



Research Paper

Cyclicity of Diaspora Remittances in Zimbabwe

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ABSTRACT: The study examines the cyclicity of diaspora remittances in Zimbabwe. The cyclicity of diaspora remittances aid in confirming whether migrants are moved by altruistic or self-interest motives. The study used annual national income data and diaspora remittances flows data for the country Zimbabwe for period 2009-2019. Data for the two variables were properly transformed to enable good results derivation. Using the trend and correlation statistic the study found that diaspora remittances are pro-cyclical. Migrants send money back home for investment purposes more than for altruistic purposes. The study recommends improvement in the investment climate in order to attract more monies from migrants abroad. Continuous diaspora engagement is emphasized to learn more from the wishes of Diasporas that may drive the economy towards stability and growth.

Key words: Altruism, Cyclicity, Diaspora, Investment, Migrants, Remittances, Zimbabwe

JEL Codes: D14, D64, D91, F22, F24, F66, I26, J61, K37, O11.

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I. INTRODUCTION

Migrants abroad usually send money and goods back home for various reasons. Migrants use a wide array of informal and formal mechanisms to remit money (OECD, 2006). A remitting pattern is usually observable over the years for the remittances. The observable pattern may be linked to the macroeconomic environment of the home country, recipient countries or the global world. In theory, the behavior of remittances over the cycle is related to the motives to remit (De *et. al*, 2016). The cyclical nature of remittances may help confirm whether migrants are moved by altruistic or self-interest motives (UNECA, 2013). The growing trend of remittances has been globally noticed. In support, OECD (2006) narrated that migrant remittances are a steadily growing external source of capital for developing countries.

Economic change is a law of life (Burns, 1969). The behavior of diaspora remittances under various business cycle episodes is critical to be observed. Economies undergo periods of economic booms, periods of declining activities, periods of economic crisis, financial crisis and deep depressions. Zimbabwe as a nation has undergone various economic episodes just like any other country in the world. Worth to note is that the length of each business cycles differs for each nation depending on issues of policy and strategy. Diaspora remittances, like other inflows like foreign direct investment and official development assistance has a potential to act as a stabilizer during periods of high business cycle volatility.

Economic history discloses endless variations of economic conditions (Burns, 1969). In relation to economic cycles, remittances may either be counter-cyclical or pro-cyclical. Counter-cyclical means that remittances are believed to be unrequited transfers without expectations of personal gain sent to relatives during large shocks (De *et. al*, 2016). Pro-cyclical means that remittances are usually used for investment purposes in the home country. Business cycles have become more synchronised across countries and a factor making for synchronous business cycles are common shocks (Duval, Elmeskov and Vogel, 2007).

1.1 Research Problem

There is growing literature on the importance of diaspora remittances across the globe. According to UNCTAD (2013), solid evidence exist that remittances can and have assisted many developing countries and least developed countries in maintaining balance of payment stability, ensuring the availability of hard currency, improving countries' credit worthiness for external borrowing and increasing internal aggregated demand among others. Such claims may not have been empirically tested for individual countries.

The said impacts of diaspora remittances may yet to be so significant on the macroeconomic picture of the economy. Globally diaspora remittances have been noticed growing, however for Zimbabwe, the pattern is just different. Zimbabwe seems unable to attract the remittances from its migrants abroad (Bonga, 2020). The multi-currency era has witnessed a rising trend of diaspora remittances from US\$294 million in 2009, reaching a peak of US\$935 million in 2015, and thereafter a gentle decline till 2018 (US\$619.25 million), and a slight rise in 2019 to US\$635.43 million. The diaspora remittances flows figures recorded in Zimbabwe do not match the global trend, and do not match the increasing volumes of Zimbabwe migrants abroad. For the period 2009-2020, Zimbabwe has recorded every year negative net migration statistics. The concern of the study is to empirically determine the cyclical nature of diaspora remittances in an effort to explain the observed trend that is not matching to the global trends.

1.2 Objectives of the Study

The study seeks to determine the cyclical nature of diaspora remittances flows in Zimbabwe.

1.3 Organisation of the Study

The rest of the paper is organized as follows. Section II presents the literature review. Section III presents methodology and Section IV presents data analysis and discussions for the study. The study conclusions and recommendations are provided in Section V.

II. LITERATURE REVIEW

The concept of migration and remittances is not new. The act of migration is old (Bonga, 2020a). Mass scale migration began in the early nineteenth century. The importance of remittances in compensating the human capital loss of developing countries through migration and their potential in boosting economic growth was already recognised in the beginning of the 1980s (OECD, 2006). As explained by Lucas and Stark (1985), early literature in development economics, the alleged benefits of remittances were said to capture aspects of economic and human development.¹ In recent years, remittances have experienced substantial growth (Piteli, 2013), and for many economies remittances have started to show various resilient patterns worth investigation. Remittances have shown some form of relationship with economic activity in many countries including economic crisis times. The literature on remittances is still very low as compared to some financial flows variables like foreign direct investment and aid. Various scholarly studies and international organisations went as far as considering remittances a new development mantra (Kapur, 2004).

Extant literature identifies six distinct microeconomic motives of remittances; altruism, exchange, inheritance, a strategic motive, insurance and investment (Piteli, 2013). No models have yet been developed to test all such motives of remittances. However, Lucas and Stark (1985) triggered the debate, suggesting that the motivation to remit is driven by both egoistic and altruistic reasons. The pure altruism theory states that migrants send money to their families because they care about the well-being of their family (Bonga, 2020). Explaining the self-interest –exchange motive, Fokkema *et. al* (2013) indicated that people in the diaspora remit funds to pay people who look after their investments or other material assets that are likely to be part of their preparation for returning. The self-interest motive includes the aspiration to an inheritance, the desire to have a trustworthy family to channel one's investments, the desire to retain the prospect of returning back home with dignity, and the possibility of building a trusted network of potential business collaborators (Piteli, 2013).

Macroeconomic determinants of remittances literature is broadly centred on an altruistic motive to remit earnings to the migrant's source country and a motive to remit either for investment, or to repay previously borrowed funds (Chamiet *al*, 2005). Gupta (2005) analysed the dynamics of remittances using an optimal framework, whereby a migrant maximizes her utility by choosing the optimal level of her own consumption, remittances to family in her native country for their consumption needs, and investment in various available instruments in the native country, as well as in the host country.

From the previous studies, the cyclicalities of diaspora remittances is difficult to generalize. There have been lack of extensive and reliable data on remittances cited by many previous studies. Some studies focused on a small, if not a single, set of countries, whose diaspora is concentrated in a known country, or small group of countries. Very few studies have analysed inward remittances for a large panel of countries, and in those studies they used global variables such as oil prices, LIBOR and/or world output as proxies to economic conditions. Gravity models have also been applied concluding that trade linkages and colonial ties between home and host countries emerged as strong indicators of the propensity to remit (Lueth and Ruiz-Arranz, 2007). The methods used obtained various differing results, due to their shortcomings, and hence the findings are not conclusive.

¹ Such as, easing liquidity constraints, promoting health and education, providing access to consumer goods, fostering entrepreneurship and more generally, boosting economic activity of the recipient economy.

This therefore requires this study to explore the cyclicality of diaspora remittances for Zimbabwe, and suggest relevant policies on the nature obtained.

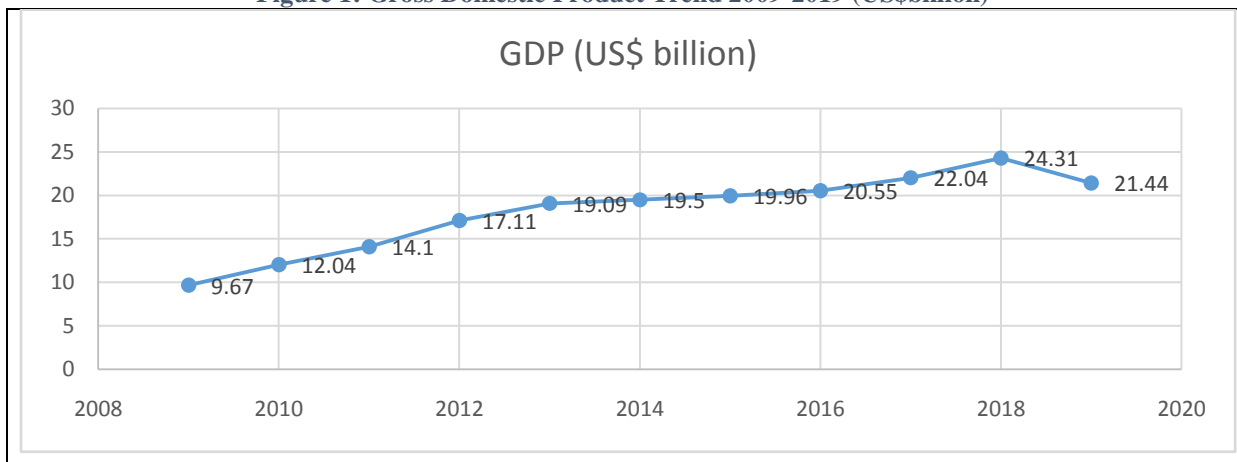
III. METHODOLOGY

The cyclical nature is evaluated using correlations between national income and diaspora remittances flows. Diaspora remittances inflow is counter-cyclical (pro-cyclical), if the correlation with GDP is negative (positive). GDP was chosen as an appropriate measure of national income against the Gross National Product (GNP), because GNP includes the net factor income from abroad. Data used in this study has been obtained from various Reserve Bank of Zimbabwe publications. The study used the Microsoft Excel and Eviews statistical software for data analysis.

IV. DATA ANALYSIS AND DISCUSSIONS

The main variables in the study are GDP and Diaspora Remittances. Figure 1 below shows the trend of GDP for the period 2009 to 2019.

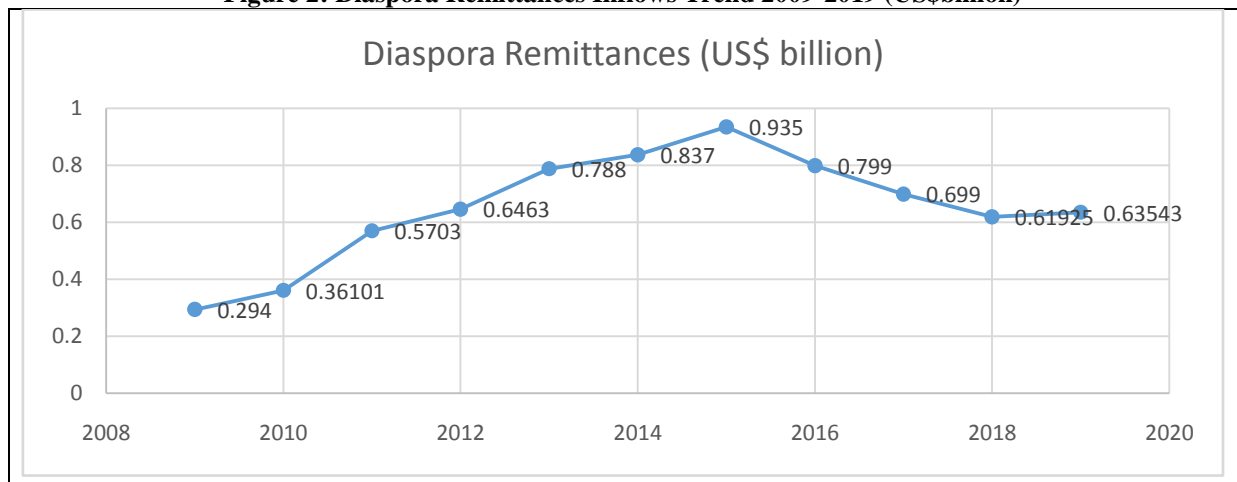
Figure 1: Gross Domestic Product Trend 2009-2019 (US\$ billion)



Source: Various Reserve Bank of Zimbabwe publications

As shown in Figure 1 above, there is a rising trend for the national income from year 2009 reaching a peak in 2018 (US\$24.31 billion), and a drop in year 2019 (US\$21.44.). The trend from 2009 to 2019 is not an even trend, it changes the gradient between periods. Figure 2 below shows the trend for diaspora remittances.

Figure 2: Diaspora Remittances Inflows Trend 2009-2019 (US\$ billion)



Source: Various Reserve Bank of Zimbabwe publications

As shown in Figure 2 above, diaspora remittances flows has a rising trend from 2009 until 2015 (US\$ 0.935 billion) being the peak, and thereafter gently dropped until 2018 (US\$ 0.61925), and a slight rise in 2019 (US\$0.63543 billion).

The summary statistics for the two variables are shown in Table 1 below;

Table 1: Summary Statistics (GDP and Diaspora Remittances)

	GDP	DIASPORA REMITTANCES
Mean	18.16455	0.653117
Median	19.50000	0.646300
Maximum	24.31000	0.935000
Minimum	9.670000	0.294000
Std. Dev.	4.498536	0.194296
Skewness	-0.648644	-0.537362
Kurtosis	2.337240	2.485889
Jarque-Bera	0.972679 (0.614873)	0.650532 (0.722335)

Source: Eviews Software

For the period under study average GDP stands at US\$18.16 billion, while average diaspora remittances flows stand at US\$0.653 billion. GDP has a higher variability as reported by the standard deviation of 4.498 as compared to diaspora remittances with a standard deviation of 0.194.

To attain study objectives the study works with stationary data. Removing the trend help in separating fluctuations around the trend of each time series thereby allowing the examination of the statistical properties of the co-movements of deviations of real GDP and real diaspora remittances. The data for the variable is in billions. To manage data behavior the study logs the variables. When logs are applied, the distributions are better behaved, and taking logs also curtails the effects of outliers. The results of unit root test are shown in Table 2 below;

Table 2: Augmented Dickey-Fuller Test (GDP and Diaspora Remittances)

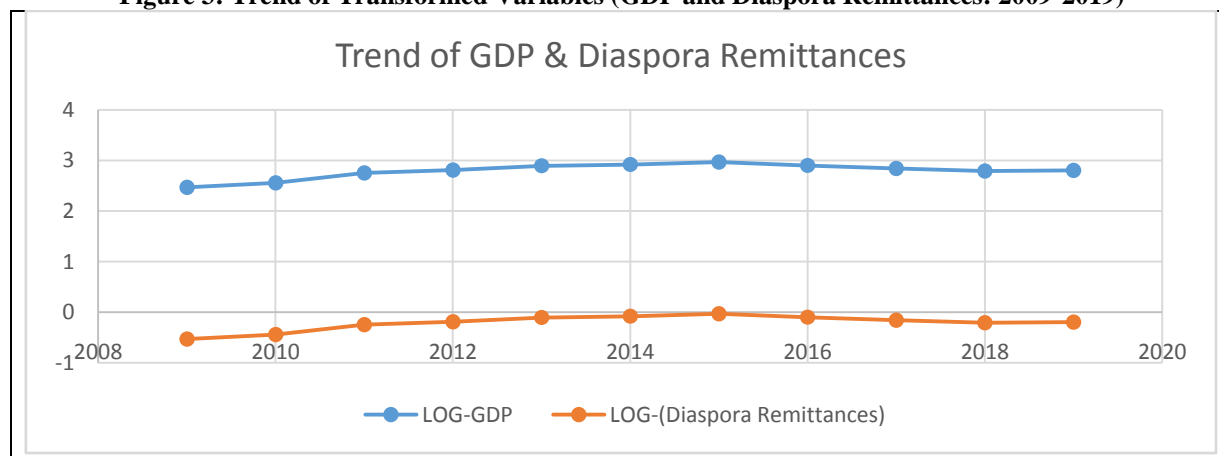
Logged variables	Augmented Dickey-Fuller test statistic	Probability
GDP	-3.386331	0.0418
Diaspora Remittances	-4.301728	0.0099

Source: Eviews Software

From Table 2 above, the reported ADF-statistics has significant p-values indicating stationarity of the variables. ADF-statistic for GDP is significant at 5 percent level while diaspora remittances ADF-statistic is significant at 1 percent level.

The logged variables can be compared better as compared to the data in levels. This is enabled by the statistical advantages of taking logs. The trend of GDP and diaspora remittances flows after taking logs is shown in Figure 3 below;

Figure 3: Trend of Transformed Variables (GDP and Diaspora Remittances: 2009-2019)



Source: Microsoft Excel

From Figure 3 above GDP remains having high magnitudes of values and they are positive, while diaspora remittances has smaller magnitude values which are negative. The variables exhibit a similar pattern. There is now reduced variability for both variables.

The study calculates the correlation between GDP and diaspora remittances. Two series have been used, data in levels and the logged variables. Correlation results are presented in Table 3 below.

Table 3: Correlation Statistic (GDP/Diaspora Remittances)

Correlation	Data in Levels	Variables in logs (Stationary)
<i>GDP/Diaspora Remittances</i>	0.723030 (72.3%)	0.839191 (83.92%)

Source: Eviews Software

From Table 3 above a positive correlation is reported between GDP (national income) and diaspora remittances. A correlation of 72.3% is reported for untransformed data, while a correlation of 83.92% is reported using transformed data. The transformed data shows a stronger relationship between the two variables. A positive correlation of 83.92% means that *diaspora remittances are pro-cyclical*.

The cyclical nature of remittances may help confirm whether migrants are moved by altruistic or self-interest motives (UNECA, 2013). Pro-cyclical implies that diaspora remittances would be expected to move in the same direction with periodically observed fluctuations of national income (GDP), decreasing whenever there is an economic crisis, and increasing whenever there is a boom in the origin country of the migrants. Diaspora remittances in this case do not serve as a macroeconomic stabilizer to help smooth out large fluctuations in the national income observed over different phases of the business cycle. The study results shows that for Zimbabwean migrants abroad the investment motive of remitting is stronger than the altruistic motive.

V. CONCLUSION

The study examined the cyclicalities of diaspora remittances in Zimbabwe. The cyclicalities of remittances may help confirm whether migrants are moved by altruistic or self-interest motives. The study attained its objectives by using two variables in its analysis; the national income as measured by GDP and diaspora remittances flows. The study relied on the data during the multi-currency era, 2009 to 2019. The study used correlation as its main tool for analysis. Crucial data transformation was done to ensure good results are obtained. The study obtained a positive correlation between national income and diaspora remittances of 83.92%. The correlation results have been consistent with the observed trend of the transformed data. A positive correlation derives the study to conclude that diaspora remittances are pro-cyclical.

The pro-cyclicalities of diaspora remittances means that they follow the same trend with national income; in times where national income is high (low), diaspora remittances are also high (low). Diaspora remittances do not help in stabilizing the economy. This therefore means that migrants are more of investors in the origin country than serving for altruistic purposes.

To reap more from migrants, the study recommends improvement of the investment climate in the country. Migrants are more willing to remit funds back home when investing. Investment avenues for the diaspora should be developed and improved. Avoiding past errors in policy formulation should be avoided. Poor policy engagement has caused policy failure in Zimbabwe (Bonga, 2016), and this should be corrected. Continuous diaspora engagement is emphasized to ensure success and stability in the economy.

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