

## AN ANALYSIS OF HYPERINFLATION IN ZIMBABWE

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### ABSTRACT

This paper carries out an in depth analysis of the severe hyperinflation crisis in Zimbabwe: reasons for the onset of the crisis, present state of affairs in the country and finally, the road ahead. The major political and economic reasons leading to hyperinflation have been discussed: gradually growing fiscal deficit ascribed mainly to unbudgeted government expenditure, political unrest, participation in wars, and heedless land redistribution reforms. Further, we have examined the effect of hyperinflation on Zimbabwe's economic institutions and markets, conceived as a rapid increase in price levels of commodities and depreciation of local currency. As a result of hyperinflation, the society has encountered growing unemployment, increased emigration and decreased life expectancy. We hence analyze various policy and structural changes that have been made by the government and the merits and demerits of the latter. Considering the lackadaisical attitude of Reserve Bank of Zimbabwe and the ever growing black market, a complete change in the monetary system for Zimbabwe has been suggested. The benefits of dollarization and how it has enriched the economy, bringing about a large improvement in GDP and growing stability in prices has been discussed in detail. However, long term improvement can only be addressed by stringent policy changes directed at tackling flaws in the political and economic system like lack of infrastructure, corruption, black markets and much more.

**KEYWORDS:** Hyperinflation; Zimbabwe; Fiscal Deficit; Dollarization

### DEFINING INFLATION

The term 'Inflation' does not seem to have a standard definition, it can be defined in various ways. In simple terms, inflation can be understood as a situation in which general goods and commodities become more expensive to buy.

As defined by M. Bronfenbrenner and F.D. Holzmann, (1963, p.599), "Inflation is a condition of generalized excess demand, in which too much money chases too few goods". Quoting Friedman (1970b, p.24), whose definition of inflation focusses on the role of money supply as a cause, "Inflation is always and everywhere a monetary phenomenon...and can be produced only by a more rapid increase in the quantity of money than in output". Inflation can occur in two ways: Firstly, as a general rise in the prices of commodities, and secondly, as depreciation of the currency, which can result under various economic circumstances. Hence, each unit of currency buys lesser units of goods and services.<sup>13</sup> (While calculation of the same, an important point to note is that a weighted average of a large number of commodities is used rather than specific good and services)

The main indicator for calculating price inflation is the inflation rate, which is the annualized percentage change in a general price index, usually the consumer price index, over time. The criterion for inflation remains subjective, depending on the sensitivity of economic agents to inflation.<sup>13</sup>

## INTRODUCTION TO HYPERINFLATION

The most widely used definition of hyperinflation is given by Cagan who wrote in 1956 that “I shall define hyperinflation as beginning in the month the rise in prices exceeds 50 percent and as ending in the month before the monthly rise in prices drops below that amount and stays below for at least a year”.<sup>5</sup> According to Pearce (1981), it can be safely concluded that in hyperinflation, the prices are rising at least at a rate of 1000% percent per month.<sup>22</sup>

## GENERAL REASONS FOR HYPERINFLATION

Majorly, hyperinflation starts due an unchecked and rapid increase in money supply in the economy which may be attributed to supply shocks triggered by various social, political and economic reasons like wars, economic depression, and rapid increase in money supply.<sup>19</sup> A rapid depreciation of currency due to several other economic factors can also result in hyperinflation.

Another perspective on the matter given by Bomberger and Makinen (1983) on the hyperinflation situation in Hungary is that it occurs when the government cannot levy enough taxes.<sup>3</sup> This will lead to a large budget deficit, increased printing of money and consequently inflation. Capie (1986) stated that a combination of weak governments, civil disorder and unrest leads to a loss of fiscal discipline and consequently, hyperinflation.<sup>19, 6</sup> As explained by A. Makochekanwa (2007), the general reasons for hyperinflation have been quoted in literature to be rash money printing, foreign currency shortage and inflation due to increase in demand and import costs.<sup>19</sup>

In the long run, political rights too seem to have an influence on general price levels and inflation. It is thus of primary importance for the government to manage internal relations, internal governance and restoration of basic human rights to stabilize the economy.<sup>19</sup>

If the government exercises complete control over the Central Bank, which lacks autonomy, misuse of power by authorities to govern money supply can easily lead to maladministration of the economy and hence hyperinflation.

## THE CASE OF ZIMBABWE

What happened in Zimbabwe was a result of gradually increasing public debt and growing fiscal deficit. The political and economic situation in Zimbabwe had since long been indicating the onset of high inflation in the country and thus, hyperinflation.

In the year 1997, a series of protests were held in the country by the war veterans of the 1970 Independence War to put forward their demands for compensation. After long protests, President Robert Mugabe agreed to pay hefty gratuities to them. The expenditure, amounting to nearly 3% of the GDP was unbudgeted and was said to be the beginning of the economic collapse of Zimbabwe, with the currency losing falling substantially in value almost immediately after this step was taken.<sup>8</sup> An attempt to cover up this unsolicited expenditure was made by increasing taxes, which too went in vain. Protests by trade unions forced the government to print additional money to cover up for the extra expenditure, hence worsening the situation.<sup>17, 8</sup>

However, the problem did not end there. The war veterans expressed further discontent to which president Mugabe responded in November 1997 by introducing a careless land reforms program. All commercial farming land was taken from the largely white community of commercial farmers and redistributed to the landless black majority.<sup>8</sup> Since

white people were actually the largest employers and also expertise, the land relocation resulted in unemployment and fall in output by nearly 50 percent between 2000 and 2009. This was due to large diminishment of the country's foreign exchange cash crop, tobacco. Additionally, the annual wheat production which was once standing at 300,000 tons in 1990 plunged to 50,000 in 2007.<sup>17</sup>



**Figure 1**

(Source: World Bank's World Development Indicator Database)

Zimbabwe also faced five major droughts between 1999 and 2008 during the hyperinflation.<sup>20</sup> These Droughts had a large negative effect on growth of the country and henceforth the agriculture industry collapsed completely. Once a net exporter of food, the country became a complete importer. GDP per capita fell significantly from \$707 in 1997 to \$327 in 2008. Figure 1 shows the variation of GDP per capita during hyperinflation, illustrating how the nation's wealth eroded by almost 50% in a span of roughly 10 years. (1997-2008)

Moreover, the government, being involved in the Second Congo Civil War, spent a significant chunk of its GNP on the war and underreported the exact spending figures to IMF.<sup>17</sup> The government was not prepared with surplus to finance the war and had no policies in mind on how to meet the costs of the war.<sup>21</sup>

At the time when growth of hyperinflation was on an increasing trend, the Zimbabwean government was not able (or willing) to produce economic data. According to sources (Reserve Bank of Zimbabwe 2008a), the Reserve Bank balance sheet and money supply data were available only till the month of March, 2008. Data for inflation till July 2008 too was made available only by October, 2008.<sup>14</sup> (Reserve Bank of Zimbabwe 2008b)

The missing information about the inflation after July, 2008 can be obtained using the definition of purchasing power parity. Two countries are said to be in purchasing power parity when the ratio of general price levels in the country is equal to the exchange rate of their currency.<sup>1</sup> Ignoring the changes in price level in US and combining it with the fact that PPP assumption is valid in hyperinflation situation (Frenkels Empirical Work (1976))<sup>11</sup>, the inflation figures for Zimbabwe can be calculated if we know the exchange rate of Zimbabwe dollar and US dollar.<sup>14</sup>

As we can observe from Figure 2, the growth of GDP has been largely negative since the 1990s. Hyperinflation peaked in mid-November 2008 leading to spontaneous dollarization. Improvement was observed after 2009, when some control was exercised over the economic situation.

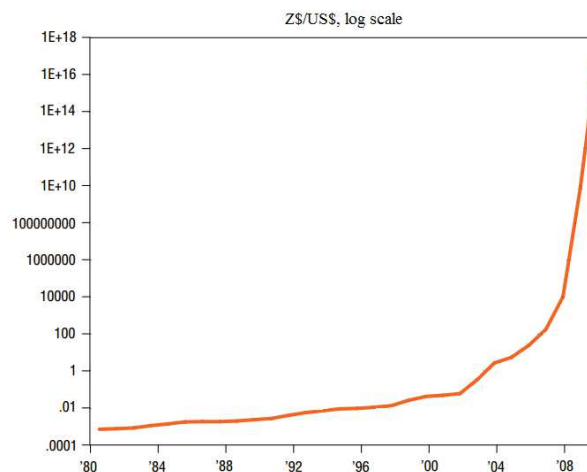


**Figure 2**

(Source: World Bank's World Development Indicator Database)

## EFFECTS OF HYPERINFLATION ON THE ECONOMY

The hyperinflation episode started in 1999 and grew so rapidly that by the summers of 2007, the inflation rate was estimated to be around 109,000%. Figure 3 shows the depreciation of the Zimbabwe dollar over time. It is to be noted that the exchange rate is plotted in logarithmic scale, giving an idea about how intense the rise in exchange rate became.



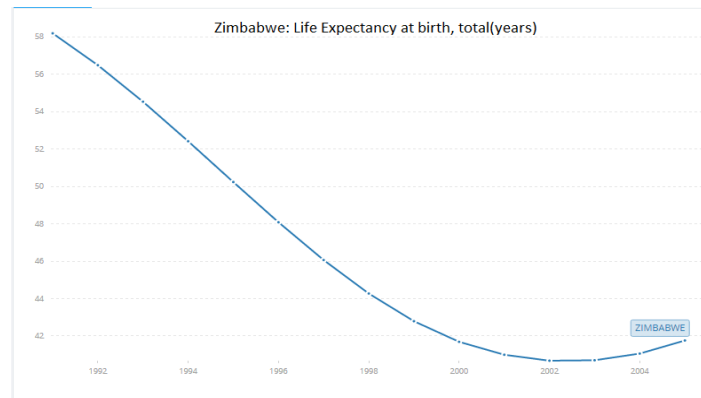
**Figure 3**

(Source: Alan Heston, Robert Summers and Bettina Aten, Penn World Table Version 7.0, Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania, May 2011)

The situation deteriorated so much that the Zimbabwe dollar actually had to be given an expiry date.<sup>16</sup> By 2008, the inflation rate had reached a whopping 11.2 million%, hence practically costing the government more to print the money than what the money was actually worth. Moreover, the government printed yet more money to overcome this expenditure. The economic troubles became so profound that by 2008, they wiped out the wealth of citizens and set the country back more than a half century.<sup>17</sup>

Zimbabwe's real GDP contracted most of the time after 2000 (Figure 2). (Source: World Bank's World Development Indicator Database). Unemployment became widely prevalent, becoming as high as 80% at some points of

time. The labor force of Zimbabwe rapidly started migrating to neighboring countries, causing emigration rates to increase from 6% in 2005 to 9.9% in 2010. (World Bank 2008 and 2011) This led to a reduction in the tax base, making the situation even worse.<sup>17</sup> Also, since a large chunk of people were dependent on food aid, life expectancy also dropped heavily till 2002, though it was controlled later. (Figure 4). With all the above challenges, Zimbabwe became even more vulnerable to soaring inflation rates.



**Figure 4**

(Source: World Bank's World Development Indicator Database)

In any economy, the Central Bank plays the supreme role in sustaining it. However, in the case of Zimbabwe, it failed to do so. In spite of a huge increase in the staff at Reserve Bank of Zimbabwe, they failed to provide complete and accurate data, and necessary and required changes in fiscal and monetary policies too, were not brought about.<sup>15</sup>

The cumulative effect of this situation was that the difference between the official fixed exchange rates and the existing black market exchange rates (Foreign Exchange Black Market premium) shot up, indicating the reluctance of people to use the local currency.<sup>19</sup> The population base started losing faith in the Zimbabwean dollar and shifting towards safer foreign currencies like the US dollar and rand.<sup>19</sup>

## HOW TO COUNTER HYPERINFLATION

Since the basis of hyperinflation is believed to be uncontrolled money supply in the economy, the simplest solution to hyperinflation would be a reduction in money supply. This could be done mainly by printing less money and a reduction in fiscal deficit, effectuated by reducing government expenditure or increasing taxes.

Mainly, three important steps could be taken to curb hyperinflation. Firstly, the government could adopt a foreign currency as the mode of all transactions and abandon their own currency. This is also known as Dollarization. Secondly, backing of the local currency could be done by a foreign currency at fixed exchange rates. Thirdly, free banking could be brought about i.e. commercial banks could be allowed to issue their own currency with certain minimum government regularization.<sup>15</sup>

Dollarization itself can be divided into 3 categories - official, semi-official and unofficial.

In case of official dollarization, a foreign currency is established as the primary currency, while the local currency is kept secondary, allowing only small denominations. The primary currency has full legal liberty and the government and local transactions such as paying taxes are made using it. There are only small differences in prices between two regions

after dollarization and the two currency zones get unified as arbitrage keeps the prices, and hence the inflation rates more or less same for the two regions.<sup>15</sup> In a semi-official dollarization scenario, the affected nations have their own monetary policy. The foreign currency is made official, but it is secondary to the local currency. This type of dollarization is generally effectuated when the victim country has not degraded much and is just on the onset of hyperinflation. Unofficial dollarization is started without the knowledge of the government.

Zimbabwe was not in a position to implement semi-official dollarization. Hence, gradually, dollarization started unofficially wherein people started keeping reserves of foreign currency. The black market became extremely active and it thus became essential to switch to a completely new monetary system abandoning the Central Bank.

### **Currency Board**

Currency board is basically a monetary organization which has the authority to issue currency (i.e. notes and coins) in an economy. Much similar to the central bank system, commercial bank is creditors and exits.

The main difference between the reserve bank and currency board system is that the board has no role in deciding the monetary base. It cannot affect the equation between money and monetary base in an economy. However, the Central Bank is not bounded by such restrictions. It can determine the money supply by changing reserve ratios, altering repo rates, decreasing or increasing its monetary base, and even by imposing regulations on commercial banks. In the currency board system, market forces are majorly responsible for determining the money supply in the system. Since the currency board system can acquire foreign reserves, the money supply is responsive to change in demand, though it cannot create reserves for commercial banks in an inflationary manner.<sup>15</sup>

### **Free Banking**

Free banking is a system in which there is very little regularization on private commercial banks. They have their own jurisdiction over interest rates and currency used and faces restrictions only by contracts and market practices, rather than legislation and central banks.

In this type of banking, unlike regular banking, people have the option of choosing the type of notes along with deposits i.e. as banks offer different types of accounts in other banking systems, in the case of free banking, different banks can also use different currencies like Dollar, Rand, Pound, Euro.<sup>15</sup>

## **ZIMBABWE'S RESPONSE TO HYPERINFLATION**

By 2008, the hyperinflation in Zimbabwe became very intense. The average GDP per capita came to an all-time low since the past 53 years to US\$136 (at 2005 constant price).<sup>17</sup> The first attempt by the Zimbabwean government to curb inflation was to control the prices of basic commodities by forcing merchants to sell goods at regulated prices.<sup>17</sup> The Grain Marketing Board was monopolized in June, 2001 particularly to control the prices of wheat and maize. Gradually, the government started controlling the wholesale and retail prices of other commodities.<sup>8</sup> This eventually led to shortages in the markets and there were times when the supermarkets were out of stock completely. (IMF Staff Report, 2001)

Redenomination of the currency was done several times in 2006, 2008 and 2009. (Zeros were removed from the currency) Denominations as large as Z\$100 trillion were still used (making it the biggest note ever), ultimately, leading to introduction of the fourth Zimbabwean dollar (2009) making 1 trillion dollars equal to one new dollar.<sup>17</sup>

However, both these measures did not make much difference. The authorities finally officially established a multicurrency system in February 2009, wherein five foreign currencies were established as official and USD became one of the primary currencies in which government related transactions were allowed. The budget expenditure allocation of 2009 and 2010 was done in USD and the local currency was abolished till 2012.<sup>10</sup>

## THE EFFECT OF DOLLARIZATION

The multicurrency system promoted monetization of the economy and brought about discipline in the markets by financing the budget.<sup>10</sup> As a result, much improvement was seen in the economy. Real GDP growth rate grew from -14.4% in 2008 to 3.7% by the end of 2009 (Figure 2). Prices became stable and inflation dropped to single digit values between 2010 and 2012.<sup>24</sup> The cost of transactions to the government reduced significantly for business transactions with the US because of dollarization.

Zimbabwe was an agriculture based economy with around 80% of the population living as small farmers in rural areas. The agriculture sector hence, played a big role in the economy, it registered a growth rate of 17% between 2009-2012 and a gain of 24.3% in productivity.<sup>2</sup> The manufacturing, mining and quarrying sectors too contributed immensely to the growth in GDP.<sup>21, 23</sup>

Thus on a whole, dollarization turned out to be a success for the Zimbabwean economy, but it also posed a number of challenges. Initially, dollarization had an adverse effect on the business. The hyperinflation has shaken the confidence of people in the financial institutions of the country and people started keeping their foreign currency transactions outside the financial system.<sup>21</sup>

Import and export of Zimbabwe (mainly with South Africa) was heavily affected by the USD/Rand exchange rate. The movement of goods became difficult, thereby affecting Zimbabwe's competitiveness in the world. Another major disadvantage was the loss of seigniorage money, a big contributor to government revenues before dollarization.<sup>9</sup>

Politicians and senior bureaucrats of the country concerned dollarization as 'an undesirable erosion of sovereignty and monetary independence'. Dollarization and giving up the national currency also globally implied a sense of loss of sovereignty and pride.<sup>9, 8, 7</sup>

However, the economy gradually recovered and adjusted to dollarization. Banks were forced to adopt competitive and transparent practices, hence leading to stability in the banking system.<sup>21</sup> By the end of 2009, the total bank deposits increased by 750% from the December 2007 level.<sup>18</sup> The stable exchange rate, lack of monetization of budget deficit and absence of black markets compensated for the disadvantages of dollarization and lack of control over the monetary policy.<sup>23</sup>

## LOOKING TOWARDS THE FUTURE

Looking towards a long term solution, dollarization cannot address core problems in Zimbabwe like corruption, lack of infrastructure, political instability and huge internal and external debts. There is an urgent need for the government to bring about fundamental and credible reforms in the country on the political and judicial front to completely deal with the issue of inflation.

In a report published by the IMF in 2012, certain policy changes and reforms were suggested for further



improvement of the economic situation.<sup>9</sup>The need for better planning of the budget was identified, with emphasis on the control of expenditure. To contain financial sector vulnerabilities, banking supervision, boosting system liquidity and restructuring of the Bank was needed. Emphasis was also laid on the need to build an arrear clearance framework to address the issue of huge debt that the country was facing.

Zimbabwe also faces a bigger long term challenge, the challenge of fulfilling the expectations of its people. With people looking towards the government for better policy making, development of sustainable public finances and personal and national economic growth, the elected governments now have an important role to play in shaping the future of Zimbabwe and a better life for its citizens.<sup>9, 10</sup>

## CONCLUSIONS

The paper summarizes the social, political and economic situation in Zimbabwe, which over the years, developed into one of the worst hyperinflation episodes in the world causing a huge setback to the country's economy. The first major cause of hyperinflation was the unbudgeted payment of compensation to war veterans, amounting to nearly 3% of the GDP. Heedless redistribution of land further led to unemployment and loss of agricultural productivity. The hyperinflation became so severe that by 2008, the inflation rate reached a whopping 11.2 million percent. The Reserve Bank of Zimbabwe failed to bring about any major changes to fiscal and monetary policies. Consequently, the black market became extremely active. People started shifting to other forms of currency and initiation of unofficial dollarization took place. Various steps were taken by the government to curb the inflation:

Redenomination of the currency, a shift to the multicurrency system and then finally, complete dollarization. This brought huge improvements in the economy with the real GDP growth rate increasing from -14.4% in 2008 to 3.7% by the end of 2009. Unemployment reduced and inflation dropped to single digit values by 2012. However, dollarization also brought along its set of disadvantages. Lack of trust in the financial institutions of the country, decrease in exports and loss of seignior age are some of the problems the economy faced. But, the economy gradually recovered, bringing with it, stability to the country. The government now looks towards better budget planning, restructuring of banking in the country, and paying off the huge debt that the country bears. The bigger long term battle, however, would be fighting issues like blatant corruption plaguing the country, and living up to the expectations of its citizens of economic growth and development.

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