

Original Article

# Exchange Rate Pass-Through to Unemployment in Sub-Saharan Africa: Evidence from Nigeria and South Africa

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**Abstract** - This study evaluates the exchange rate pass-through to unemployment in Africa using evidence from Nigeria and South Africa. The pass-through was analyzed using two different transmission channels: first, through exports to unemployment, and second, through imports to unemployment. Panel Structural Vector Auto-Regressive (SVAR) was employed to analyze the impact of the transmission on the unemployment rate using quarterly data spanning the period of 2007-2018. The findings of the study revealed that the exchange rate does not exert the desired impact on unemployment in Sub-Saharan Africa through the export and import channels, implying that depreciation in the exchange rate exacerbates the problem of unemployment in SSA. The study concludes that the pass-through channels of export and import possess the potentials to lower unemployment in Nigeria and South Africa; however, the latent effect through other intermediate variables is contrary, thereby inhibiting the pass-through. The study recommends amongst others that, first, export revenues should be channeled into more remunerative alternatives (such as power and transport networks) to drive investment in Sub-Saharan Africa; second, imports expenditure should not be discouraged. However, consumer goods should be substituted for capital goods in order to provide key inputs for the growing industrial sector in Sub-Saharan Africa.

**Keywords** – Exchange Rate, Unemployment, Pass-through, Sub-Saharan Africa, Panel SVAR.

## I. INTRODUCTION

Since the seminal work of [1], definition and measures of economic development have shifted away from its traditional indices of sustained increase in Gross Domestic Product (GDP) per capita and desirable structural changes. Attention is now focused on improvement in the quality of life as complementing these indicators traditionally used as the measures of economic and social development (e.g. [2] and [3]). In the main, there is nine quality of life indicators, namely, material living conditions, productive or main activity, health, education, leisure and social interactions, economic and physical safety, governance and basic rights, natural and living environment, and overall experience of life.

The second dimension, productive or main activity, which refers to gainful or recompensed work, has occupied a front burner in sub-Saharan Africa (SSA). With almost 200 million people between ages 15 and 24, Africa has the youngest population in the world, and is also growing rapidly [4]. Reference [4] projects that young people in Africa will double by 2045, resulting in what has recently been termed the “youth bulge” [5].

Hence, notwithstanding that 10 of the top 25 fastest growing economies in the world between 2004 and 2014 were in Africa, the unemployment surge, particularly among the youths, persists in SSA. Gallup surveys in 148 countries show that unemployment in SSA was 17 percent in 2011 while underemployment was highest in SSA by as much as 32 percent [6]. Other factors are that youths have little or no skills and are therefore largely excluded from a productive economic and social life. Those that have some education often exhibit skills irrelevant to the labor market, where education and skill requirements are increasing, resulting in millions of unemployed and underemployed youths [4].

That high economic growth is insufficient to guarantee productive employment for all shows the lack of capacities among these economies to rein in unemployment growth. Growth performance has thus declined from employment growth, presenting a major development challenge that requires strategic interventions that can lead to a rise in the rate at which jobs are being created to absorb the labor force's growth.

On the other hand, the real exchange rate has witnessed large fluctuations over the years. Since the global financial crisis of 2008 and its severe effects on the economies of the world, the real exchange rate has been declining while the unemployment rate has been increasing in Africa. And complete exchange rate pass-through (ERPT), which is a measure of how changes in the exchange rate are directly tied to the change in local prices, almost never happens; rather, incomplete ERPT is what actually occurs. Only part of the exchange rate is reflected in local prices, sometimes in a large proportion.



Given that SSA is the largest open economy in the world, based on the size of its GDP [3] and the fact that the economy has been susceptible to the exchange rate shocks on its macroeconomic variables, it is important to understand the dynamics of the REPT on unemployment. This will help in designing a monetary policy framework in response to the effects of the external shocks on the economy of SSA.

In this context, the objectives of the paper are to:

- Examine the response of unemployment in the face of monetary shocks on SSA.
- Measures and evaluate the ERPT to unemployment in SSA, evidence from Nigeria and South Africa.

Following this, introduction, the rest of the paper is structured as follows. Section 2 addresses the theoretical and empirical review. Section 3 gives attention to the methodology, while section 4 presents the empirical results and discussion. Section 5 proffers recommendations and concludes the paper.

## II. REVIEW OF RELATED LITERATURE

Theoretically, export is a function of the level of domestic prices, exchange rate, and production. Hence, a depreciation of the real exchange rate causes export to be cheaper and imports to be more expensive, and consequently, the exporting country would gain trade competitiveness. It would increase the number of exports. The increase in exports results in an increase in production, and this increases the demand for the workforce and, as a consequence, it has positive effects on employment [7] & [8].

On the flip side, an appreciation of the real exchange rate causes exports to become expensive and imports to be relatively cheaper. Hence the exporting country will lose trade competitiveness if they do not change their prices in the domestic currency. If the effect of appreciation is significantly large, then reducing export prices may hamper the profit margins in this sense, [9] argue that the exporting country may prefer to absorb the effect of the appreciation so as to increase profit margins and pass a significant part of the effect of the appreciation to consumers, if only they have the markets powers to set prices. Generally, the effect of the real exchange rate on

unemployment could be negative or positive depending on the specific characteristics of the market [10] & [11].

Empirically, copious studies suggest that a relationship exists between the real exchange rate and unemployment. These include [12], [13], [11], [14] – [26].

Majority of these studies that examined this relationship between exchange rate and unemployment are developed-countries based while a few are based on developing countries. The studies showed that the real exchange rate is a major determinant of unemployment, establishing that an appreciation of the real exchange rate increases unemployment rates are the result of losing trade competitiveness as exports become more expensive and vice versa. In contradistinction, [27] and [15] find that it is real exchange rate depreciation that increases the unemployment rate.

Nonetheless, the study carried out by [18] and [22] found a negative relationship, while that of [16], [28], [21], and [23] found a positive relationship between exchange rate and unemployment. Besides, the various studies only focused on the linear relationship between the real exchange rate and unemployment, using Johansen co-integration and error correction models (VECM) as their estimating technique.

Therefore, the findings from these studies could be misleading if there exists a non-linear relationship between the variables. To this end, this paper adopts the panel structural VAR to trace out the channels of exchange rate pass-through to unemployment in Africa, using Nigeria and South Africa as case studies.

## III. METHODOLOGY

### A. Model Specification

The study adopts the Panel Structural Vector Auto-Regressive (SVAR) method in estimating the exchange rate pass-through to Unemployment in Nigeria and South Africa. The paper evaluates two different channels through which the exchange rate can impact unemployment in Africa – the export channel and the import channel. The study, therefore, intends to trace the transmission through both channels hence providing two variants of the model to be estimated. The variants are presented in equations 1 and 2.

### First Variant

The first variant traces the impact of the exchange rate on unemployment through export revenue, investment, money supply, and GDP.



The model is specified as follows:

$$\begin{aligned}
 UNM_t &= \alpha'_{11}UNM_{t-1} + \alpha'_{12}GDP_{t-1} + \alpha'_{13}MS_{t-1} + \alpha'_{14}INV_{t-1} + \alpha'_{15}XPR_{t-1} + \alpha'_{16}REER_{t-1} + \alpha^0_{12}GDP_t + \alpha^0_{13}MS_t \\
 &\quad + \alpha^0_{14}INV_t + \alpha^0_{15}XPR_t + \alpha^0_{16}REER_t + \varepsilon_{1t} \\
 GDP_t &= \alpha'_{11}UNM_{t-1} + \alpha'_{12}GDP_{t-1} + \alpha'_{13}MS_{t-1} + \alpha'_{14}INV_{t-1} + \alpha'_{15}XPR_{t-1} + \alpha'_{16}REER_{t-1} + \alpha^0_{11}UNM_t + \alpha^0_{13}MS_t \\
 &\quad + \alpha^0_{14}INV_t + \alpha^0_{15}XPR_t + \alpha^0_{16}REER_t + \varepsilon_{2t} \\
 MS_t &= \alpha'_{11}UNM_{t-1} + \alpha'_{12}GDP_{t-1} + \alpha'_{13}MS_{t-1} + \alpha'_{14}INV_{t-1} + \alpha'_{15}XPR_{t-1} + \alpha'_{16}REER_{t-1} + \alpha^0_{11}UNM_t + \alpha^0_{12}GDP_t \\
 &\quad + \alpha^0_{14}INV_t + \alpha^0_{15}XPR_t + \alpha^0_{16}REER_t + \varepsilon_{3t} \\
 INV_t &= \alpha'_{11}UNM_{t-1} + \alpha'_{12}GDP_{t-1} + \alpha'_{13}MS_{t-1} + \alpha'_{14}INV_{t-1} + \alpha'_{15}XPR_{t-1} + \alpha'_{16}REER_{t-1} + \alpha^0_{11}UNM_t + \alpha^0_{12}GDP_t \\
 &\quad + \alpha^0_{13}MS_t + \alpha^0_{15}XPR_t + \alpha^0_{16}REER_t + \varepsilon_{4t} \\
 XPR_t &= \alpha'_{11}UNM_{t-1} + \alpha'_{12}GDP_{t-1} + \alpha'_{13}MS_{t-1} + \alpha'_{14}INV_{t-1} + \alpha'_{15}XPR_{t-1} + \alpha'_{16}REER_{t-1} + \alpha^0_{11}UNM_t + \alpha^0_{12}GDP_t \\
 &\quad + \alpha^0_{13}MS_t + \alpha^0_{14}INV_t + \alpha^0_{16}REER_t + \varepsilon_{5t} \\
 REER_t &= \alpha'_{11}UNM_{t-1} + \alpha'_{12}GDP_{t-1} + \alpha'_{13}MS_{t-1} + \alpha'_{14}INV_{t-1} + \alpha'_{15}XPR_{t-1} + \alpha'_{16}REER_{t-1} + \alpha^0_{11}UNM_t + \alpha^0_{12}GDP_t \\
 &\quad + \alpha^0_{13}MS_t + \alpha^0_{14}INV_t + \alpha^0_{15}XPR_t + \varepsilon_{6t}
 \end{aligned}$$

The recursive SVAR model for the first variant is given as:

$$\begin{bmatrix} 1 & 0 & 0 & 0 & 0 & 0 \\ -\alpha^0_{21} & 1 & 0 & 0 & 0 & 0 \\ -\alpha^0_{31} & -\alpha^0_{32} & 1 & 0 & 0 & 0 \\ -\alpha^0_{41} & -\alpha^0_{42} & -\alpha^0_{43} & 1 & 0 & 0 \\ -\alpha^0_{51} & -\alpha^0_{52} & -\alpha^0_{53} & -\alpha^0_{54} & 1 & 0 \\ -\alpha^0_{61} & -\alpha^0_{62} & -\alpha^0_{63} & -\alpha^0_{63} & -\alpha^0_{64} & 1 \end{bmatrix} \begin{bmatrix} UNM_t \\ GDP_t \\ MS_t \\ INV_t \\ XPR_t \\ REER_t \end{bmatrix} = \begin{bmatrix} \alpha'_{11} & \alpha'_{12} & \alpha'_{13} & \alpha'_{14} & \alpha'_{15} & \alpha'_{16} \\ \alpha'_{21} & \alpha'_{22} & \alpha'_{23} & \alpha'_{24} & \alpha'_{25} & \alpha'_{26} \\ \alpha'_{31} & \alpha'_{32} & \alpha'_{33} & \alpha'_{34} & \alpha'_{35} & \alpha'_{36} \\ \alpha'_{41} & \alpha'_{42} & \alpha'_{43} & \alpha'_{44} & \alpha'_{45} & \alpha'_{46} \\ \alpha'_{51} & \alpha'_{52} & \alpha'_{53} & \alpha'_{54} & \alpha'_{55} & \alpha'_{56} \\ \alpha'_{61} & \alpha'_{62} & \alpha'_{63} & \alpha'_{64} & \alpha'_{65} & \alpha'_{66} \end{bmatrix} \begin{bmatrix} UNM_{t-1} \\ GDP_{t-1} \\ MS_{t-1} \\ INV_{t-1} \\ XPR_{t-1} \\ REER_{t-1} \end{bmatrix} + \begin{bmatrix} \varepsilon_{1t} \\ \varepsilon_{2t} \\ \varepsilon_{3t} \\ \varepsilon_{4t} \\ \varepsilon_{5t} \\ \varepsilon_{6t} \end{bmatrix}$$

- Where: UNM = Unemployment,  
 GDP = Gross Domestic Product,  
 MS = Money Supply,  
 INV = Investment,  
 XPR = Export Revenue,  
 REER = Real Effective Exchange Rate.

**Second Variant**

The second variant traces the impact of the exchange rate on unemployment through import expenditure, private consumption expenditure, and GDP.



The model is specified as follows:

$$\begin{aligned}
 UNM_t &= \beta'_{11}UNM_{t-1} + \beta'_{12}GDP_{t-1} + \beta'_{13}PCE_{t-1} + \beta'_{14}IMP_{t-1} + \beta'_{15}REER_{t-1} + \beta^0_{12}GDP_t + \beta^0_{13}PCE_t + \beta^0_{14}IMP_t \\
 &\quad + \beta^0_{15}REER_t + \varepsilon_{1t} \\
 GDP_t &= \beta'_{11}UNM_{t-1} + \beta'_{12}GDP_{t-1} + \beta'_{13}PCE_{t-1} + \beta'_{14}IMP_{t-1} + \beta'_{15}REER_{t-1} + \beta^0_{11}UNM_t + \beta^0_{13}PCE_t + \beta^0_{14}IMP_t \\
 &\quad + \beta^0_{15}REER_t + \varepsilon_{2t} \\
 PCE_t &= \beta'_{11}UNM_{t-1} + \beta'_{12}GDP_{t-1} + \beta'_{13}PCE_{t-1} + \beta'_{14}IMP_{t-1} + \beta'_{15}REER_{t-1} + \beta^0_{11}UNM_t + \beta^0_{12}GDP_t + \beta^0_{14}IMP_t \\
 &\quad + \beta^0_{15}REER_t + \varepsilon_{3t} \\
 IMP_t &= \beta'_{11}UNM_{t-1} + \beta'_{12}GDP_{t-1} + \beta'_{13}PCE_{t-1} + \beta'_{14}IMP_{t-1} + \beta'_{15}REER_{t-1} + \beta^0_{11}UNM_t + \beta^0_{12}GDP_t + \beta^0_{13}PCE_t \\
 &\quad + \beta^0_{15}REER_t + \varepsilon_{4t} \\
 REER_t &= \beta'_{11}UNM_{t-1} + \beta'_{12}GDP_{t-1} + \beta'_{13}PCE_{t-1} + \beta'_{14}IMP_{t-1} + \beta'_{15}REER_{t-1} + \beta^0_{11}UNM_t + \beta^0_{12}GDP_t + \beta^0_{13}PCE_t \\
 &\quad + \beta^0_{14}IMP_t + \varepsilon_{5t}
 \end{aligned}$$

The recursive model for the second variant is given as:

$$\begin{bmatrix} 1 & 0 & 0 & 0 & 0 \\ -\beta_{21}^0 & 1 & 0 & 0 & 0 \\ -\beta_{31}^0 & -\beta_{32}^0 & 1 & 0 & 0 \\ -\beta_{41}^0 & -\beta_{42}^0 & -\beta_{43}^0 & 1 & 0 \\ -\beta_{51}^0 & -\beta_{52}^0 & -\beta_{53}^0 & -\beta_{54}^0 & 1 \end{bmatrix} \begin{bmatrix} UNM_t \\ GDP_t \\ PCE_t \\ IMP_t \\ REER_t \end{bmatrix} = \begin{bmatrix} \beta'_{11} & \beta'_{12} & \beta'_{13} & \beta'_{14} & \beta'_{15} \\ \beta'_{21} & \beta'_{22} & \beta'_{23} & \beta'_{24} & \beta'_{25} \\ \beta'_{31} & \beta'_{32} & \beta'_{33} & \beta'_{34} & \beta'_{35} \\ \beta'_{41} & \beta'_{42} & \beta'_{43} & \beta'_{44} & \beta'_{45} \\ \beta'_{51} & \beta'_{52} & \beta'_{53} & \beta'_{54} & \beta'_{55} \end{bmatrix} \begin{bmatrix} UNM_{t-1} \\ GDP_{t-1} \\ PCE_{t-1} \\ IMP_{t-1} \\ REER_{t-1} \end{bmatrix} + \begin{bmatrix} \varepsilon_{1t} \\ \varepsilon_{2t} \\ \varepsilon_{3t} \\ \varepsilon_{4t} \\ \varepsilon_{5t} \end{bmatrix}$$

Where: UNM = Unemployment,  
 GDP = Gross Domestic Product,  
 PCE = Private Consumption Expenditure,  
 IMP = Import Expenditure,  
 REER = Real Effective Exchange Rate.

**B. Data Sources**

The data for Nigeria were obtained from the Central Bank of Nigeria (Statistical Bulletin) and National Bureau of Statistics Annual Abstracts, while the data for South Africa were obtained from the Reserve Bank’s Bulletin of Economic Notes. The frequency of the data is quarterly and covers a 12 year period spanning 2007 to 2018

**IV. RESULTS AND DISCUSSION**

**A. Preliminary Analysis**

The study used the panel SVAR to give empirical content to the stated objectives. Before estimation, the study conducted a preliminary analysis which provided direction with respect to the appropriate technique of analysis. The panel unit root test was employed to test for stationarity of the data series both at individual series and common series. The Levin, Lin, and Chu unit root tests were used for common series, while the Im, Pesaran, and Shin W-statistic were used for the individual series. The result is presented in Table 1.

**Table 1. Stationarity Test**

Variable	Common Series		Individual Series		Order of Integration
	Value	Prob.	Value	Prob.	
<b>UNM</b>	-8.57	0.0000	-10.58	0.0000	I(1)
<b>GDP</b>	-6.17	0.0000	-7.13	0.0000	I(1)
<b>M2</b>	-10.44	0.0000	-2.96	0.0000	I(1)
<b>INV</b>	-5.42	0.0000	-4.61	0.0000	I(1)
<b>XPR</b>	-8.97	0.0000	-7.61	0.0000	I(1)
<b>IMP</b>	-11.96	0.0000	-11.86	0.0000	I(1)
<b>PCE</b>	-7.62	0.0000	-9.52	0.0000	I(1)
<b>REER</b>	-7.09	0.0000	-5.75	0.0000	I(1)

Source: Eviews10 Output, 2019.

Table 1 shows that the test statistics for the common series and individual series and their associated one-sided p values. It further shows that the variables achieved stationarity at first difference. This prompted the test for cointegration to

ascertain the existence of a linear combination and a long-run relationship between the variables. The information is contained in Table 2.

**Table 2. Cointegration Test**

Null Hypothesis	Trace Statistic	Prob.**	Max-Eigen Statistic	Prob.**
<b>First Variant</b>				
<b>r = 0*</b>	140.7442	0.0000	48.53332	0.0045
<b>r ≤ 1*</b>	92.21090	0.0003	35.10977	0.0355
<b>r ≤ 2*</b>	57.10113	0.0053	31.68305	0.0140
<b>r ≤ 3</b>	25.41808	0.1470	16.63138	0.1901
<b>r ≤ 4</b>	8.786704	0.3855	8.774635	0.3054
<b>r ≤ 5</b>	0.012070	0.9123	0.012070	0.9123
Both Trace test and Max-Eigen test indicates 3 cointegrating eqn(s) each at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				

Second Variant				
$r = 0^*$	110.3211	0.0000	48.64340	0.0005
$r \leq 1^*$	61.67768	0.0015	42.68473	0.0003
$r \leq 2$	18.99295	0.4934	13.58569	0.3999
$r \leq 3$	5.407261	0.7641	5.372410	0.6943
$r \leq 4$	0.034851	0.8519	0.034851	0.8519
Both Trace test and Max-Eigen test indicates 2 cointegrating eqn(s) each at the 0.05 level				

Source: Eviews10 Output, 2019.

The Trace test and Max-Eigen value test shows a long-run equilibrium relationship between the variables. This implies a stationary linear combination. As such, the non-stationary time series are co-integrated. Having established the relationship, the Panel SVAR model is employed on the data to examine the details in the relationships.

**B. Exchange Rate Pass-through to Unemployment in Nigeria and South Africa**

The exchange pass-through to unemployment in Sub-Saharan Africa was examined using two channels – the export channel and the import channel to examine the response of unemployment to shocks in the exchange rate. The contemporaneous effect of the shocks from exchange rate to unemployment is given in Table 3:

Table 3. Structural VAR Estimates

Variables	REFER	XP	INV	M2	GDP	UNM
<b>First Variant (Export Channel)</b>						
REER	1.00	0.00	0.00	0.00	0.00	0.00
XPR	0.01	1.00	0.00	0.00	0.00	0.00
INV	-0.003	0.005	1.00	0.00	0.00	0.00
M2	0.02	0.009	-0.26	1.00	0.00	0.00
GDP	-0.001	0.07	-0.64	-0.02	1.00	0.00
UNM	-0.0008	0.005	-0.06	-0.00	0.06	1.00
	REFER	IMP	PCE	GDP	UNM	
<b>Second Variant (Import Channel)</b>						
REER	1.00	0.00	0.00	0.00	0.00	-
IMP	0.00	1.00	0.00	0.00	0.00	-
PCE	0.02	-0.06	1.00	0.00	0.00	-
GDP	0.007	-0.005	-0.17	1.00	0.00	-
UNM	-0.003	0.013	-0.06	-0.12	1.00	-

Source: Eviews10 Output, 2019.

Table 3 reveals the transmission through the various channels. From the export channel, the transmission reveals that the exchange rate affects export revenue positively. In turn, exports affect investment positively. Investment affects money supply negatively, money supply affects GDP negatively, and GDP affects unemployment positively. Furthermore, table 3 shows that unemployment responds negatively to contemporaneous changes in the exchange rate, investment, and money supply through the export channel. Conversely, it further shows that unemployment responds positively to contemporaneous changes in export revenue and GDP.

Table 3 also shows the transmission through the import channel. The transmission channel shows that unemployment responds negatively to contemporaneous changes from GDP; GDP responds negatively to contemporaneous changes from private consumption; private consumption is affected positively by contemporaneous changes in imports; while imports respond positively to depreciation in the exchange rate. Furthermore, it shows that shocks to exchange rate, private consumption, and GDP exert a negative effect on

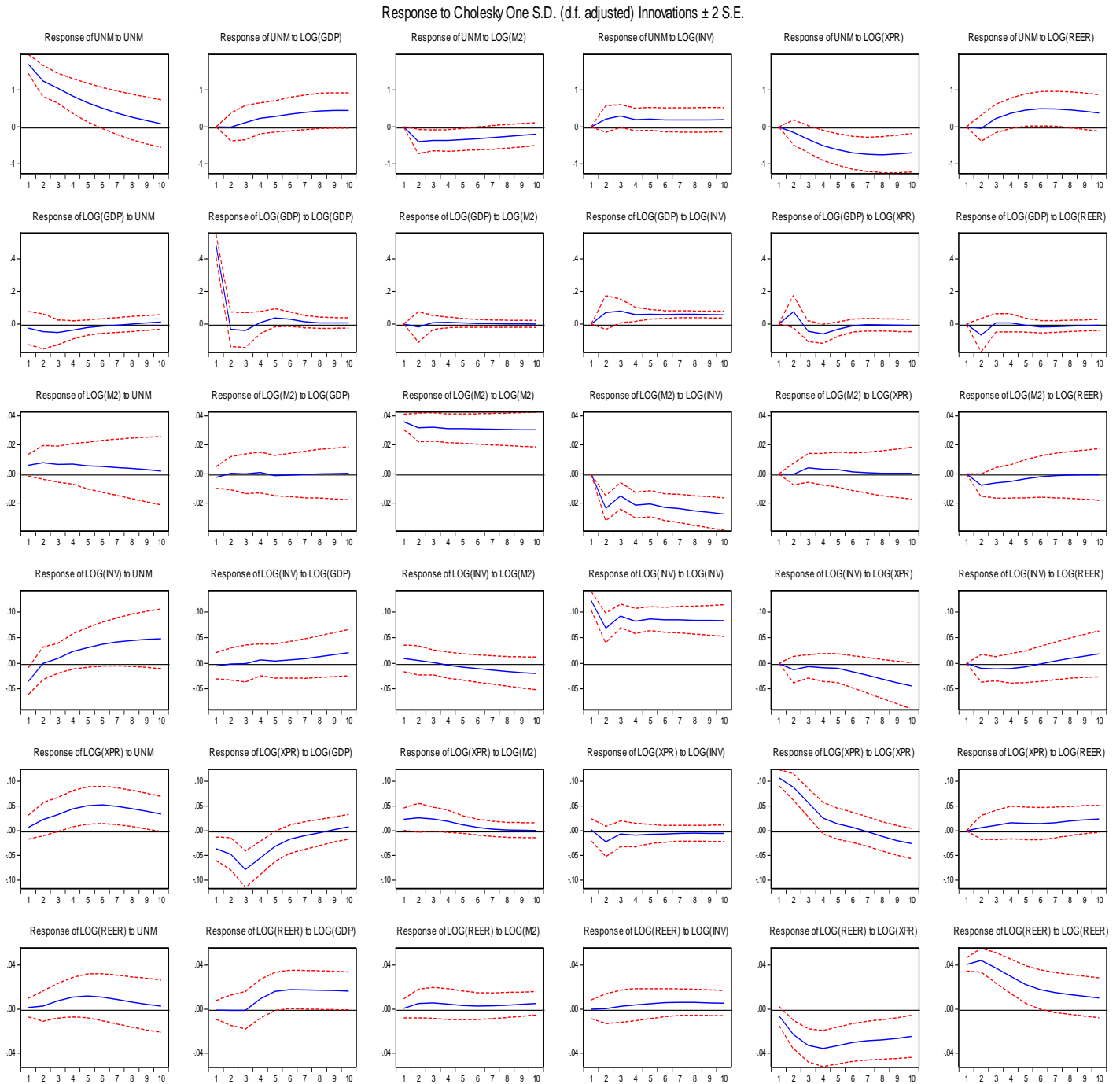
unemployment, while shocks to import exert a positive effect on unemployment.

**C. Impact of exchange Rate Pass-through to Unemployment in Nigeria and South Africa**

The impulse response function shows the long-run response of shocks from the exchange rate and the associated variables to unemployment. The impact of the shocks from exchange rate to unemployment in Nigeria and South Africa is shown in Figures 1 and 2.

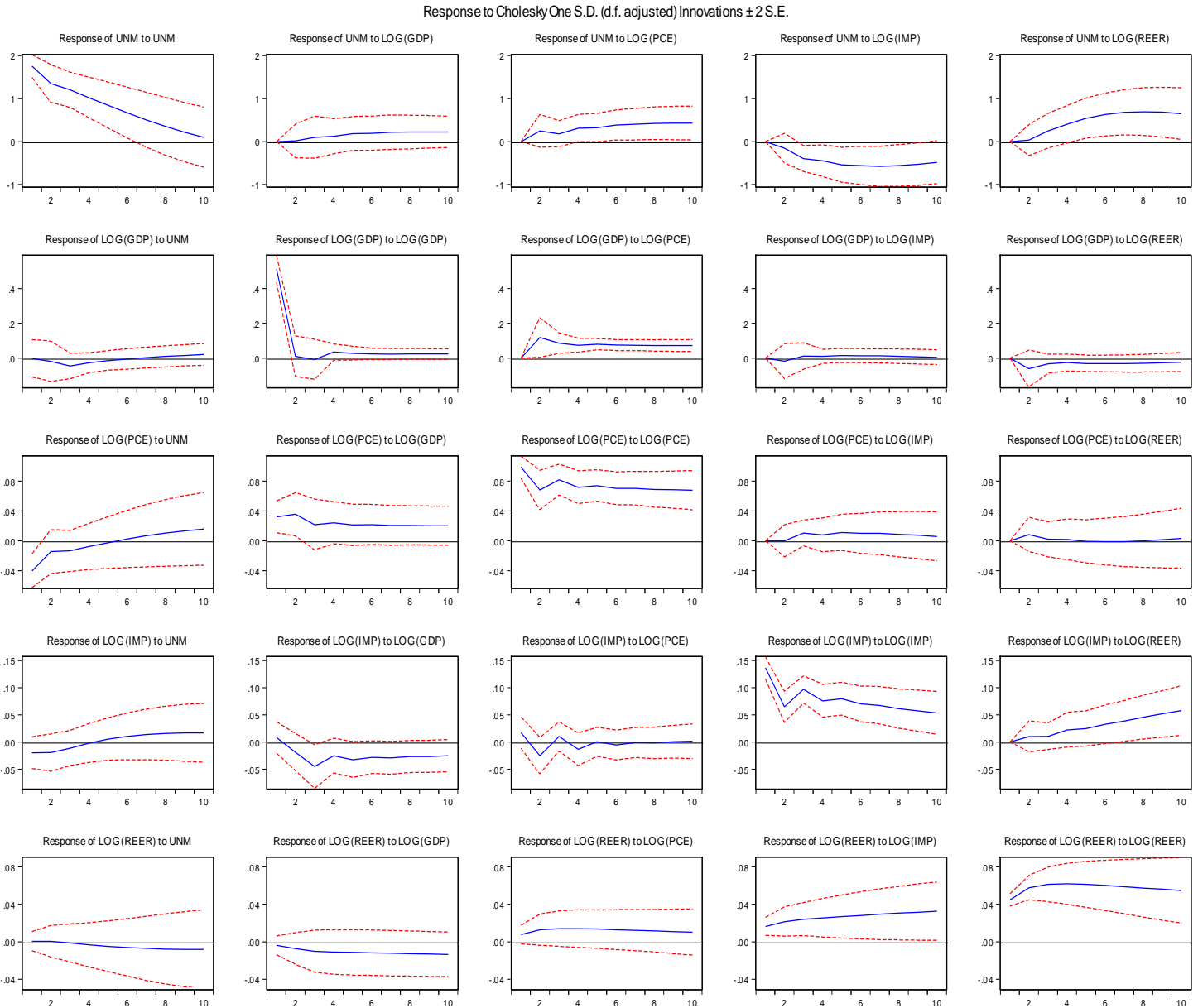
Fig. 1 shows that the shocks from the exchange rate have a positive impact on unemployment in all 10 quarters in the long run. The impact of the shock appears to be temporary as it shows convergence towards equilibrium. It further shows that a 1% shock to the exchange rate would lead to a 0.37% increase in unemployment. Similarly, shocks to investment and GDP have a positive impact on unemployment. Their parameters reveal that their innovations will cause unemployment to increase by 0.19% and 0.44%, respectively. The impact of investment appears to be temporary and short-lived, while that of GDP seems to be long-lasting. Conversely, impulses from export revenue and money supply lead to a reduction in unemployment.

A shock to export revenue will negatively affect unemployment by 0.70%, while the impulses from the money supply will affect unemployment by 0.19%. The effect of export revenue is permanent due to its divergence from equilibrium which is good news, while that of the money supply is temporary and shows a possibility for a reversal in the nearest future.



**Fig. 1 Export Channel of Exchange Rate Pass-through to Unemployment**

Figure 2 shows the impulse response from the import channel. It shows that unemployment responds positively to impulses from the exchange rate, private consumption, and GDP. Specifically, it shows that as the shocks affect the exchange rate, private consumption, and GDP by 1%, unemployment will increase by 0.65%, 0.43%, and 0.22%, respectively. The shocks to exchange rate and private consumption appear to be permanent while that of GDP is temporary. Contrarily, a shock to imports will affect unemployment positively, and the impact is permanent and long-lasting. Figure 2 shows that a 1% shock to imports will cause unemployment to reduce by 0.48%.



**Fig. 2 Import Channel of Exchange Rate Pass-through to Unemployment**

The variance decomposition, which shows the proportion of shocks accounted for by the explanatory variables, is presented in Table 4:

**Table 4. Variance Decomposition**

Period	S.E.	UNM	GDP	M2	INV	XP	REFER
<b>Export Channel</b>							
1	1.70	100.00	0.00	0.00	0.00	0.00	0.00
4	2.74	83.32	0.89	5.83	2.25	5.24	2.47
7	3.35	63.07	3.73	6.59	2.55	16.35	7.76
10	3.79	50.17	6.94	6.28	2.75	24.07	9.79
<b>Import Channel</b>							
Period	S.E.	UNM	GDP	PCE	IMP	REAR	
1	1.76	100.00	0.00	0.00	0.00	0.00	-
4	2.87	89.95	0.31	2.34	4.65	2.76	-
7	3.50	71.84	1.18	4.97	10.76	11.25	-
10	3.92	58.61	1.92	7.57	13.95	17.95	-

Source: Eviews10 Output, 2019.



Table 4 indicates that the highest proportion of shocks affecting unemployment emanates from itself in both variants of the model – 50.17% and 58.61% in the export and import channels, respectively. Amongst the explanatory variables in the export channel, export revenue accounts for 24.07% of the shocks affecting unemployment, while exchange rate, investment, GDP, and money supply account for 25.76% of the innovations affecting unemployment. Domestic investment accounts for the least of the impulses affecting unemployment at 2.75%.

Through the import channel, exchange rate and imports account for 17.95% and 13.95%, respectively, while private consumption and GDP account for 7.57% and 1.92%, respectively. GDP accounts for the least of the innovations affecting unemployment from the model.

## V. CONCLUSION AND RECOMMENDATIONS

The study finds that the exchange rate does not exert the expected impact on unemployment in Sub-Saharan Africa through the export and import channels. The results reveal that depreciation in the exchange rate is likely to lead to an increase in unemployment in SSA. The pass-through effect also confirms this result as the channels of transmission does not exert the desired impact. From the export channel, for instance, export revenue postulates a tendency of lowering unemployment; however, the intermediate variables, investment, and GDP responds in the opposite direction. A possible explanation is that the bulk of domestic investment is not drawn from domestic investment, rather is mobilized from household savings. Its deficiency hampers the growth of the economy with resulting consequences on the rate of unemployment. This is further accentuated by the weak contributions of GDP and investment in the model.

Similarly, the import channel also shows that import expenditure has the potential of reducing unemployment; however, its latent effect on unemployment through private consumption and GDP negates such attributes. Most of Nigeria's import expenditure is on consumer goods (private consumption) which competes locally with industries that produce similar commodities. Hence, this affects economic output, which distorts the growth process and also spurs unemployment.

The study concludes that the exchange rate pass-through to unemployment in Nigeria and South Africa is not complete. The depreciation in the exchange rate leads exacerbates the problem of unemployment in Sub-Saharan Africa. The pass-through channels of export and import possess the potentials of lowering unemployment in Nigeria and South Africa; however, the latent effect through other intermediate variables is contrary. On the basis of the findings, the study recommends that:

- Export revenues should be channeled into more remunerative alternatives to driving investment in Sub-Saharan Africa. Investments in key infrastructure

such as power, transport networks, and basic infrastructure should be prioritized so as to create an enabling environment for private investment to thrive.

- Imports expenditure should not be discouraged. However, consumer goods should be substituted for capital goods in order to provide key inputs for the growing industrial sector in Sub-Saharan Africa. This would promote faster output and create employment opportunities in the longrun.
- If these measures are not taken, the exchange rate pass-through to unemployment in Sub-Saharan Africa will continue to be impaired by the overlaps.

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