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Is Dollarization an answer to Economic Crisis: Evidence from Zimbabwe

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Abstract

This study seeks to establish the role of dollarization as a stabilisation policy in response to economic crises. Using an autoregressive distributed lag model, with data spanning the period 1980 through 2012, findings suggest that dollarization can be used as alternative monetary arrangement for economic stabilization. The results of the study indicate that the mean GDP per capita in the dollarized era is on a high side as compared to the non-dollarized period. More so, past growth contributes positively and significantly to growth in an economy and the contribution declines with space.

Key Words: Dollarization, Monetary arrangement, Exchange rate regime, Economic Growth, stabilization.

1. Introduction

The effect of dollarization on real macroeconomic variables such as employment, growth and inflation is debatable and inconclusive. Empirical evidence on this relationship does not support the assertion that an exchange rate regime is critical for economic growth (Eichengreen, 2001). However, advocates of dollarization argue that dollarization positively affect economic growth through two different channels: first, through lowering interest rate, promoting investments and ultimately economic growth (Dornbusch, 2001). Second, in terms of international trade, a common stable currency will eliminate currency risk thus promoting trade which will lead to economic growth. This argument is questionable as the endogeneity issue mulls its generalization.

Arguments against dollarization are based on the assertion that countries that are dollarized have difficulties in accommodating external shocks. This will have effects on economic fluctuations leading to lower economic growth (Parrado & Velasco, 2002, Broda, 2001). Dollarization has been much exercised in Latin American countries that include Ecuador and El Salvador among others. Ecuador, adopted the dollar as legal tender in 2000 and El Salvador in 2001 (Klein, 2005). A number of countries in Africa unofficially dollarized and these include

Somalia, Mozambique and Zambia. A spate of currency crisis in emerging market economies, namely Mexico (1994), Developing Asia (1997), Russia (1998) and Brazil (1999) convinced most observers that a fixed but adjustable peg was no longer a viable and sustainable regime for exchange rates and only corner solutions such as pure floating and hard pegs (currency unions or dollarization) could be sustainable (Levy-Yeyati & Sturzenegger, 2003).

At the outset, this study seeks to empirically investigate the association between dollarization and sound macroeconomic performance measured in terms of a growth in output, inflation, inflation uncertainty and investment using a comparison analysis for the pre-dollarization and dollarization periods in Zimbabwe.

2. Dollarization: Zimbabwe's Historical Experience

Prior to dollarization in 2009, the country was using the Zimbabwe dollar pegged against the US dollar. A series of events that include hyperinflation, macroeconomic instability and currency substitution led to the demise of the Zimbabwean dollar which was later suspended indefinitely.

Arguably, Zimbabwe can be said to be operating a multiple currency system or a dollarization though the economy does not have an official agreement with the United States Federal Reserve to use its currency. This is witnessed by absence of United States Coins. It is presumed dollarized since government conducts all its business using the United States (US) dollar. The economy of Zimbabwe witnessed serious macroeconomic instability that became worse in the last decade which saw the government abandoning its currency as it was deemed unsustainable in the background of hyperinflation and high rates of unemployment (Ndlela et. al 2010). The country witnessed episodes of devaluation and revaluation of the currency before it finally hit a snag when the currency became virtually useless in economic terms. At the background of such devaluations and revaluations were payments of gratuities to war veterans which fuelled inflation and the introduction of the Fast Track land reform programme that culminated into a dismal performance of the Zimbabwean economy. Poor economic performance signalled dwindling foreign exchange reserves which seriously compromised the use of the fixed exchange rate system.

3. Dollarization: By Choice or Force?

Dollarization can be categorically classified into two (Dean 2001; 2002). First, *de jure* dollarization and second, *de facto* dollarization. *De jure* dollarization is a unilateral adoption of a foreign currency by the general public with government reinforcement while *de facto* dollarization entails government legitimisation of dollarization by allowing other currencies to circulate together with the domestic currency or by abolishing completely the domestic currency in favour of a foreign currency. Zimbabwe experienced all the types of dollarization. In the period 2004 – 2008, the general public started substituting the domestic currency for foreign currency as the purchasing power of the local currency (Zimbabwe dollar) started a free fall. Following this dramatic and unwarranted fall in the value of the Zimbabwe dollar, the government was forced to legitimize dollarization as a means to stabilise the economy. The monetary system in Zimbabwe was *de facto* dollarized in 2009 with a number of currencies being used as legal tender. These include the Euro, the British pound, the United States dollar,

South African rand and Botswana pula. However, the United States Dollar (hereafter USD) has been adopted as legal tender for all government transaction. . However, Edwards (2011) states that Zimbabwe could have become officially dollarized by end of 2012. Like Ecuador and Salvador, Zimbabwe shifted to the USD as the official currency in which trade is conducted.

4. Review of Literature

Dollarization is an exchange rate system that can be equated to a fixed exchange rate regime though there are acute differences. It has advantages and disadvantages that range from the political economy ideologies to conventional economic reasoning. Dollarization helps in providing a stable environment of international trade and investment. In trade realms, dollarization reduces transaction costs and currency risks which are likely to negatively impact trade and hence, economic growth. Dollarization enables long term investment plans as rates of return can be confidently predicted. Dollarization harnesses monetary growth thus lowering inflation rates to levels that may promote exports and reduces imports thereby improving the current account balance of the balance of payments position of the economy.

Fixed exchange rate cum dollarization help borrowers because foreign currency carries less risk and inflation and interest rate would be constrained by foreign reserves. The disadvantages associated with dollarization are that there will be loss of autonomy in changing the exchange rate. The adopting country will be a recipient of exchange rate shocks in the host country. This may hurt competitiveness of the economy since other trading partner countries may devalue their currencies vis a vis the foreign currency adopted without the country following suit.

Dollarization is argued to provide a nominal anchor for the monetary policy and macroeconomic stability. More so, it facilitates trade through fostering trade integration between countries that have dollarized with those countries to which it links its currency (Klein, 2005). In summary, the motivation of dollarization is economic stability.

Following these pros and cons of dollarization, a country has to adopt dollarization after considering the gains associated with eliminating currency risk against loss of possible interventions in stimulating economic activity.

On the disadvantage side, dollarization leads to a loss of national monetary policy independence, ii) loss of seigniorage revenue, iii) inability to avoid speculative attacks, iv) failure to allow automatic adjustment to trade shocks and v) failure to retain the lender-of-last resort capability (Frankel, 2012)

Empirical Evidence

Dollarization necessitated economic stability and economic growth in Ecuador though unemployment remained high as the labour market did not respond. Stability was recorded in prices and the exchange rates and this was backed by prudent fiscal management which enhanced economic growth (Soto, 2008) Hira and Dean, (2004) empirically investigated the distribution effects of dollarization of Latin American countries. The results though seemed to explain that dollarization leads to improvements in economic growth, the study concludes that dollarization does not improve all aspects of the economy as the external debt position of some countries under study e.g. Ecuador got worse after dollarization. In addition, if a country has many third party trading partners after the one to which the currency has been adopted, the

impact of dollarization will be to cause a decline in competitiveness if the currency appreciated against the country's trading partner currencies.

Mohamed, (2012) observes that dollarization of the Somali economy brings severe economic turmoil characterised by price instability in the domestic market. Such a conclusion entails that

policy makers and business pundits should reduce their over reliance on the US dollar as a stabilization policy but to have a managed float on a basket of currency in the short term while conditioning for the use of the domestic currency for enhanced economic performance in the long run.

The choice about the proper exchange rate regime in boosting economic performance evolve from the arguments that were envisaged by the events of the 1990s that led to developments of the Washington Consensus (Klein, 2005). The Washington consensus alludes to the idea that, economies should strive to either float their currency or opt for the adoption of hard peg such as a currency union or dollarization.

Klein, (2005) in an examination of the effects of dollarization on trade found no strong evidence to vindicate adoption of dollarization. The results from this study further unapproves the role of dollarization as a conduit for economic performance as the trade performance of the dollarized western hemisphere developing countries could not significantly surpass the trade performance of the non dollarized western hemisphere developing economies with the US. However, these results are in contradiction to an earlier observation by Rose & van Wincoop (2001) that dollarization of an economy improves the economy's bilateral trade volumes with the US.

After incidences of high levels of inflation in the dollarized period, Malaysia removed its peg to the US dollar and adopted a managed float with favourable results being noticed in terms of price stability (Netto, 2005).

Edwards & Magendzo, (2003) analysed whether there are any growth and volatility differences between dollarized and non dollarized economies. Using treatment regression analysis, results confirm that there are no significant growth differences between the two groups. However, on the volatility of GDP per capita growth, non dollarized nations are found to be more volatile than dollarized nations.

5. Dollarization and Economic Performance: Methodological Issues

To examine the impact of dollarization on economic performance in Zimbabwe, the following model was estimated;

$$(1) \quad Y_t = \beta_0 + \sum_{i=1}^n X_i \beta_i + \delta D_t + \mu_t$$

where Y_t is real output in period t , and X is a vector of other factors affecting output. D is a dummy variable measuring dollarization, taking the values; $D = 1$ with dollarization and 0 otherwise. The difference of this approach with others is that, a majority of studies compared countries that dollarized with those that did not. However, this study compares the performance of the economy in dollarized and non-dollarized time periods. Since this is a growth model, the equation to be estimated is specifically presented as follows:

$$(2) \quad \log y_t = \beta_0 + \beta_1 \log y_{t-i} + \delta D_t + \mu_t$$

With y defined as real GDP per capita, measured in current US\$.

6. Results and Discussions

To test whether dollarization influence economic performance, an autoregressive distributed lag model was used and the results reported in Table 1. Given the outcome of the results, it is observed that dollarization significantly impacted on economic growth. Moreover, previous economic performances feed into current economic performance as observed by a significant coefficient of the lagged value of the dependent variable. Dollarization dummy and the lagged GDP explain approximately 80 percent of the variation in the current levels of GDP per capita. The coefficient of the dummy variable dollarization denotes that the mean per capita GDP in the dollarized era is greater than the mean GDP per capita for the non-dollarized regime by 0.93.

Table 1: Dollarization and Economic Growth

Dependent Variable: LOG(GDP)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.430692	0.574052	0.750267	0.4591
DOLLARIZATION	0.136597	0.067899	2.011757	0.0536
LOG(GDP(-1))	0.929075	0.088429	10.50645	0.0000
R-squared	0.798649	Mean dependent var		6.435175
Adjusted R-squared	0.784762	S.D. dependent var		0.277925
S.E. of regression	0.128940	Akaike info criterion		-1.169881
Sum squared resid	0.482140	Schwarz criterion		-1.032468
Log likelihood	21.71809	Hannan-Quinn criter.		-1.124332
F-statistic	57.51342	Durbin-Watson stat		1.784067
Prob(F-statistic)	0.000000			

These findings are consistent with the results of Soto, (2008) which confirms that dollarization is a conduit for economic stability and economic growth.

7. Implication for Policy and Future Research

This study sought to empirically investigate the effect of dollarization as an exchange rate regime as a stabilization option. The study is inherently important in contributing to the ongoing debate on the nexus of monetary arrangement systems or exchange rate regimes on economic growth. Generally, the fundamental determinants of growth include investment, employment, and institutional capacity. Recently, the category has been broadened by the inclusion of the real exchange rate and exchange rate regimes. The exchange rate regime or monetary arrangements are taken as precursors of economic growth. In the case of Zimbabwe, it is seen as a panacea of economic growth. Thus, one could argue that a further pursuance with dollarization as a monetary arrangement in Zimbabwe further enhances economic growth. However, a number of issues need to be accounted for, for dollarization to take effects. Issues

of separation between political engagements and dollarization need to be accounted for to widen an understanding of the effects of dollarization on economic growth. However, for economic stabilization, dollarization as a monetary arrangement can be used as an option.

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