond to the parallel exchange rate between the US dollar and the bond note. Most of retail outlets would purchase their stocks outside the country. Majority of small retail outlets started demanding cash up front for their items and would take the cash to purchase the US dollar on the parallel market. This would then force the prices of items to increase since the exchange rate between the US dollar and the bond note kept on increasing. The following graph shows the CPI trend during 2016.

Fig 2: CPI Indices from January to December 2016

Source: ZIMSTAT

From the year 2014 to end of 2016, the premium was very little hence the CPI increased gradually between 2014 and 2016.This was partly because majority of consumers and retailers had confidence in the bond notes and coins and also because majority of consumers had still US dollars in their pockets and could use it to buy in retail outlets hence prices gradually increased and decreased since majority of transactions were paid in US dollars.

In 2017, majority of Zimbabweans had few US dollars in their pockets, hence the premium between the US dollars and the bond notes kept on increasing and hence the prices also kept on increasing as can be seen by the graph below. Since there was limited bond notes from the banks and no US dollars issued by banks, there was a high demand of cash by consumers and retailers in Zimbabwe. This led to the beginning of parallel exchange rates in the street. Those individuals or retailers who still have the US dollars in their pockets would buy the bond notes on the street. Most companies in search of US dollars would move into the streets with the plastic local money or bond notes and coins in exchange for US dollars.

The companies which needed more US dollars would increase the rate to buy the US dollars and that would also in turn increases the prices of items in the shops. This then led to fewer cash in circulations as more companies kept the bond cash in their premises to buy US dollars on the parallel market. The following graph shows the CPI figures during the 2017 period.

Fig 3: CPI Indices from January to December 2017

Source: ZIMSTAT

The situation kept on worsening in 2018 as can be shown by the CPI graph below. The US dollar kept on being mopped out by importing retailers and companies. The prices of commodities in bond notes kept on rising. The exchange rate between the US dollar and the bond note kept on increasing in 2018.

Fig 4: CPI Indices from January to December 2018

Source: ZIMSTAT

## **1.3. The five pricing system during the multi-currency period**

During the multi-currency period, there were five different pricing system namely, bond notes (cash), the use of bank cards, the use of US dollar cash, bank transfer and the use of mobile phones. Retailers would have five different prices for one item. This was so because of limited availability of cash.

### **1.3.1. Bond notes and coins**

Bond notes and coins were accepted by retailers second to US dollars more than the other three system. This was so because the retailers would then use the cash to buy US dollars on the parallel market. Most of the retailers would prefer cash more than the other three methods and would charge lower prices in cash than the other three methods. If customers choose to buy in cash, it was cheaper than the other three methods of payment. This would happen in neighbourhood shops and usually bigger shops like supermarkets would have one price whether the customer is buying using any of the five methods. The other three method would accumulate a premium in the neighbourhood shops.

Most of workers in Zimbabwe got their salaries deposited in their bank accounts. Most of the banks did not have enough cash to give to its customers. Hence in order for the people to have the cash, they would purchase the bond notes in the parallel market using the plastic money and would pay more since the exchange rates were not one as to one. Although commodities purchased in bond notes in the neighbourhood shops would be cheaper but it cost more for the customers since they would have to first convert the plastic money into cash on the parallel market. The following graph shows the exchange rates between the United States dollar and the bond note from January 2018 to February 2019.

Fig 5: Exchange rates between the US dollar and the bond note on the parallel market

Source: World Bank

Fig 4 and 5 shows the same trend, meaning that the parallel exchange rates affected the pricing system in retail outlets in Zimbabwe and hence affected the CPI.

### **1.3.2. The United States dollar cash**

Most of the retailers would prefer customers who buys using US dollars although they were fewer and fewer as we move closer to 2018 and 2019. If consumers opt to buy using the United States dollars, the prices were very cheap. This was because retail outlets would do so to attract customers with the US dollars. Even though very few consumers would part away with their US dollars in that way. Majority would convert the US dollars into bond notes and coins or plastic money and then use that to transact. Although the prices in the United States dollars were very cheap, it was not cheap to the ordinary consumers in Zimbabwe. They would first convert the plastic money into bond notes or coins and would be charged a fee for that, and then convert the bond notes into US dollars cash and again charged a fee. All these conversions would take place on the parallel market. Hence at the end the consumer would have lost a lot of his or her plastic money through charges. As can be seen in the above fig 5, for one to have one US dollar, he or she has to part away with a lot of bond notes as the exchange rates kept on increasing.

### **1.3.3. Use of Bank Cards**

Majority of workers who were formally employed would get their remuneration deposited into their bank accounts. These consumers would normally use the plastic money to transact on everyday life. Outlets which allow the use of bank cards had their prices marked up to include a premium to fetch the US dollar on the parallel market. Most of the outlets would charge higher prices if a customer would want to buy using a bank card.

### **1.3.4. Bank transfers**

Few outlets would accept bank transfers since the transaction would take time to reflect in the retail outlet’s account.Those outlets who will have accepted the bank transfers would charge more than the cash or swipe using a bank card on their products.

### **1.3.5. Use of Mobile phones**

Majority of retail outlets would accept the purchase of their products using mobile phones. Those who accept would charge even more on their goods since they would have to use the money to purchase the US dollar on the parallel market. The cash price, bank transfer price, mobile phones price, US dollar price and bank cards prices were totally different. The cheapest was the US dollar price although very few would use it, and the most expensive were use of bank cards and use of mobile phones.

## **1.4. The effects of the multiple pricing system on the consumers**

The five pricing systems in Zimbabwe proved to be costly for most of the people in Zimbabwe. Majority of the workers received their salaries through banks and would convert at their own costs to either cash bond notes or US dollar cash if they would purchase using the cash or would simply purchase using bank cards and the prices were normally higher than cash prices in most shops.

Since the exchange rate between the US dollar and bond note kept on increasing on the parallel markets, prices of commodities kept on increasing. The purchasing power of incomes of the consumers were eroded by the exchange rate as well as prices which kept on increasing.

# **2. Computation of the CPI by ZIMSTAT during 2009 to 2019**

# This involves the treatment of multiple currencies, in the computation of the CPI during the period and also rebasing in 2013 and 2019.

## **2.1. Treatment of multiple currencies prices during the period from 2009 to 2019**

Since the beginning of 2009, Zimbabwe introduced a basket of multi-currencies with the United States dollar as the official currency. From that period, ZIMSTAT would convert prices denominated in any other currencies using local prevailing exchange rates on the particular day of data collection into the United States dollars. Hence the index computed was based on the US dollar prices. This was done from 2009 until February 2019.

## **2.2. Rebasing in 2013**

According to international standard, CPI weights have to be updated at least after every five year after carrying out the Household Budget Survey. In 2011/12, ZIMSTAT carried out the 12 month PICES survey and the results were used to update the CPI weights. Starting January 2013, ZIMSTAT was producing a CPI with new weights based on the 2011/12 PICES and the index reference period was December 2012 =100.

## **2.3. Treatment of multi-currency prices during 2014 up to February 2019**

The bond coins were introduced in 2014 and did not really affect prices since commodities in outlets shops were priced in US dollars. In 2016 the Reserve bank of Zimbabwe introduced bond notes and a premium against the US dollar started to accumulate. Again all the items priced in other foreign currencies were converted into the US dollar prices using the local prevailing exchange rates. Again most of the commodities were priced in US dollars in outlets but being paid either in bond notes or coins or plastic money or the US dollar since the government had pegged a fixed exchange rate of one as to one. From mid of 2016 most of the items were paid in bond notes by customers although marked in US dollars. This was caused by the scarcity of the US dollar and also most of the employers paid their employees in plastic money.

## **2.4. Rebasing in March 2019**

In March 2019, ZIMSTAT revised again CPI weight using the 2017 PICES results and February 2019 = 100 was the index reference period. The Government of Zimbabwe introduced the RTGS$ as the official currency in Zimbabwe replacing the US dollar. From February 2019 when it was announced, an interbank rate between the US dollar and the RTGS$, was established.

ZIMSTAT started converting all US dollar prices into RTGS$ using the local prevailing exchange rates.

## **2.5. IMF Mission report**

The mission determined that the CPI procedures, processes and practice were of a high standard and that ZIMSTAT’s conversion to the RTGS using parallel exchange rates is appropriate. Where necessary, the conversion of prices into RTGS was undertaken at the point of collection using relevant local parallel market rates. The conversion rate echoes what is happening to the typical consumer, where parallel markets are more relevant than inter-bank rates. This allows ZIMSTAT to measure inflation effectively and is in line with international good practice and the requirements of the System of National Accounts. **(This was extracted from the IMF CPI Mission report on Zimbabwe).**

# **3. Users’ Needs**

From the current situation in Zimbabwe, the general public and academic researchers want a CPI which measures the cost of living when consumers are buying using plastic money, that is, when buying goods and services using bank cards, using mobile phones and using bank transfers. They insisted that the current CPI does not actually measure the real expenditure incurred by consumers since very few can use cash to actually purchase goods and services.

ZIMSTAT, like all other National Statistical Offices in the World, maintain a time table for data collection every month. When certain commodities suddenly rises in prices after data collection period, users normally wants that to be captured in the current month CPI.

## **3.1. Challenges in meeting user’ needs**

There is a need to have a sample of outlets which only transact in bank transfers, or which transact using bank cards only or which transact using mobile phone only. If identified, would the sample be represented enough for a national CPI? Majority of the outlets currently sell goods and services using all the five methods. Also in terms of resources, would the current resources be adequate to produce six CPIs?

Again, if ZIMSTAT is to capture the price of only one or two items outside its data collection period, would that not be a violation of the international standards? The current procedure was to capture the price of such a commodity during the next data collection period.

# **4. Users’ relations with ZIMSTAT**

ZIMSTAT has a good relations with users within Government and some development partners, but faces some challenges with users which are outside Government.

**5. Communication with users**

All communications with users are done by emails, hard copies and via twitter. User/Producer workshops are held now and then where by, sharing of methodology, basket and time table of data collection are done. The main users which are Reserve Bank of Zimbabwe and Ministry of Finance and Economic Development have always been given the above documents including some development partners and academia.

## **5.1. Challenges faced in Communicating with Users**

Most of the public users do not understand the CPI and how it is measured. Some users do not have emails. ZIMSTAT does not have the funds to educate all the public about the index and how it is measured yet the public can quickly move to criticize any numbers released by the agency.

# **6. Reaction of the general public users in Zimbabwe**

The general public users of CPI figures accused the ZIMSTAT of not producing the correct figures according to what they think are the right figures. When the CPI figures are released, independent compilers publishes their own numbers in independent papers.

Some users tend to trust estimates published by IMF and World Bank more than the actual figures published by ZIMSTAT.