Impact Of Remittances On Foreign Currency Supply In Developing Economies: A Case Of Zimbabwe From 2009 to 2022

Collin Chikwira
School of Public Management, Governance & Public Policy Directors Office, University of Johannesburg, South Africa, Johannesburg, South Africa.

*Corresponding Author: collincolchi1913@gmail.com

Abstract: The study investigates the impact of remittances on the foreign currency supply in Zimbabwe from 2009 to 2022. The analysis focuses on understanding how remittance inflows have contributed to the availability of foreign currency in the Zimbabwean economy, considering the economic challenges the country has faced, including hyperinflation, currency devaluation, and economic instability. The Ordinary Least Squares (OLS) regression method was employed to analyse Zimbabwe's relationship between remittances and foreign currency supply. The study uses annual data from 2009 to 2022. The OLS regression results indicate a significant positive relationship between Zimbabwe's remittances and foreign currency supply. The analysis reveals that remittances have been a crucial foreign currency source, helping stabilise the economy during economic turmoil. Additionally, exchange rates and GDP significantly impact the foreign currency supply. The findings underscore remittances' vital role in enhancing Zimbabwe's foreign currency supply. Given the economic instability in the country, remittances have served as a reliable and stable source of foreign exchange, which is critical for sustaining economic activities. This study contributes to the literature on remittances and their economic impact by providing empirical evidence from Zimbabwe. It highlights the importance of fostering policies encouraging remittance inflows, which can significantly stabilise foreign currency supply in developing economies facing economic challenges.

Keywords: Remittances, foreign currency, Zimbabwe,

INTRODUCTION

Cross-border migration and the remittance industry are deeply ingrained in Sub-Saharan Africa's history. Economic and political instability are the main causes of migration in Africa. People are moving to other countries for greener pastures, where they can get opportunities to develop their skills and contribute their knowledge to industries. Back home, they create a gap in demand while creating demand in the countries they migrated to, thus improving their economic activities. Due to reduced population, African countries struggle to increase their economic growth. Population increase is a market created for goods and services; thus, to satisfy these growing populations, they are increasing production to meet the needs of these

people, thus contributing to economic growth and activities. At the same time, the migrants leave their dependents' homes. Thus, they have to send money back to leave. Dahal (2022) states that as the discussion lingers on the macroeconomic effect of remittance in developing economies, remittance has become the major financial flow to developing economies, surpassing foreign direct investment in 2019 (World Bank, 2019). As world migration continues to grow, remittances are anticipated to surge further and play a crucial role in the countries receiving remittances in developing economies. Henceforth, it is vital to understand the impact of remittance in developing economies (Dahal,2022).

The research evaluates how well money transfer services function in Zimbabwe's foreign currency supply. Globally, particularly in developing financial markets, money transfer firms are crucial in directing financial expansion via the increasing exchange rate supply between countries (World Bank, 2022). The money people and organisations send abroad, either as gifts or contributions from other countries or as remittances from migrants, is known as remittances. By significantly meeting their fundamental necessities, remittances provide a lifeline to some of the world's most needy nations—Zimbabwe, in particular. According to the UN Migration Agency (2017), remittances are now the main source of foreign exchange and play a critical role in the economics of developing nations like ours. According to a hypothesis made by the World Bank in 2021, remittances may make up more than one-third of a nation's GDP and be a less volatile source of foreign exchange than foreign direct investments. Over the decade, the Zimbabwean economy has experienced a crumbling financial sector characterised by excessive demand for day-to-day business conduct from the general public for US dollars and other currencies, such as South African rands.

BACKGROUND OF THE STUDY

Approximately 16 million people call Zimbabwe home; over 30% reside in cities. Zimbabwe is a landlocked nation. There is presently USD 890 in GDP per capita. Significant social unrest and political upheavals have been linked to Zimbabwe's economic suffering. Beginning in 1997 and gaining momentum in 2000, a land distribution campaign catalysed widespread violence fueled by political motives (fast-track land reform program). Redistributing farmland held by white people to black Zimbabweans—many of whom had political ties—was the outcome of the land reform initiative. Job losses and sharp drops in export revenue resulted from the majority of confiscated farms being unproductive. The economic collapse that followed the 2007–2008 financial crisis resulted in an estimated 231 million percent hyperinflation and a 94% increase in unemployment (Truen et al. 2016). In order to provide for their families, a significant number of Zimbabweans began to leave the nation as a result. The Zimbabwean market for remittances saw significant growth in value in 2010. By boosting foreign cash in a starving economy, remittances play a crucial role in aiding a damaged country.

Financial institutions that use their system to transmit money across national borders are considered money transfer agents (IMF, 2022). MTAs fall within the category of authorised dealers with restricted jurisdiction under the Central Bank of Zimbabwe's legislative instrument SI109 of 1996. Fintech is now cheap, quick, and easy because of how technology has advanced and changed how the sector operates. Therefore, the development of technology in the financial sector has served as a stimulant for both the ongoing movement of people and an increase in the number of remittance flows (The Immigration Department, 2022). The IMF (2022) reports that over 4.8 trillion US dollars have been transferred in foreign currency via remittances as evidence of the impact of remittances worldwide.

The world's 10 highest-remittance-earning nations are shown in the table below.

Table 1 Top ten countries with the highest remittances across the globe

Rank	Country	Remittance Inflows	% of Nominal GDP
#1	India	$82.2B	2.8%
#2	China	$70.3B	0.5%
#3	Mexico	$38.7B	3.1%
#4	Philippines	$35.1B	9.8%
#5	Egypt	$26.4B	8.8%
#6	Nigeria	$25.4B	5.7%
#7	Pakistan	$21.9B	7.9%
#8	Bangladesh	$17.5B	5.5%
#9	Vietnam	$16.7B	6.4%
#10	Ukraine	$15.9B	11.8%

Source: World Bank (2022)

Remittances mostly influence the worldwide foreign currency supply, as Table 1 illustrates. With a projected reception of $82.2 billion by 2022 and a net impact of 2.8 on the nominal GDP of the nation, India finds itself in the top position. By boosting the money supply, remittances will thus account for 2.8% of India's GDP in 2022. With $70.3 billion and a net impact of 0.5% on nominal GDP, China is placed second in the world; Mexico comes in second with $38.7 billion and a net effect of 3.1% on nominal GDP. Comparably, remittances to Egypt totalling $26.4 billion had a net effect of 8.8% on nominal GDP, Nigeria's $25.4 billion, Pakistan $21.9 billion, Bangladesh $17.5 billion, and the Philippines $35.1 billion had a net effect of 5.7% on nominal GDP. Remittances to Nigeria totalled $25.4 billion. The nominal GDP was affected by $16.7 billion in Vietnam and $15.9 billion in Ukraine, respectively, by 6.4% and 11.8% of the total. A summary of the worldwide remittance transactions that will be completed by 2022 is given in the discussion above. In a spectrum, overall remittances topped $530 billion as of 2016, according to the World Bank (2022). As Figure 1 illustrates
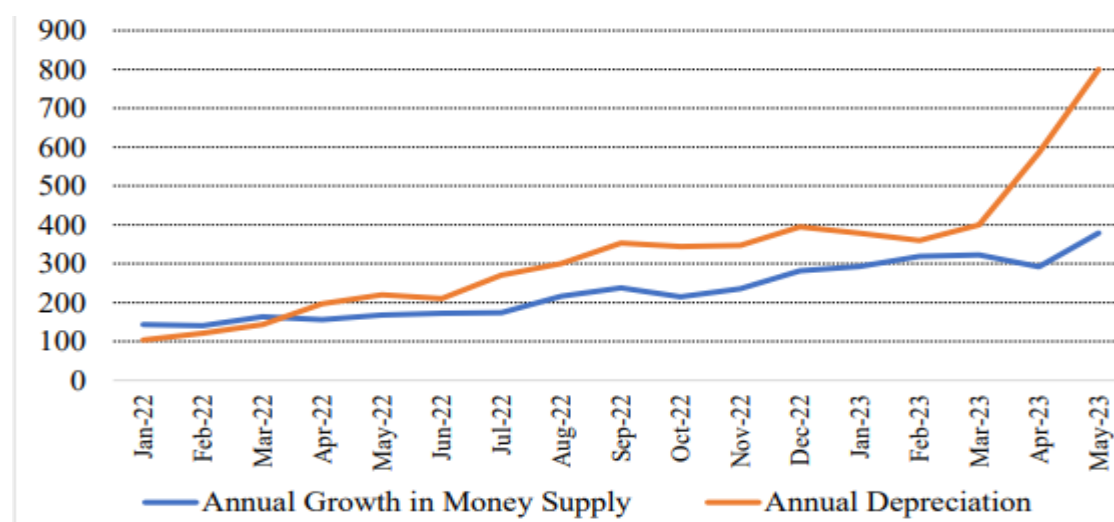

Figure 1. Remittance Statistics for Zimbabwe
Source: RBZ Monetary Policy Statement June 2023

According to the depreciation of the local currency, figure 1 shows a progressive rise in the number of MTAs required to provide foreign cash. This shows Zimbabwe is effectively supplying forex via MTAs. Currency transfers have become necessary due to individuals

moving across national borders (World Bank, 2020). For these reasons, among others, sending money home for family needs, dividend payments, grants, and other purposes is one of the main purposes for which individuals, corporations, and even middle-sized organisations utilise foreign exchange. According to the Migrants and Refugees Section (2020), the significant financial crisis in Zimbabwe was resolved when an estimated 91,413 individuals left the country between 2018 and 2020. The amount of remittances received in Zimbabwe increased sharply from 1,982 million in 2021 to 2,047 million in 2022 due to a high rise in the number of persons going abroad (World Bank, 2022). Zimbabwe is one of the nations with the most affected emerging financial markets. It is characterised by a severe financial crisis marked by high exchange rate volatility levels, multiple currency sources, and excessive forex trading on the darker market (World Bank, 2019). The insatiable demand for foreign money among the general public, which outpaced both supply and demand for local currency, was the primary cause of the financial crisis in Zimbabwe, according to the Monetary Policy Statement (2023) issued at the midyear point. Zimbabwe's financial system is seriously collapsing and haemorrhaging, with a severe shortage of foreign exchange due to sanctions and a lack of public trust in the country's currency. That thus leaves the issue of where the nation gets its foreign currency open.

Ultimately, the research aims to determine the empirical connection between MTAs and foreign exchange supply in Zimbabwe. The findings also assist in educating and directing policy and further our understanding of remittances' crucial role in the Zimbabwean economy.

LITERATURE REVIEW

International remittances will directly impact the country's net financial position to the rest of the world as they are transfers of foreign money that, in contrast to other forms of international flows, have no accompanying obligations. The ideas behind MTAs (remittance) are examined in this section. According to Gazeaud (2020), there is a faster rate of increase in the movement of foreign currency from emerging economies to emerging economies, especially Zimbabwe. Emerging economies are putting pressure on Western countries by heavily supporting European populism. Between 2000 and 2019, the number of persons moving abroad increased by more than 50% globally, according to the international migration industry (Esipova et al., 2013). The population ranged from 173 million to 272 million. Serious financial crises and economic limitations plague most developing countries, spurring economic expansion. As to the findings of Bastagli et al. (2016), some reasons are responsible for the parallel statistical trend in migration, including unsound financial systems that exhibit exchange rate volatility, excessive levels of inflation, and financial instability.

Macroeconomic Implications of Remittance Theory (VMIRT)

According to Chami et al. (2008), there is a strong worldwide need for labour, mostly from developing nations into industrialised ones. The increased import of labour from developing nations has resulted in a massive rise in remittance flows to these countries. The IMF (2023) backed it and stated that the global market anticipated significant, drastic changes in the economic environments of the countries receiving the largest inflows due to increased import of labour resources from developing economies, which led to a continuous increase in remittance flows. According to the idea, remittances are exogenous, which means that a high remittance level must also raise the income (or supply of foreign money) the nation's domestic inhabitants may utilise. Thus, this theory deduces that worker demands for short-term macroeconomic performance, endogenous and external labour supplies, and the need to purchase and supply commodities to other nations are the main causes of remittance inflows or outflows from one country to another.

The use of remittance services in Zimbabwe

Zimbabwe is thought to be the country where most individuals migrate inside the SADC area, according to the International Immigration Unit (2020). The statement that Zimbabweans are almost everywhere in the cosmos was also echoed by Malema (2023). This was corroborated by pan-African remittance data, which lists Zimbabwe among the top 20 recipients of remittances with the biggest value (World Bank, 2023). According to T. Gwatidzo (2021), remittances have become a common means of payment for Zimbabweans, as shown by the country's recipients of over $2 billion.

Table 2 below summarises the remittance usage in Zimbabwe per household per month in 2017.

Table 2: Monthly usage of remittances in 2017

	non-Recipient	Recipient	diff	t-value	p-value
Food exp. ($)	84	92	8	8.8	0.00
Non-food exp. ($)	130	165	35	15.4	0.00
Total exp. ($)	214	257	43	15.7	0.00
Education exp ($)	15	19	4	8.6	0.00
Health exp. ($)	3	6	2	5.3	0.00
Durables exp. ($)*	65	76	11	4.7	0.00
Per capita food exp. ($)	24	27	3	7.8	0.00
Per capita total exp. ($)	64	77	13	11.0	0.00
Education share to total exp.	0.07	0.07	0.00	2.0	0.05
Health share to total exp.	0.01	0.01	0.00	5.5	0.00
Food share to total exp.	0.44	0.41	-0.03	-12.2	0.00

Source: Survey by Gwatidzo 2021

Table 2 above, which helped to summarise the data for remittance use in Zimbabwe in 2017, was created using the propensity score matching technique, according to Gwatidzo (2021). The approach concluded that an average household gets at least USD 7 per month in remittances from local and foreign sources. This indicates that many of Zimbabwe's population has adopted remittance services.

EMPIRICAL REVIEW

Migration and remittances are often a component of risk dispersion and core insurance in poor nations, according to research by H. Haas (2007) on the conceptual evaluation of remittances, migration, and social development. Remittances, therefore, have the power to transform people's lives and are a magic bullet for resolving fundamental issues that rising economies all confront. Remittances have generally become a life-changing opportunity for developing countries to rebuild a robust economic structure, change people's welfare, and create functional markets, health systems, and education. As a result, the study concluded that these countries cannot be held responsible in the future for not developing their home countries. This is because remittances, which play a crucial role in driving up the supply of foreign currency and, therefore, the velocity of foreign exchange throughout the nation, depend highly on migration.

Foday and Sheriff (2021) looked at how remittances affected the actual effective exchange rate in the Gambia in their research. They used monthly data from 2009 to 2019 and modified OLS and dynamic OLS techniques. They found that remittances positively impact the actual effective exchange rate in the Gambia. Using the System Generalised Methods of

Moments (S-GMM) for the linear dynamic panel data (DPD) model from 32 nations between 2006 and 2016, Nguyen et al. (2020) investigated if Dutch illness has an impact on developing Asian countries. The true effective exchange rates of these nations are affected by remittances, they discovered.

Truen's (2016) investigation of their effects in Lesotho, Malawi, and Zimbabwe shows that remittances have a favourable long-term growth impact on poor countries. Remittances' impact on Nepal's macroeconomy from 2004 to 2019 was studied by Dahal et al. in 2022. The research found that remittances dramatically increase Nepal's money supply using an SVAR (Structural Vector Autoregression) model in a submission by Alawnah (2020) on the relationship between the money supply in Jordan from 2000 to 2018 and the remittances sent home by workers. The authors used both a conventional statistical analysis technique and a descriptive approach. The results indicate that worker remittances favourably impact the money supply.

METHODOLOGY
To effectively analyse the effect of remittance, the study adopted an OLS regression model to examine the impact of remittance on foreign currency supply in Zimbabwe. Time series data spanning from 2009 to 2022 were employed in the research.

Model Specification
Adediyan (2020) used an econometric model to investigate the factors influencing Nigeria's money supply, which was included in this paper. To better fit the Zimbabwean economy, we modified and adjusted the model:

Justification of Variables
- **FXS:** The foreign currency the general public needs to purchase is determined by the described variable known as the foreign currency supply. As a result, it includes the whole quantity of foreign money that the central bank distributes via financial institutions and that comes from remittances (RBZ, 2023; Adediyan, 2020). This variable represents the amount of foreign currency available in the economy.
- **RM:** This is the primary independent variable, representing the inflow of money from Zimbabweans living abroad to their home country. It is measured as the total value of remittances received annually (Molapo, (2020), and RBZ, (2023).
- **FDI:** The Foreign Direct Investment control variable in this study will investigate how the level of FDI receipts influences the level of foreign currency receipt in the country (Awe, 2013 and RBZ, 2023).
- **EXP:** Export receipts control variable. Trade Balance: The difference between exports and imports can affect the foreign currency supply, as a trade surplus or deficit influences the amount of foreign currency entering or leaving the economy.This study will explore how export receipts affect.
- Exchange Rate: The value of the Zimbabwean dollar relative to other major currencies. Changes in the exchange rate can influence the amount of foreign currency in circulation.
- Inflation Rate: High inflation can erode the value of domestic currency, potentially leading to an increased reliance on foreign currency.
- Gross Domestic Product (GDP): The overall economic performance of Zimbabwe might affect the inflow of remittances and the demand for foreign currency.
- Interest Rates: Domestic interest rates can influence the flow of foreign currency, as higher rates might attract foreign investment, increasing the foreign currency supply.
- Diaspora Population Size: The number of Zimbabweans living abroad can impact the total remittances sent back home.

- Government Policies on Remittances: Any policies that encourage or restrict the inflow of remittances, such as tax incentives or foreign exchange controls.
- Political Stability: Political events and stability can affect investor confidence and the flow of remittances, influencing foreign currency supply.
- Foreign Direct Investment (FDI): Inflows of FDI can also impact the foreign currency supply

Data Sources and Model Specification

This study used secondary data from reputable national and international institutions such as the Central Bank, World Bank, Zimstats, and ZIMRA.

Statistical Analysis

The study used the OLS model to estimate the coefficients and explore the nexus between Remittance and Foreign currency supply in Zimbabwe during the period under review.

Model 1
FXS = F(RM, FDI, EXP, MK, WR, MG, SEM, MAM,HP,EL, SMH, ECR)

$$FXS = \beta_0 + \beta_1 MK + \beta_2 WU_2 + \beta_3 WR + \beta_4 MG + \beta_5 SEN + \beta_6 MAM + \beta_7 HP + \beta_8 EL + \beta_9 SMH + \beta_{10} ECR + \mu$$

Where:
The variables are explained in Table 3, and their description as they are measured in the study.
β_0: represents a constant
β_1 to β_n: represents the regression coefficient
μ: represents the disturbance error term

The table below explains the variable that we used in the study.

Table 3: Study period 2009 to 2022 - No of years 14 years

Variable	Description	Measurement	Proxy	Data Source
Foreign Currency Supply (FXS)	Represents the total amount of foreign currency available in Zimbabwe's economy.	Measured as the annual foreign exchange reserves held by the central bank or in the financial system.	Foreign Exchange Reserves	Reserve Bank of Zimbabwe (RBZ), World Bank, IMF
Remittances (RM)	The total amount of money sent by Zimbabweans living abroad to their home country.	Annual total remittance inflows in USD.	Remittance Inflows	World Bank, International Organization for Migration (IOM)
Exchange Rate (EL)	The value of the Zimbabwean dollar relative to major foreign currencies.	Average annual exchange rate (USD/ZWL).	Exchange Rate (USD/ZWL)	Reserve Bank of Zimbabwe (RBZ), World Bank
Inflation Rate (MK)	The rate at which the general level of prices for goods and services is rising in Zimbabwe.	Annual percentage change in the Consumer Price Index (CPI).	Inflation Rate	Zimbabwe National Statistics Agency (ZIMSTAT), World Bank
Gross Domestic Product (GDP)	The total monetary value of all goods and services produced within Zimbabwe in a given year.	Annual GDP in USD.	GDP (constant USD)	World Bank, Zimbabwe National Statistics Agency (ZIMSTAT)

Interest Rates (SEM)	The cost of borrowing money, typically set by the central bank, affecting investment and consumption.	Annual average interest rate set by the Reserve Bank of Zimbabwe (RBZ).	Interest Rate	Reserve Bank of Zimbabwe (RBZ)
Government Policies on Remittances (HP)	Policies and regulations implemented by the government to encourage or restrict remittance inflows.	Qualitative analysis based on policy documents and changes in remittance-related legislation.	Policy Index	Government of Zimbabwe, Reserve Bank of Zimbabwe (RBZ)
Trade Balance (EXP)	The difference between Zimbabwe's exports and imports, influencing foreign currency inflows or outflows.	Annual trade surplus or deficit (USD).	Trade Balance (Exports - Imports)	Zimbabwe Revenue Authority (ZIMRA), World Bank
Foreign Direct Investment (FDI)	Investment by foreign entities in Zimbabwe impacts foreign currency supply.	Annual FDI inflows in USD.	FDI Inflows	Zimbabwe Investment Authority (ZIA), World Bank
Economic Growth Rate in Remitting Countries (SMH)	The overall economic performance of countries where Zimbabwe's diaspora resides affects remittances.	Annual GDP growth rate (%) of major remitting countries (e.g., South Africa, UK, USA).	GDP Growth Rate in Remitting Countries	World Bank, International Monetary Fund (IMF)

Data Presentation and Analysis

To evaluate the validity and dependability of the data collected for the study, several tests were run using the e-view econometric program. Model estimate, unit root, and autocorrelation are all included. In order to define the model and guarantee that all outliers were minimised, all diagnostic tests were carried out.

Autocorrelation Test

The study of the degree of correlation between the same variables and two subsequent time variables in a regression model is the autocorrelation test, according to Gujarati (2008). The Durbin-Watson test was used to assess the correlations among all the variables included in the research.

The results are shown in the table below:

Table 4: Durbing-Watson test results

R-squared	0.756934	Mean dependent Var	1.23 E+16
Adjusted R-square	0.486861	SD dependent Var	2.03E+16
SE of regression	1.46 E+16	Akaike infor criterion	77.57303
Sum Squared resid	1.91E+33	Schwarz criterion	78.12068
Log Likelihood	- 764.7303	Hunnan-Quinn criterion	77.67994
F Statistic	2.802679	Durbin-Waston stats	2.223420
Prob (F statistics)	0.068196		

A value of 2 indicates no autocorrelation, values below 2 indicate positive autocorrelation and values over 2 indicate negative autocorrelation. These are the range of states in the multiple regression model rule of thumb. Therefore, the above results show that

when the DW is greater than two, there is a negative autocorrelation, also known as negative serial correlation, which shows that the time series exhibits a pattern where an increase follows a decrease in the previous period in the next period. It suggests that the variables negatively impact the model.

Unit root test

If time-series data or variables are not stationary, they may be made stationary again by running a unit root test using an autoregressive model. According to Gujarati (2008), the data may be regarded as stationary if the researcher consistently finds the same variables or data values across time. The augmented Dicky Fuller test (ADF), which tests for stationarity on the variables utilised in the research, was then employed to undertake an empirical examination of the time series characteristics. The results are shown in the table below:

Table 5: Unit root test results.

Variable	t-Statistic	p-Statistic	Order of Integration
WU	-9.025751	0.00	I (1)
MAM	-6.796031	0.00	I (1)
MG	-4.439242	0.0149	I (1)
WR	-2.886815	0.0704	I (0)
MK	-9.093494	0.00	I (1)
SEN	-10.45410	0.00	I (1)
HP	-7.700430	0.00	I (1)
ECR	-6.039361	0.0007	I (1)
EL	-7.344975	0.00	I (1)
SMH	-6.885421	0.00	I (1)

Source: Authors' compilation

The results of the ADF test show the stationarity properties of different research variables. The results indicate that every variable, except global remit (WR), which was stationary at level 1 (0), was stationary at first difference 1(1). Based on the above results, the researcher concluded that the variables show stationarity at 5% significance.

Long-run Relationship Estimation

The long-run association between the variables was then estimated once the unit root test was completed. These results can only show the connection between MTAs and the foreign exchange supply. The table that follows displays the findings.

Table 6: Summary of regression results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECR	-6.682046	12.20861	-0.547322	0.5975
EL	18.63705	24.78663	0.751899	0.4713
HP	12.90740	21.75879	0.593204	0.5677
MAM	-11.07603	13.44934	-0.823537	0.4315
MG	0.909857	9.185465	0.099054	0.9233
MK	-46.91769	20.14866	-2.328576	0.0449
SEN	-17.67958	33.54075	-0.527108	0.6109
SMH	-4.164998	19.21175	-0.216794	0.8332
WR	17.12726	11.40320	1.501970	0.1674
WU	37.90556	19.42022	1.951861	0.0827
C	7.06E+08	2.76E+08	2.561866	0.0306

Durbin-Watson test: 1.88129; R-squared: 0.891897; adjusted R-squared: 0.771784.
Source: Owner compilation

As a result, the following linear regression model was used in this study:

$$FXS = \beta_0 - 46.91769\,MK + 37.90556\,WU2 + 17.12726\,WR + 0.909857\,MG - 17.67958\,SEN - 11.07603\,MAM + 12.90740\,HP + 18.63705\,EL - 4.164998\,SMH - 6.682046\,ECR + \mu$$

Interpretation and Discussion of Results

A positive or negative symbol was created to express the degree of power of each variable and the model on the effectiveness of money transfer agencies. It allowed for a clear interpretation of the study results based on the size of the regression coefficient. The regression analysis of the effect of MTNs (remittance) on forex supply from 2013–2022 revealed that all the independent variables were statistically significant except for MK, for which the P value was less than 0.05%, as depicted in the table above. Our results show that EL, HP, MG, WR and WU positively affect the foreign currency supply; thus, an increase in the above variables will increase the foreign currency supply, but the variables are statistically insignificant. On the other hand, ECR, MAM, MK, SEN and SMH have a negative relationship with the foreign currency supply, and only MK is statistically significant. This negative relationship means that an increase in these variables will cause a decrease in the foreign currency supply.

After considering the primary goal of the investigation, Gujarati (2009) concluded that the coefficient of determination assesses the research model's goodness of fit. Thus, the research concluded that the model considerably impacted achieving the study's goal, as shown by its coefficient of determination of 0.891897. According to the study's conclusion, money transfer agencies (MTAs) made up 89.19% of Zimbabwe's foreign exchange supply during and after the financial crisis, according to the study's conclusion, which was reached between 2013 and 2022. As the error term suggests, other forex sources, including dividend retention, export earnings, and foreign direct investment, were responsible for the potential variation of 10.81% between the two variables. Remittances substantially impact the supply of foreign currency, particularly to emerging financial markets, according to research by Gwatidzo (2017)

and International Immigration (2022), which validate this fact. However, the corrected R squared was 77.18%, which told us that the study model was good enough to spread the word about MTAs' effectiveness in the foreign exchange supply, especially in Zimbabwe. The following graphic illustrates how the model's total impact was calculated:

The overall efficacy of MTAs to supply forex in Zimbabwe (2013 to 2022)
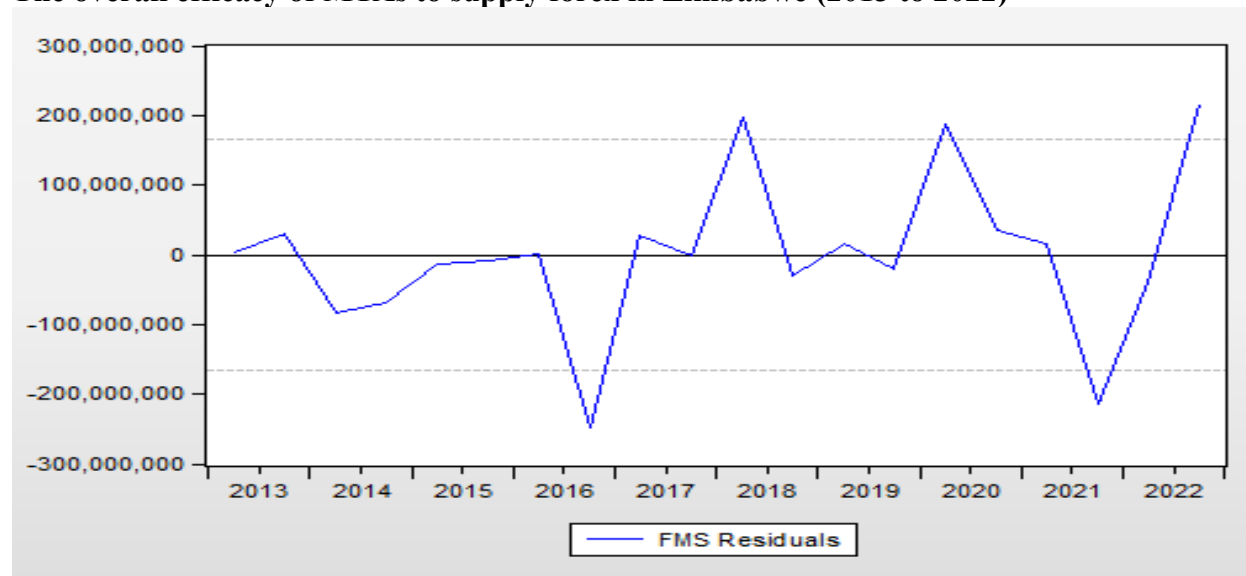
Sources: Researcher E-views computation

Based on residual fitted data, the accompanying graph illustrates how well remittances (MTAs) provided foreign money semiannually from 2013 to 2022. From 2013 to 2016, remittance statistics declined progressively. From 2016 to 2018, they significantly surged. From 2018 to 2019, the volume declined to less than $100,000,000. Additionally, they have been erratic since 2019, when there was a noticeable spike, and continuing to do so through 2021 and 2022.

CONCLUSION AND RECOMMENDATIONS

In light of the 2013–2022 financial crisis, this research examined how money transfer services affected Zimbabwe's foreign exchange supply. We employed a multiple linear regression model to estimate the efficacy of money transfer agencies in the country. We found that remittances, as a source of foreign currency, had an 89.19% effect in Zimbabwe. After doing research, the study concluded that money transfer services, or remittances, are essential for providing foreign exchange to underdeveloped nations like Zimbabwe. According to Gwatidzo (2017), MTAs have a major impact on foreign exchange. These findings are in line with his findings.

The researcher makes recommendations regarding the study's findings, outcomes, and conclusions.

- Remittances, or MTAs, are a highly important source of foreign currency for Zimbabwe's financial system; thus, it is important to treat them respectfully.
- In order to boost the remittance industry and improve the formal market, regulators need to do more than just issue directives and circulars. Instead, they ought to lower transaction costs.
- In order to maintain the operations of central banks, the report also suggests stringent measures that encourage the usage of local currency. Because there is a dearth of empirical

data from the African region, this study suggests that further research be done on international remittances in poor nations.

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