ASYMMETRIC IMPACT OF REMITTANCE INFLOWS ON DOMESTIC INVESTMENT IN ZIMBABWE [1]

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ABSTRACT

Purpose: This study examines the asymmetric relationship between remittance inflows and domestic investment in Zimbabwe, using a dataset spanning the period from 1990 to 2023. The economic development of Zimbabwe, like in many other developing countries, has been hindered by limited domestic investment capacity and volatile economic growth. Although the country has turned to foreign investors, the pace of foreign investment has not reached the level required for its long-term growth target and sustainable development. On the contrary, over the years, the country has seen a significant growth in remittance inflows.

Methodology: The study utilised a non-linear autoregressive distributed lag (NARDL) approach to analyse the relationship between remittances and domestic investment.

Results: The study found that positive shocks to remittances are positively associated with domestic investment in the short run. Likewise, the negative shocks to remittances and domestic investment were also found to move in the same direction, but only in the long run.

Conclusions: Positive shocks to remittance inflows have a greater impact on domestic investment in the short run, while negative shocks have a greater impact in the long run.

Recommendations: Policy makers need to complement remittance inflows with long-term investment policies to maintain sustainable domestic investment growth in Zimbabwe.

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1. INTRODUCTION

According to the International Organization for Migration (2024), international remittances increased by 650 percent between 2000 and 2022, rising from USD 128 billion to USD 831 billion. Remittances have continued to grow, surpassing foreign direct investment and becoming a major source of foreign revenue inflow for developing countries (Migration Data Portal, 2025). The significant increase in remittances is due to an increase in the number of migrants, as well as a strong sense of responsibility among immigrants to support their families back home. In 2020, an estimated 281 million international migrants were recorded globally, accounting for 3.6 percent of the global population (International Organization for Migration, 2024). Remittances to low- and middle-income countries are estimated to have increased by 0.7% in 2023, reaching USD 656 billion (Migration Data Portal, 2025). The inclusion of remittance-related goals in the Sustainable Development Goals: Goal 10.7.1, 17.3.2, and 10.c.1, was successfully negotiated by the Global Knowledge Partnership on Migration and Development, hosted by the World Bank (World Bank Group, 2024). Remittance inflows to SSA have also shown steady growth over the years, increasing by 1.9% in 2023 (World Bank, 2023).

Zimbabwe has benefited from this growth, with remittances becoming a lifeline for many families in a country grappling with numerous economic challenges. Despite the rise in remittances, the impact on domestic investment remains underexplored. Unfortunately, the majority of the previous studies focus mainly on the increase in consumption driven by remittances. Limited research has investigated how remittances influence domestic investment. This is particularly crucial for a country like Zimbabwe, which faces challenges in raising sufficient funds to support investment and drive much-needed economic growth.

Studies exploring the impact of remittances on domestic investment are still growing. Most studies in existing literature have found that remittances positively influence domestic investment (see Pal, 2024; Agbafor, Edeh and Nwaobi, 2024; Ali and Alpaslan, 2017). However, there are other studies that suggest that remittances have a neutral impact on domestic investment (see, Gautam, 2024; Magwedere and Marozva, 2024; Edeh, Nwannediuto and Njeze, 2023), while other studies have found a negative impact (see, for example, Tung, 2018).

The variation in these findings presents an inconclusive stance on the role remittances can play in boosting domestic investment, both in general and specifically in Zimbabwe. Given the significant role remittances have played in supporting domestic consumption, policymakers can harness these resources to boost investment. This is only possible through empirical analysis to establish

whether a relationship exists between the two. This study, therefore, examines the impact of remittances on domestic investment in Zimbabwe using a non-linear autoregressive distributed lag approach. The findings of this study will contribute to policy formulation aimed at channelling remittances towards investment, rather than consumption expenditure.

Zimbabwe was selected for this study because it presents an interesting case, with remittances becoming an important source of external funding. The study aims to explore whether remittances can be harnessed to boost domestic investment in Zimbabwe. The findings from this study will provide valuable insights to other developing countries on the role remittances can play in addressing domestic challenges, such as the decline in savings necessary to support investment needs.

The study is structured as follows: Section 2 provides an overview of country-specific dynamics on remittances and domestic investment. Section 3 covers a summary of the empirical literature. Section 4 dwells on data analysis, and the discussion of the empirical results and Section 5 concludes the study.

2. REMITTANCE INFLOWS AND DOMESTIC INVESTMENT DYNAMICS IN ZIMBABWE

The Zimbabwe Investment Development Agency (ZIDA), which was established through the ZIDA Act, was created to facilitate both foreign and domestic investment in Zimbabwe. The Act repealed the Joint Venture Act, the Special Economic Zones Act, and the Zimbabwe Investment Authority Act (ZIDA, 2025). The agency facilitates investment through a one-stop investment centre. The main objectives of ZIDA include reviewing, promoting, and recommending public-private partnerships; promoting investment in Zimbabwe and providing aftercare and monitoring to investors; planning, promoting, and implementing investment promotion strategies; and establishing and regulating Special Economic Zones (SEZs), among other objectives (ZIDA, 2025). The Indigenisation and Economic Empowerment Policy is anchored in the Indigenisation and Economic Empowerment Act of 2007, which provides a legal framework for the economic empowerment of indigenous Zimbabweans. Under this policy, foreign companies were required to cede 51% of their shares to indigenous Zimbabweans in certain sectors, although the policy was later relaxed to attract foreign investment.

The Zimbabwean government adopted an ‘open for business’ policy in 2018, welcoming foreign investment into the country. This policy demonstrated the government’s willingness to support foreign investment and its commitment to creating an environment that allows foreign investors to thrive. To attract

investment, the government offers various incentives. For example, in 2023, the business foreign exchange surrender requirement to the Reserve Bank of Zimbabwe was reduced from 20% to 15% (US Department of State, 2023). Other incentives include tax breaks and exemptions, depending on the sectors such as mining, manufacturing, agriculture, and Special Economic Zones (US Department of State, 2023).

Although more needs to be done, the government has shown a commitment to developing infrastructure to support both foreign and domestic investment. In the early 1990s, Zimbabwe was one of the countries with the best infrastructure in the region. However, limited public investment and a lack of regular maintenance have contributed to the deterioration of this infrastructure (African Development Bank Group, 2011). The government also advocates for local content requirements from both domestic and foreign firms. This policy aims to support locally produced products, reduce unemployment, and address shortages of basic commodities. In addition to access to finance in the domestic financial sector, the government has established various funding programs, including the National Social Security Authority (NSSA) Investment Funds, tourism investment incentive programs, and the Zimbabwe Microfinance Fund (ZMF).

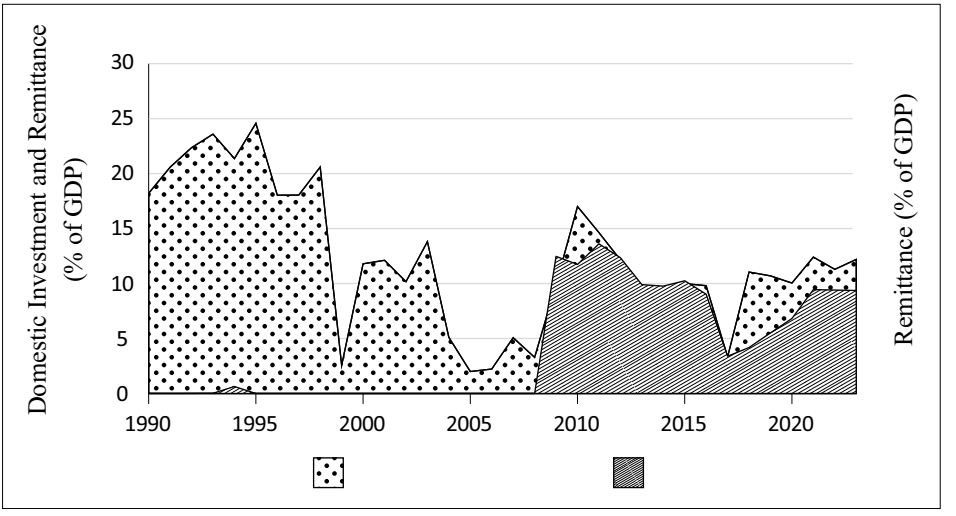
The country has implemented policies to encourage investment; however, factors such as unstable regulatory and policy environment, electricity shortages, low political credibility, policy inconsistence, foreign exchange shortages, a deteriorating economy and weak institutions have negatively affected investment in general, and domestic investment in particular (International Trade Administration, 2024).

In the remittance front, the Reserve Bank of Zimbabwe (RBZ) plays a key role through exchange controls to manage remittance inflows into the country. The policies pursued by RBZ are designed to facilitate the inflow of remittances. The RBZ promotes remittances through formal channels, which are regulated by banks, such as Western Union, EcoCash, and MoneyGram. EcoCash is one of the most popular channels for sending and receiving remittances in Zimbabwe. Recipients are also allowed to convert the funds into Zimbabwean dollars or transact in foreign currency. The foreign currency retention policy enables companies and individuals to retain a portion of their earned or remitted funds in a foreign currency. This enables funds to be preserved during periods of hyperinflation and exchange rate volatility, hence promoting the use of formal channels for remittances.

While the country faces challenges related to exchange rate volatility, the RBZ plays a crucial role in managing the exchange rate and formulating an Exchange

Rate Policy (RBZ, 2025a). The Zimbabwean government recognises the key role played by remittances as a lifeline for many families facing economic challenges; consequently, no direct tax is levied on remittances. Indirect taxes, such as VAT, are only paid by remittance recipients at the point of purchase. With the introduction of the multicurrency system, individuals can also transact in foreign currency and are able to open foreign accounts with local banks (RBZ, 2025b). These foreign exchange accounts encourage foreign currency holders to keep their money within the formal system. In 2019, the government introduced the Zimbabwe National Diaspora Policy, which encourages the diaspora to remit and invest back home. The Diaspora Investment Fund pools resources from the diaspora to finance investments in key sectors of the economy. To mobilise investment funds from the diaspora, the central bank introduced a diaspora bond denominated in foreign currency. These funds are earmarked for infrastructure projects and advancing economic development. The dynamics of domestic investment and remittances are illustrated in Figure 1.

Figure 1: Trends in domestic investment and remittance inflows (1990-2023)



Source: World Bank (2025)

As reported in Figure 1, Zimbabwe's domestic investment has fluctuated throughout the study period, spanning from the 1990s to 2023. Although the domestic investment exceeded 20% during the 1990s, that benchmark has not been surpassed in subsequent years. Remittance inflows remained relatively low from 1990 to 2009 (World Bank, 2025). However, there was a significant increase in remittance inflows from 2009, which coincided with the financial

crisis, thereby peaking at 13.6% of GDP in 2011 (World Bank, 2025). Over the study period, the country received an average of 4% of GDP in remittances (World Bank, 2025).

3. EMPIRICAL LITERATURE

Remittances can be categorised into compensation of employees, personal transfers, and social remittances (Migration Data Portal, 2025). Compensation of employees refers to the income earned by migrant workers while working in the host country, whereas social remittances encompass social capital, including identities, behaviours, ideas, new technological skills, policy reforms, and knowledge, among other forms of social capital. Literature identifies three primary motives for migrants to remit back home: altruism, co-insurance, and the savings motive (Lucas and Stark, 1985). Remittances have become a significant source of external funding for most developing countries, with no repayment obligations. Despite their important role, there is a dearth of literature on the impact of remittances on domestic investment. Therefore, this study reviews existing research on the impact of remittances on domestic investment.

Pal (2024), in a study on developing countries in Latin America, the Caribbean, and South Asia using data from 1984 to 2021, employed fully modified ordinary least squares (FMOLS) and Dynamic System Generalized Method of Moments (GMM) and found that remittances positively influence domestic investment across all these regions. Similarly, Agbafor, Edeh and Nwaobi (2024), using panel data from 1998 to 2022, also found that remittances support domestic investment. In line with these findings, Abubakar and Folawewo (2019), examining the impact of remittances on household consumption in Nigeria with disaggregated remittance data from the Harmonized Nigerian Living Standard Survey (2009/2010) and using ordinary least squares (OLS) and probit models, discovered that remittances positively influence household investment, with a higher impact in urban areas compared to rural areas. Specifically, cash transfers increased urban household investment by 13% and rural investment by 7.3%. Food remittances were found to contribute positively to investment in both rural and urban areas, with a more significant impact in urban areas. Ali and Alpaslan (2017) found bidirectional causality in the long run between remittances and domestic investment for 47 developing and emerging economies. Adams and Cuecuecha (2013), in a study on Ghana, found that remittances increased consumption of investment goods like education, health, and housing. Balde (2011), in a study covering 37 and 34 Sub-Saharan African countries from 1980 to 2004, found that remittances positively influenced both investment and

consumption. Lastly, Gheeraert, Mata, and Traca (2010) found that remittances had positive effects on formal investment in developing countries.

Apart from studies that found a positive contribution of remittances to domestic investment, there are some studies that have found a negative or insignificant relationship between the two. For example, Tung (2018), in a study on the Asia-Pacific region, found remittances to have a negative impact on domestic investment. Gautam (2024), examining the impact of remittances on investment in Nepal using a sample of 404 respondents, found no significant association between different types of investments, such as land purchases, housing construction, and business investment. Magwedere and Marozva (2024), while using a panel autoregressive distributed lag model and data from 2000 to 2021 for a sample of 30 African countries, found remittances to be insignificant in supporting domestic investment. Similarly, Edeh, Nwanediuto and Njeze (2023) analysed the impact of remittances on domestic investment in Nigeria using data from 1981 to 2020 and found an insignificant impact in both the short and long run.

Overall, studies examining the impact of remittances on domestic investment have produced mixed results, although most confirm a positive relationship. Given that many African countries face challenges related to limited domestic savings to support investment needs, while simultaneously experiencing a surge in remittance inflows, it is crucial to re-examine the nature of the relationship between remittances and domestic investment, particularly in Zimbabwe.

4. DATA AND METHODOLOGY

In this study, we employ the non-linear autoregressive distributed lag (NARDL) model to examine the impact of remittances on domestic investment in Zimbabwe. Developed by Shin et al. (2014), the NARDL approach extends the ordinary ARDL model by accounting for asymmetric effects, where positive and negative shocks to remittances are expected to have different impacts on domestic investment. Since the NARDL captures the impact of remittances by splitting them into partial sums of positive and negative shocks, it yields more robust results compared to the standard autoregressive distributed lag (ARDL) model. Building on Tung (2018) with modifications to some of the variables, this study incorporates trade openness, inflation, foreign direct investment, GDP per capital, and savings as control variables.

Variable definition

The primary variables in this study are remittance inflows (REM), measured as a percentage of GDP, and domestic investment (DINV), measured by gross fixed capital formation as a percentage of GDP. To avoid specification bias, other variables included in the model are GDP per capita (y/N), inflation (INF), savings (SV), measured by gross savings as a percentage of GDP, foreign direct investment (FDI), proxied by FDI inflows as a percentage of GDP, and trade openness (TOP), proxied by the sum of exports and imports as a percentage of GDP. These control variables have been included because they significantly influence the level of domestic investment, alongside remittance inflows. Their inclusion in our model is also supported by relevant literature. Several previous studies have employed these variables, including Agosin and Machado (2005) in the case of FDI; Tung (2018) in the case of savings and trade openness; Keho (2023) in the case of economic growth (real GDP per capita); and both Ezeibekwe (2020) and Agosin and Machado (2005) in the case of inflation, among others.

Model specification and data

The general model specification is given in Equation 1.

$$DINV = f\left(\text{REM}, \text{TOP}, \text{y/N}, \text{INF}, \text{SAV}, \text{FDI}\right) \quad \text{.....(1)}$$

Where:

DINV = domestic investment
TOP = trade openness
y/N = GDP per capita
INF = inflation
SAV = savings
FDI = foreign direct investment

The positive and negative decomposition of remittances (REM) in Equation 2 are expressed in Equations 3 and 4.

$$REM_t = \rho_0 + REM_t^+ + REM_t^- \quad \text{.....(2)}$$

Where:

$$REM_t^+ = \sum_{j=1}^{t} \Delta REM_t^+ = \sum_{j=1}^{t} \max\left(\Delta REM_j; 0\right) \quad \text{.....(3)}$$

$$REM_t^- = \sum_{j=1}^{t} \Delta REM_t^- = \sum_{j=1}^{t} \min\left(\Delta REM; 0\right) \quad \text{.....(4)}$$

Based on the equations above, the NARDL model can be expressed as:

$$\begin{aligned}\Delta DINV_t = {} & \delta_0 + \sum_{i=1}^{p} \alpha_{1i} \Delta DINV_{t-i} + \sum_{i=0}^{q1} \alpha_{2i}^{+} \Delta REM_{t-i}^{+} + \sum_{i=0}^{q2} \alpha_{3i}^{-} \Delta REM_{t-i}^{-} + \sum_{i=0}^{q3} \alpha_{4i} \Delta TOP_{t-i} \\ & + \sum_{i=0}^{q4} \alpha_{5i} \Delta y / N_{t-i} + \sum_{i=0}^{q5} \alpha_{6i} \Delta INF_{t-i} + \sum_{i=0}^{q6} \alpha_{7i} \Delta SAV_{t-i} + \sum_{i=0}^{q7} \alpha_{8i} \Delta FDI_{t-i} \\ & + \beta_1 DINV_{t-1} + \beta_2^{+} REM_{t-1}^{+} + \beta_3^{-} REM_{t-1}^{-} + \beta_4 TOP_{t-1} + \beta_5 y / N_{t-1} \\ & + \beta_6 INF_{t-1} + \beta_7 SAV_{t-1} + \beta_8 FDI_{t-1} + \gamma_{1t} \end{aligned} \quad \text{....(5)}$$

Where:
α_0 = constant; α_1-α_8 = short-run coefficients; β_1-β_8 = long-run coefficients; and γ_{1t} = error term.

The NARDL error correction representation of Equation 5 is given in Equation 6.

$$\begin{aligned}\Delta DINV_t = {} & \delta_0 + \sum_{i=1}^{p} \alpha_{1i} \Delta DINV_{t-i} + \sum_{i=0}^{q1} \alpha_{2i}^{+} \Delta REM_{t-i}^{+} + \sum_{i=0}^{q1} \alpha_{3i}^{-} \Delta REM_{t-i}^{-} + \sum_{i=0}^{q3} \alpha_{4i} \Delta TOP_{t-i} \\ & + \sum_{i=0}^{q4} \alpha_{5i} \Delta y / N + \sum_{i=0}^{q5} \alpha_{6i} \Delta INF_{t-i} + \sum_{i=0}^{q6} \alpha_{7i} \Delta SAV_{t-i} + \sum_{i=0}^{q7} \alpha_{8i} \Delta FDI_{t-i} \\ & + \lambda ECM_{t-1} + \gamma_{2t} \end{aligned} \quad \text{....(6)}$$

Where:

ECM = Error correction term,

Data sources

The data used for this study were obtained from the World Development Indicators database and the Federal Reserve Bank of St. Louis Economic Research resources (2024).

5. EMPIRICAL RESULTS

The Dickey-Fuller Generalized Least Squares (GLS) and Phillips-Perron (PP) tests were used to check for stationarity. The results of the stationarity tests are presented in Table 2.

Table 1: Unit root test

	Dickey-Fuller Generalised Least Square (DF-GLS)		Phillips-Perron (PP)	
Variable	Level	Δ	Level	Δ
DINV	-2.400720	-3.278862**	-0.911636	-8.965335***
INF	-2.477600	-5.946921***	0.304151	-6.188558***
y/N	-2.208174	-3.647500**	-0.436202	-4.467448***
FDI	-2.099036	-5.030115***	-0.996760	-9.069678***
SAV	-2.754438	-7.067713***	-3.829040***	-
TOP	-1.822865	-6.972141***	-2.330748	-9.854454***
REMIT	-2.140815	-4.335967***	-1.183940	-6.993981***

Notes: *, ** and *** denote statistical significance at 10%, 5% and 1% levels, respectively. Δ denotes first difference.

Source: EViews 13 Output

The stationarity tests reported in Table 1 confirm that all the variables in the model are stationary either in levels or first difference. The long-run relationship among the variables was also tested, and the results are presented in Table 2.

Table 2: Cointegration test

Dependent variable	F-Statistic			Cointegration Status		
DINV	4.591837***			Cointegrated		
	Asymptotic critical values					
	10%		5%		1%	
	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)
	1.700	2.830	1.970	3.180	2.540	3.910

Notes: *** denotes statistical significance at 1% level.

Source: EViews 13 Output

The F-statistic of 4.591837 was compared to the bound critical values, which are also presented in Table 2. Since the F-statistics exceed the upper bound at the 1% level of significance, this confirms the presence of cointegration among the variables included in the model. Table 3 presents the asymmetric results for both the short run and long run, confirming the presence of asymmetry in both time periods.

Table 3: Long- and short-run asymmetry results

Test	F-statistic	P-value	Decision
W_{LR}	13.73140***	0.0009	Asymmetric
W_{SR}	8.313893***	0.0075	Asymmetric

1) *, ** and *** denote statistical significance at 10%, 5% and 1% levels, respectively
2) = long-run asymmetric test
3) = short-run asymmetric test

Source: EViews 13 Output

Non-linear autoregressive distributed lag short run and long run results are reported in Table 4. The optimal lag selection used in the model was done using the Schwarz Bayesian Information Criteria (SIC) that gives the most parsimonious model.

Table 4: NARDL Results

Dependent Variable is DINV		
Panel A: Long-Run Results		
Regressor	Coefficient	T-ratio [p-value]
REM^+	-1.011040	-1.425484 [0.1629]
REM^-	1.914280*	1.810323 [0.0788]
TOP	-0.233863***	-3.083215 [0.0040]
y/N	0.019855***	5.055042 [0.0000]
INF	0.064863***	3.177804 [0.0031]
SAV	-0.156914	-1.108945 [0.2750]
FDI	9.909552**	2.370870 [0.0234]
Panel B: Short-Run Results		
Regressor	Coefficient	T-ratio [p-value]
ΔREM^+	1.832311***	5.660422 [0.0000]
ΔREM^-	-0.674576	-0.871131 [0.3896]
ΔTOP	0.317225***	5.788162 [0.0000]
$\Delta Y/N$	0.011045***	4.557052 [0.0001]
ΔINF	0.013685***	3.573564 [0.0011]
ΔSAV	0.091013**	2.052192 [0.0477]
ΔFDI	1.144938	0.999086 [0.3246]
ECM(-1)	-0.556294***	-6.776309 [0.0000]
Panel C: Test statistics and diagnostics		
R- Squared	0.679156	
R-Bar-Squared	0.624154	
F-statistics [Prob]	12.34787 [0.000000]	
Jarque-Bera Test [Prob]	0.452171 [0.797650]	

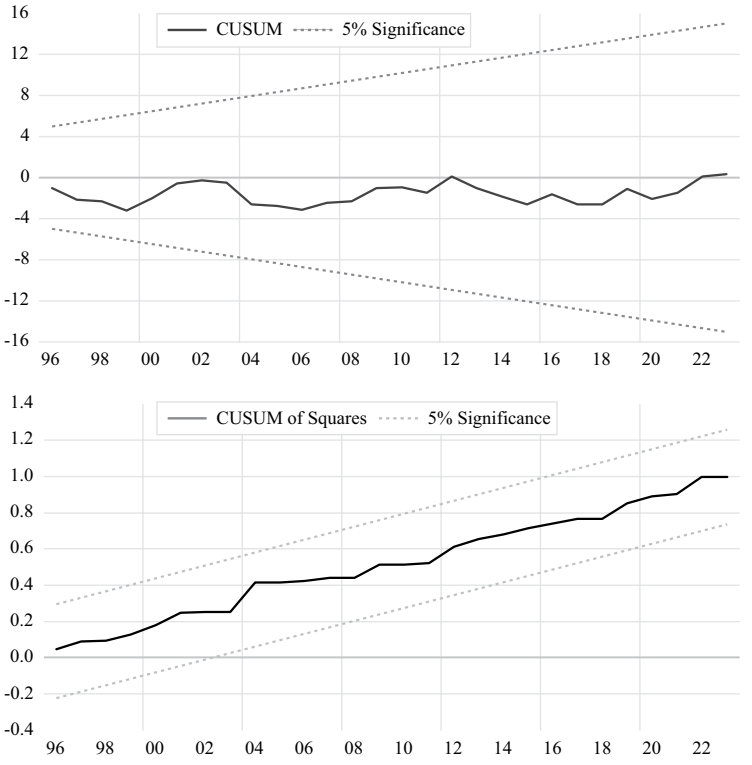
*, ** and *** denote statistical significance at 10%, 5% and 1% levels, respectively
_+ and _- denote positive and negative shocks.

Source: Source: EViews 13 Output

The results reported in Table 4, Panel A and Panel B, confirm that positive shocks in remittances are positively associated with domestic investment in the short run, but this effect is insignificant in the long run. This is evidenced by the coefficient on REM^{+}, which is positive and significant at the 1% level in the short run, but insignificant in the long run. According to the dynamic multiplier graph in Figure 3, positive shocks in remittance inflows have a pronounced impact on domestic investment in Zimbabwe in the short run. The negative shocks to remittance inflows are also found to be positively associated with domestic investment but only in the long run. This suggests that decreases in remittances and domestic investment tend to move in the same direction over time.

Other results reported in Table 4 confirm that trade openness has a negative impact on domestic investment in the long run but a positive impact in the short run. This is reflected in the coefficient of trade openness variable, which is negative and statistically significant in the long run, but positive in the short run. This indicates that the impact of trade openness on domestic investment is time-variant. The results also highlight the positive role of trade in boosting export revenues in Zimbabwe in the short run. However, in the long run, trade openness could lead to heightened competition, which may negatively affect the growth trajectory of domestic firms, potentially leading to closures. Gross domestic product per capita was found to have a positive impact on domestic investment both in the short and long run, emphasising the importance of sustained economic growth, coupled with moderate population growth, in raising investment funds. Inflation, on the other hand, was found to positively influence domestic investment regardless of the period considered. Savings were found to positively influence domestic investment in Zimbabwe, but only in the short run. Foreign direct investment (FDI) was found to have a significant positive impact on domestic investment only in the long run, suggesting that the government's open-door policy for foreign direct investment could have a favourable effect on domestic investment in the long run. The variables included in the study explain 68% of the variability in domestic investment in Zimbabwe. The error correction term was found to have a negative sign, as expected, with a coefficient of -0.5563, indicating that the model is convergent. This suggests that it takes approximately two years for the system to adjust and reach long-run equilibrium whenever there is a disequilibrium in the economy. Furthermore, the cumulative sum and cumulative sum of squares tests, as reported in Figure 2, confirm that the model remains stable at the 5% level of significance.

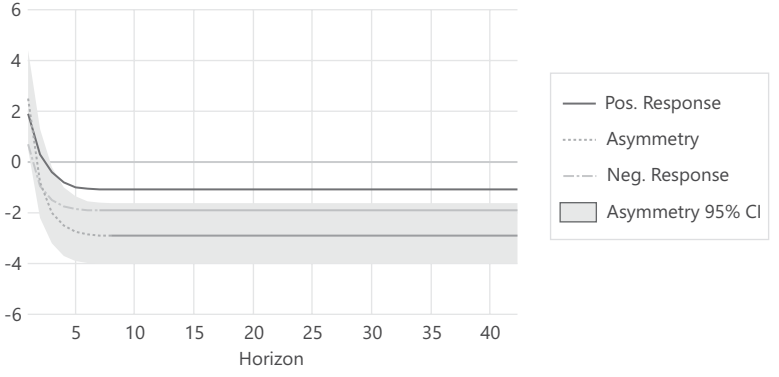
Figure 2: CUSUM and CUSUMQ



5% level of significance

Source: Source: EViews 13 Output

Figure 3: Cumulative Dynamic Multiplier: Remittance on Domestic Investment – Shock Evaluation



Source: EViews 13 Output

6. CONCLUSIONS

This study examines the asymmetric impact of remittances on domestic investment in Zimbabwe using annual data from 1990 to 2023. The study was motivated by the surge in remittance inflows at a time when the country faced the challenge of boosting domestic investment to spur economic growth. Departing from previous studies, this research explores the relationship between remittances and domestic investment using a non-linear autoregressive distributed lag (NARDL) model. This approach enables us to examine the impact of both positive and negative shocks on remittances and domestic investment, providing policymakers in Zimbabwe with more insightful information. The results confirm a positive association between increases in remittances and domestic investment in the short run, but not in the long run. Additionally, the study found that positive shocks in remittances have a more substantial impact on domestic investment in the short run. Decreases in remittances and domestic investment were also found to move in the same direction, but only in the long run. Consequently, it can be concluded that the effects of positive shocks to remittances on domestic investment in Zimbabwe are more pronounced in the short run. In contrast, the effects of the negative shocks are more pronounced in the long run. The findings of this study highlight the need for policymakers to complement remittance inflows with long-term investment policies to sustain domestic investment growth in Zimbabwe.

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Conflict of interest

The authors declare there is no conflict of interest.

REFERENCES

Abubakar, O. I., & Folawewo, A. (2019). The impact of remittances on household investment in Nigeria, *International Journal of Business and Economic Development*, *7*(2), 38-59. https://ijbed.org/details&cid=180

Adams, R. H., & Cuecuecha A. (2013). The impact of remittances on investment and poverty in Ghana. *World Development*, *50,* 24–40. https://doi.org/10.1016/j.worlddev.2013.04.009

African Development Bank Group, (2011). *Infrastructure and Growth in Zimbabwe: Action Plan for sustained Strong Economic Growth*. https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/1.%20Standalone%20Summary%20Report.pdf.

Agbafor, M. O., Edeh, C. E., & Nwaobi, O. V. (2024). Remittances and domestic investment in Sub-Saharan Africa: The role of exchange rate. *International Journal of Research and Scientific Innovation, XI*(VII), 801-813 https://doi.org/10.51244/IJRSI.2024.1107063

Agosin, M. R., & Machado, R. (2005). Foreign Investment in Developing Countries: Does it Crowd in Domestic Investment? *Oxford Development Studies, 33*(2), 149-162. https://doi.org/10.1080/13600810500137749

Ali, A., & Alpaslan, B. (2017). Is there an investment motive behind remittances? Evidence from panel cointegration. *The Journal of Developing Areas, 51*(1), 63-82. https://doi.org/10.1353/jda.2017.0004

Balde Y. (2011). The impact of remittances and foreign aid on savings/investment in Sub Saharan Africa. *African Development Review*, *23*(2), 247–262. https://doi.org/10.1111/j.1467-8268.2011.00284.x

Edeh, C. N., Nwanneduto, I. O., & Njeze, A. V (2023). Remittance-domestic Investment Nexus in Nigeria. *International Journal of economics and Financial Management*, *8*(2), 92-103. https://doi.org/ 10.56201/ijefm.v8.no2.2023.pg92.103

Ezeibekwe, O. F. (2020). Monetary Policy and Domestic Investment in Nigeria: The Role of the Inflation Rate. *Economics and Business, 34*, 139–155. https://doi.org/10.2478/eb-2020-0010.

Federal Reserve Bank of St Louis, 2024. *Federal Reserve Economic Data.* https://fred.stlouisfed.org/

Gautam, T. P. (2024). Exploring the impact of remittance inflows on investment patterns: A case study of Rupandehi district*, Nepal. International Research Journal of Parroha Multiple Campus (IRJPMC*), *3*(1), 1–12. https://doi.org/10.61916/prmn.2024.v03i01.001

Gheeraert, L., Mata, R. S., & Traca, D. (2010). Remittance and domestic investment in developing countries: An analysis of the role of financial sector development. CEB Working Paper No. CEB 10-013.RS, ULB - Universite Libre de Bruxelles.

International Organization for Migration, 2024. *World Migration Report 2024.* https://publications.iom.int/books/world-migration-report-2024.

International Trade Administration, (2024). *Zimbabwe Country Commercial Guide.* https://www.trade.gov/country-commercial-guides/zimbabwe-market-challenges.

Keho, Y. (2023). Impact of financial development on domestic investment: Evidence from West African countries. *African Development Review, 35*(3), 270-281. https://doi.org/10.1111/1467-8268.12709

Lucas, R., & Stark, O. (1985). Motivations to remit: Evidence from Botswana. *Journal of Political Economy, 93(5)*, 901–918. https://doi.org/10.1086/261341.

Magwedere, M. R., & Marozva, G. (2024). Remittances and domestic investment nexus: Evidence from a PMG-ARDL approach. *International Journal of Applied Economics, Finance and Accounting, 18*(1), 33-42. https://doi.org/10.33094/ijaefa.v18i1.1280.

Migration Data Portal (2025). Migration and Development: Remittances. https://www.migrationdataportal.org/themes/remittances.

Pal, S. (2024). The international capital flows and domestic savings-domestic investment nexus: Comparative evidence between heterogeneous developing regions, *South Asian Journal of Macroeconomics and Public Finance*, *13*(2), 169-212, https://doi.org/10.1177/22779787241245779.

RBZ (2025a). *Directives, Circulars and Orders.* https://www.rbz.co.zw/index.php/regulation-supervision/exchange-control/directives- circulars-and-orders.

RBZ (2025b). *Foreign Exchange Guidelines.,* https://www.rbz.co.zw/documents/mps/foreignexchange.pdf.

Shin, Y., Yu, B., & Greenwood-Nimmo, M. (2014). Modelling asymmetric cointegration and dynamic multipliers in a nonlinear ARDL framework. In W. C. Horrace & R. C. Sickles (Eds.), *Festschrift in honor of Peter Schmidt: Econometric methods and applications* (pp. 281–314). Springer. https://doi.org/10.1007/978-1-4899-8008-3_9

Tung, L. T. (2018). The impact of remittances on domestic investment in developing countries: fresh evidence from the Asia-pacific Region. *Organizations and Markets in Emerging Economies*, *9*(2), 193–211. https://doi.org/10.15388/omee.2018.10.00010.

US Department of State (2023). *2023 Investment Climate Statements: Zimbabwe*. https://www.state.gov/reports/2023-investment-climate-statements/zimbabwe/.

World Bank (2023). Remittance Inflows Continue to Grow in 2023 Albeit at Slower Pace. https://www.worldbank.org/en/news/press-release/2023/12/18/remittance-flows-grow-2023-slower-pace-migration-development- brief.

World Bank (2025). *World Development Indicators.* https://databank.worldbank.org/source/world-development-indicators.

World Bank Group, (2024). *Remittances.* https://www.worldbank.org/en/topic/migration/brief/remittances

ZIDA (2025). *About ZIDA*. https://zidainvest.com/about-zida/.

Appendix – Descriptive Statistics

	INV	REMIT	INF	FDI	y/N	SAV	TOP
Mean	13.03192	3.878038	57.62523	0.584566	1419.201	8.770218	62.07583
Median	12.30245	0.633979	2.644243	0.184802	1473.911	10.69842	62.47275
Maximum	24.57726	13.61150	921.5357	2.441511	1779.833	65.22188	109.5216
Minimum	2.000441	0.004048	-27.04865	-0.452540	798.7733	-21.46003	17.22512
Std. Dev.	5.961035	4.857159	175.4301	0.799868	243.4553	14.40208	17.90490
Skewness	-0.120515	0.724386	3.742454	1.065777	-0.698910	1.004474	0.134178
Kurtosis	2.383100	1.728082	17.15544	2.864421	2.894399	6.956117	3.098128
Jarque-Bera	0.767657	6.504256	448.7007	7.983325	3.438842	34.45178	0.142876
Probability	0.681248	0.038692	0.000000	0.018469	0.179170	0.000000	0.931054
Sum	547.3408	162.8776	2420.260	24.55177	59606.43	368.3492	2607.185
Sum Sq. Dev.	1456.891	967.2717	1261805.	26.23131	2430090.	8504.215	13144.00
Observations	42	42	42	42	42	42	42

АСИМЕТРИЧНИ УТИЦАЈ ПРИЛИВА ДОЗНАКА НА ДОМАЋЕ ИНВЕСТИЦИЈЕ У ЗИМБАБВЕУ

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САЖЕТАК

Сврха истраживања: Ова студија испитује асиметричан однос између прилива дознака и домаћих инвестиција у Зимбабвеу, користећи податке за период од 1990. до 2023. године. Економски развој Зимбабвеа, као и многих других земаља у развоју, био је ограничен недовољним капацитетом домаћих инвестиција и нестабилним економским растом. Иако се земља ослањала и на стране инвеститоре, прилив страних инвестиција такође није достигао ниво потребан за остваривање дугорочних циљева раста и одрживог развоја. Насупрот томе, током година забиљежен је значајан раст прилива дознака.

Методологија: У студији је примијењен нелинеарни ауторегресиони модел са дистрибуираним временским помаком (НАРДЛ) ради анализе односа између дознака и домаћих инвестиција.

Резултати: Резултати показују да су позитивни шокови у приливу дознака позитивно повезани са домаћим инвестицијама у кратком року. Такође је утврђено да се негативни шокови у приливу дознака и домаће инвестиције крећу у истом правцу, али само у дугом року.

Закључци: Позитивни шокови у приливу дознака имају већи утицај на домаће инвестиције у кратком року, док негативни шокови имају израженији утицај у дугом року.

Препоруке: Креатори економских политика треба да прилив дознака допуне дугорочним инвестиционим политикама како би се обезбиједио одржив раст домаћих инвестиција у Зимбабвеу.

Кључне ријечи: *дознаке, домаће инвестиције, нелинеарни ауторегресиони модел са дистрибуираним временским помаком (НАРДЛ), Зимбабве.*