Is the Co-Movement Between Budget Deficit and Current Account Deficit Applicable to South Africa?

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Abstract **-** The idea of the overall budget balance to have a statistically significant impact on the current account balance is known as the Twin deficits hypothesis, which this study seeks to investigate. We made use of annual macroeconomic data spanning from 1970 – 2017. Additionally, we utilized novel time-series cointegration techniques such as the ARDL Bounds and Granger causality analysis. From empirical tests, we find that the overall budget deficit and current account deficit are cointegrated. Furthermore, the real interest rate, real effective exchange rate and GDP are found to have a negative and statistically significant effect on the current account balance while the overall budget deficit, on the contrary, is found to have a positive and statistically significant effect on the current account deficit, at least in the short term. Granger causality test indicates uni-directional causation from budget deficit to current account deficit, lagged one period. Given these findings, we fail to reject the Twin Deficits Hypothesis within the context of South Africa. The policy implication is for the government to fix the fiscus to improve the budget stance and subsequently the current account stance. Improvements in tax administration efficiency and reductions in non-essential spending are a good starting point.

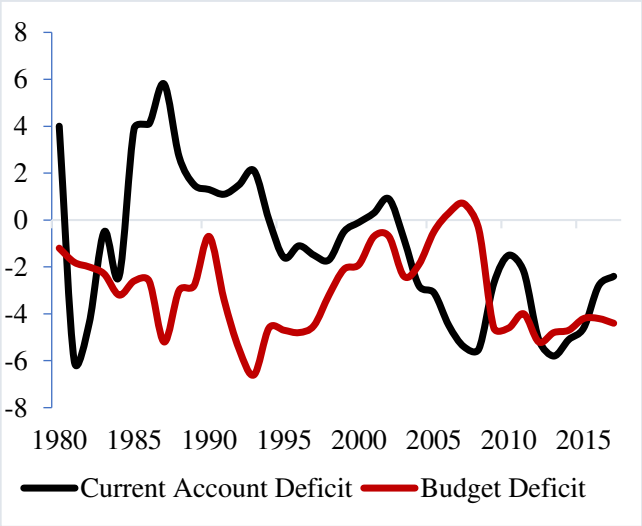
Keywords: ARDL Bounds test, Ricardian equivalence, Twin deficits, South Africa
JEL Classification: E62, H62, F32, O16, F41, C33

1. INTRODUCTION

The recent 2008 Global Financial turmoil has created room for researchers in the field of social sciences to revisit the Twin Deficit Hypothesis (TDH). This is because, ever since the financial turmoil, both developing and developed nations have been faced with sustained budget deficits and current account deficits, which to this end, remain the primary causes of major ills in economies (Aqeel and Nishat, 2000 and Mukhtar et al., 2007). Based on the TDH, a budget shortfall exacerbates the current account deficit by placing upward pressure on domestic interest rates, triggering capital inflows and exchange rate appreciation, which then translates into cheaper imports and relatively less competitive exports (Epaphra, 2017). As exports experience a decline in international competitiveness, imports on the one hand gain momentum, thus outweighing the value of exports, consequently a trade shortfall. This hypothesis is strongly supported by researchers such as (Fleming, 1962: Mundell, 1963: Kim and Roubini, 2008) to name a few. Although this makes economic sense, certain academics i.e. Barro (1989) challenged the TDH by stating that a rational agent would see current tax cuts and increases in government spending as future tax burdens, thus increasing savings more than consumption to offset future tax increases (Amaghionyeodiwe, 2015). This idea is known as the Ricardian Equivalence, which remains contested simultaneous with the TDH. South Africa in particular, has been incurring sustained budget shortfalls and current account deficits post the fall of the Lehman Brothers in 2008. The historical data is provided in Figure 1. We can observe from Figure 1 that South Africa's budget deficit has ranged between 0.7% and -6.6%

as a ratio of GDP over the period 1980 – 2017 (Budget Review, 2018). During the same period, the current account deficit has ranged between 5.8% and -6.0% as a ratio of GDP (South African Reserve Bank, 2018). Moreover, the fiscal balance gained momentum in 2007, amounting to 0.7% as a ratio of GDP, before hitting a record low of -5.2% as a ratio of GDP in 2012.

Figure 1: Trends in overall budget balance and current account balance



Source: author's computations using SARB Data (2018)

The current account balance performed fairly well between the years 1985 to 1994, recording positive balances before hitting a record low of -5.8% as a ratio of GDP in 2013. According to SARB Quarterly Bulleting (2018), South Africa's trade surplus narrowed from R38 billion in the second quarter of 2018 to R14 billion in the third quarter of 2018. Further on the upside, the services, income and current transfers account accelerated in the third quarter of 2018, albeit this was not sufficient to offset the trade shortfall. It is worth noting however, that the government has taken several necessary measures to narrow the budget shortfall and trade shortfall, including tax increases, expenditure ceilings and other policies aimed at political and economic stability (Budget Review, 2018). Interestingly, the budget deficit is projected to narrow down to -3.8% in 2018/19 due to renewed focus (Fin24, 2018). Against this backdrop, this study aims to revisit the TDH. The rationale is that, South Africa is currently experiencing massive budget shortfalls and current account deficits, placing upward pressure on borrowing requirements. As the nation continues to implement fiscal adjustments to bring expenditure in line with revenue, it becomes necessary to investigate if reductions in the budget shortfall will improve the current account position. This will be achieved by estimating the effects of the overall fiscal balance on the current account and the direction of causality thereof, if any exists. The rest of the study is organized in the following manner: Section 1 introduced the topic and objective of the study. Section 2 provides a review of literature on TDH. Section 3 delves into the empirical strategy while Section 4 presents findings of the study. Section 5 concludes the study, followed by policy implications.

2. LITERATURE REVIEW

2.1. Theoretical Literature

Following Mukhtar et al (2007) and Epaphra (2017), we began the theoretical framework with simplified national income dynamics. Assume two measures of GDP, the income and expenditure method, expressed as follows:

$$Y = C + I + G + (X - Z) \qquad (1)$$

Where:

Y is national income measured in terms of GDP

C is final consumption spending by households

I is the gross private investment

G is final consumption expenditure by central government

$(X - Z)$ is exports less imports, yielding the trade balance

The income method can be expressed as:

$$Y = C + S + T + N_{TP} \quad (2)$$

Where

S is gross national savings

T is tax revenue

N_{TP} is net transfer payments

By equating equations (1) and (2), assuming negligible transfers for simplicity' sake, we are able to derive the resource gap:

$$(X - Z) = (S - I) + (G - T) \quad (3)$$

comprising of the current account $(X - Z)$, the savings-investment gap $(S - I)$ and fiscal balance $(G - T)$. Theoretically, an increment in the budget deficit would exacerbate the current account deficit (Salvatore, 2006: Epaphra, 2017). This is because, an increase in budget deficit induces upward pressure on domestic interest rates: triggering capital inflows and exchange rate appreciation and translating into cheaper imports and less competitive exports prices. Notably, the national savings equation can be written mathematically as:

$$S = Y - C \quad (4)$$

Equation (4) implies that national savings is the difference between national income and consumption expenditure. Additionally, national savings can be broken into two components (Mukhtar, 2007), that part which is financed by households and firms known as private savings S_P and that which is financed by the government known as government savings S_G, expressed as:

$$S = S_P + S_G \quad (5)$$

in which case private savings is the remainder of household income adjusted for taxes and consumption, expressed as:

$$S_P = Y_d - C = (Y - T) - C \quad (6)$$

Government savings is the positive difference between government revenue and expenditure, which can be expressed mathematically as:

$$S_G = T - (G + G_{TR}) = T - G - G_{TR} \quad (7)$$

where G is government expenditure on goods and services, G_{TR} is government transfers and T is government revenue in taxes. Given this, equation (3) can be rewritten as:

$$CA = (S_P - I) + BD \quad (8)$$

This implies that, under stable savings conditions, variations in budget shortfall will affect the current account stance, deeming the twin deficit hypothesis valid (Suresh and Vikas, 2015).

2.2. Empirical Literature

Epaphra (2017) employed the Johansen Cointegration technique and Vector Error Correction Model (VECM) to investigate the legitimacy of the twin deficit theory in Tanzania. The empirical tests indicate that the twin deficit theory is present in the Tanzanian economy, implying that budget shortfalls worsen the current account stance. Amaghionyeodiwe and Akinyemi (2015) revisited the twin deficit hypothesis in an oil-subordinate-economy such as Nigeria. The cointegration results affirmed the presence of a long-run connection amongst the fiscal balance and current account position whereas the causality tests indicated a one-way causation from current account to budget deficit.

Mukhtar et al., (2007) tested the validity of the twin deficiency theory in Pakistan utilizing quarterly time-series data spanning from 1975 - 2005. Their findings revealed that the fiscal balance and current account stance are cointegrated. Even more, they find a bi-directional causation from fiscal balance to current account stance and from current account stance to fiscal balance. Mandishekwa et al., (2014) investigated the applicability of the twin deficiency theory in the context of Zimbabwe. Having utilised the Johansen cointegration test and Granger causality test, they found that the twin deficit hypothesis holds in Zimbabwe.

Akbaş and Lebe (2016) investigated the triple deficiency theory in G7 nations and it was valid as causality spanned from savings gap to current

account shortfall, from fiscal balance to current account shortfall and from fiscal balance to savings gap. Kalaj and Mema (2015) made an inquiry into the twin deficit hypothesis within the context of Albania using macroeconomic data ranging from 1992 – 2014. Using an extended set of control variables, they discover proof of a causal connection between the twin deficiencies. El-Baz (2014) analyzed the connection between the current account deficit and fiscal shortfall in Egypt using annual time-series data spanning from 1990 – 2012. Surprisingly, the empirical tests failed to accept the applicability of the twin deficiency theory, as granger causality tests uncovered a reverse causal relationship spanning from the current account shortfall to the fiscal shortfall.

Sakyi and Opoku (2016) conducted a study on the twin deficiency theory in Ghana using macroeconomic data covering 1960 – 2012. They made use of novel cointegration techniques while controlling for structural breaks and found the existence of the twin divergence theory. Suresh and Vikas (2015) conducted a similar analysis within the context of India. Based on empirical cointegration tests, no long-term connection exists between fiscal shortfall and current account shortfall in India. However, the granger causality test revealed a bi-directional causation between the budget and current account deficit.

3. EMPIRICAL STRATEGY

3.1. Data

The study utilized annual macroeconomic data spanning from 1990 – 2017. The data was gathered from credible databases such as the South African Reserve Bank and World Bank's World Development Indicators (WDI).

3.2. Model Specification and Techniques

The model is expressed as follows:

$$Y_t = \alpha + \theta L\Upsilon + \varepsilon_t \qquad (9)$$

Where Y_t is the regressand (current account deficit), α is a constant, θ represents parameters to be estimated, L is the lag operator (e.g. $Y_{t-1} = LY$) and ε_t is the gaussian white noise term with usual properties $N\sim(0,\sigma)$. Υ is a vector of regressors consisting of:

$$\Upsilon = (BD, LnGDP, RIR, EXR) \qquad (10)$$

where BD is the budget deficit as a ratio of GDP, $LnGDP$ is GDP at market prices used as a proxy for domestic incomes, RIR is the real interest rate and EXR is the real effective exchange rate. Only GDP is linearized as other variables contain non-zero values, hence we fail to linearize them. The estimated coefficient for GDP will thus be significantly high. Nonetheless, variables were examined for stationarity by means of the Augmented-Dickey-Fuller-GLS (ADF-GLS) stationarity test by Elliot, Rothenberg and Stock, (1996), which is an alteration of the conventional ADF stationarity test by Fuller (1976). The ADF-GLS test is known to dominate existing unit root tests in terms of power. However, there is no uniformly better unit root test. Following this, we employ the Autoregressive Distributed Lag (ARDL) approach to cointegration by Pesaran (1997) and Pesaran et al., (2001) to test for long-run relationship amongst the variables. In the ARDL estimation, equation (9) can be reparameterized as such to obtain long run coefficients:

$$CAD_t = \alpha + \theta_1 CAD_{t-1} + \theta_2 BD_{t-1} + \theta_3 LnGDP_{t-1} + \theta_4 RIR_{t-1} + \theta_5 EXR_{t-1} + \sum_{z=0}^{q} \beta_1 \Delta CAD_{t-z} + \sum_{z=1}^{q} \beta_2 \Delta BD_{t-z} + \sum_{z=1}^{q} \beta_3 \Delta LnGDP_{t-z} + \sum_{z=1}^{q} \beta_4 \Delta RIR_{t-z} + \sum_{z=1}^{q} \beta_5 \Delta EXR_{t-z} + \varepsilon_t \qquad (11)$$

The selected ARDL model for estimating short term parameters and the Error Correction term (ECt) is expressed as:

$$\Delta CAD_t = \alpha + \sum_{z=1}^{q} \beta_1 \Delta CAD_{t-z} + \sum_{z=1}^{q} \beta_2 \Delta BD_{t-z} + \sum_{z=1}^{q} \beta_3 \Delta LnGDP_{t-z} + \sum_{z=1}^{q} \beta_4 \Delta RIR_{t-z} + \sum_{z=1}^{q} \beta_5 \Delta EXR_{t-z} + \lambda(\Sigma_{t-1}) + \varepsilon_t \qquad (12)$$

where λ measures the speed of acclimation to equilibrium, also known as the ECt. The increment

Δ denotes the short run coefficient. $\lambda < 0$ implies deviation from steady state whereas $\lambda = 0$ implies steady state, for which $\lambda \geq 1$. Notably, we make use of Granger causality technique (Granger, 1969, 1980) to test for causality between CAD and BD. The traditional equation (12) in granger causality form can thus be written as:

$$CAD_t = \sum_{z=1}^{q} \beta_{11,z} \Delta CAD_{t-z} + \sum_{z=1}^{q} \beta_{12,z} \Delta BD_{t-z} + \sum_{z=1}^{q} \beta_{13,z} \Delta \Omega_{t-z} + \mu_{1t} \quad (13)$$

$$BD_t = \sum_{z=1}^{q} \beta_{21,z} \Delta CAD_{t-z} + \sum_{z=1}^{q} \beta_{22,z} \Delta BD_{t-z} + \sum_{z=1}^{q} \beta_{23,z} \Delta \Omega_{t-z} + \mu_{2t} \quad (14)$$

$$RIR_t = \sum_{z=1}^{q} \beta_{31,z} \Delta CAD_{t-z} + \sum_{z=1}^{q} \beta_{32,z} \Delta RIR_{t-z} + \sum_{z=1}^{q} \beta_{33,z} \Delta \Omega_{t-z} + \mu_{3t} \quad (15)$$

$$EXR_t = \sum_{z=1}^{q} \beta_{41,z} \Delta CAD_{t-z} + \sum_{z=1}^{q} \beta_{42,z} \Delta EXR_{t-z} + \sum_{z=1}^{q} \beta_{43,z} \Delta \Omega_{t-z} + \mu_{4t} \quad (16)$$

$$LnGDP_t = \sum_{z=1}^{q} \beta_{51,z} \Delta CAD_{t-z} + \sum_{z=1}^{q} \beta_{52,z} \Delta LnGDP_{t-z} + \sum_{z=1}^{q} \beta_{53,z} \Delta \Omega_{t-z} + \mu_{5t} \quad (17)$$

where Ω is a vector of control variables: q indicates the number of lagged variables and μ is the innovation term. Lastly, we performed residual diagnostics tests to ensure that the residuals and coefficients are not biased as a result of serial correlation, heteroskedasticity, multicollinearity or any other threat. For serial correlation, we made use of the Breusch-Pagan-Godfrey LM Serial correlation test (Breusch and Godfrey, 1978) while for heteroskedasticity we employed the White heteroskedasticity test (White, 1980).

3.3. Justification of variables

The choice of variables was guided by the TDH and earlier studies (i.e. Epaphra, 2017: Suresh and Vikas, 2015). Through this hypothesis, the effect of the budget shortfall on current account works through numerous channels namely: exchange rate, interest rates, capital inflows and to a certain extent, domestic incomes. A valuation of the exchange rate worsens the current account as imports become cheaper while exports experience a decline in international competitiveness. Thus, the exchange rate is anticipated to have a negative sign. Domestic interest rates on the one side, have a non-positive effect on the current account and are thus anticipated to exhibit a negative sign. Furthermore, domestic incomes adversely affect the current account as higher incomes result in increased imports. The budget deficit on the contrary, is anticipated to exhibit a positive sign since improvements in the fiscal balance are expected to improve the current account.

4. Empirical Results and Discussions

This section details all the empirical tests conducted as well as findings. We begin by analyzing the characteristics of the data in table 1, in terms of mean, median, standard deviation and normal distribution. It evident from table 1 that the corresponding p-values for Jarque-Bera (JB) normality test are above 5%, implying that the data for all variables is normally distributed. Furthermore, the budget deficit and domestic income have standard deviations of 1.82 and 0.33, respectively, insinuating that the data points are close to the mean. On the contrary, real interest rate and effective exchange rate have relatively high values of standard deviation, amounting to 12.9 and 4.31, respectively, implying that the data points are spread out.

Table 1: Descriptive statistics

	CAD	BD	LNGDP	REX	RIR
Mean	-1.42	-3.28	14.40	98.33	13.84
Maximum	5.80	0.70	14.95	136.78	22.33
Minimum	-7.30	-6.60	13.82	72.50	7.96
Std. Dev.	3.35	1.82	0.33	12.88	4.31
Skewness	0.20	0.33	0.20	0.55	0.44
Kurtosis	2.28	2.17	1.96	3.78	1.95
Probability	0.50	0.33	0.29	0.16	0.15
Observations	48	48	48	48	48

Source: author's computations

The real effective exchange rate, followed by domestic incomes and real interest rate, have the

highest average, amounting to 98.3, 14.4 and 13.8, respectively. The total number of observations is 48 for all variables. Table 2 details findings from the correlation matrix and it can be seen that the fiscal balance, real interest rate and effective exchange rate are positively yet weakly correlated with current account deficit, amounting to 0.01, 0.09 and 0.34, respectively.

Table 2: Correlation Matrix

	CAD	BD	LNGDP	REX	RIR
CAD	1.00	0.00	-0.25	0.09	0.34
BD	0.01	1.00	0.13	-0.06	0.13
LNGDP	-0.25	0.13	1.00	-0.5	-0.15
REX	0.09	-0.06	-0.5	1.00	0.28
RIR	0.34	0.13	-0.15	0.2	1.00

Source: author's computations

Domestic income on the contrary, is adversely associated with the current account shortfall. It is clearly apparent that there is no strong correlation amongst the regressors. This implies that multicollinearity is less inclined to be present in the model. The non-stationarity test was performed since the macroeconomic data is known to be non-stationary. To attain this goal, we utilised the ADF-GLS stationarity test and the findings are provided in table 3.

Table 3: Stationarity results

	Dickey-Fuller-GLS		Outcome
	Level	1st difference	
CAD	-2.31**	-6.34*	I(0)
BD	-3.14*	-4.62*	I(0)
LNGDP	0.97	-4.42*	I(1)
REX	-2.10**	-5.93*	I(0)
RIR	-1.74***	-6.05*	I(0)

Asterisks (, **, ***) denote significance at the 1%, 5% and 10%, respectively*

It can be seen from table 3 that the current account deficit, budget deficit, real effective exchange rate and real interest rate are stationary at level whereas domestic incomes are stationary after first differencing. In light of the above findings, we confidently employed the ARDL Bounds test to cointegration as it is robust in handling variables of different orders of integration. Prior to that, the optimal lag-length for our specified ARDL model was estimated and the output is provided in table 4

Table 4: Optimal lag-length test results

Lag	LogL	FPE	AIC	SIC	HQ
0	489.15	3914.27	22.4	22.66	22.53
1	273.01	0.67	13.78	14.99*	14.22*
2	244.21	0.59	13.60	15.83	14.42
3	217.14	0.60	13.51	16.75	14.71
4	182.26	0.49*	13.06*	17.31	14.64

Asterisks (, **, ***) denote significance at the 1%, 5% and 10%, respectively*

The commonly used information criterions include Akaike Information Criterion (AIC), Schwarz Information Criterion (SIC) and Hann-Quin (HQ). For our study, we choose SIC over AIC since AIC is known to suggest more lags than necessary, resulting in loss of degrees of freedom and model overfitting. As can be seen in table 4, SIC recommends one lag, supported by HQ. AIC on the other hand, recommends four lags. The succeeding step was to gauge the long-run connection between current account shortfall and regressors in question, the budget shortfall being the main variable of interest. The output is provided in table 5.

Table 5: ARDL Bounds Cointegration

T-Statistic	Coefficient	k
F-statistic	4.44**	4
Critical Value Bounds		
Significance level	Lower-Bound	Upper-Bound
10%	2.45	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

*Asterisks ** denote significance at the 5% level,*

The ARDL bounds test confirms existence of long-run relationship between the variables in question. This is a result of the F-statistic value of 4.44 being greater than both the lower (2.86) and upper (4.01) bounds at least at the 5% significance level. The null hypothesis of no cointegration $H_0 = 0$ is thus rejected for the alternative hypothesis of cointegration $H_0 \neq 0$. These findings are consistent with Hassan et al., (2015) and Ahmad and Aworinde (2015) who utilised the same cointegration technique. Given the presence of long-run connection, we estimated the speed of adjustment to equilibrium and the findings are given in table 6.

Table 6: Long run and short run dynamics

Dependent variable: CAD				
Short run Coefficients				
Variable	Coefficient	Std. Error	t-Stat	Prob.
D(BD)	0.42	0.20	2.06	0.04**
D(LNGDP)	-51.17	17.31	-2.96	0.00*
D(REX)	-0.05	0.03	-1.80	0.08***
D(RIR)	-0.28	0.12	-2.37	0.02**
ECt	-0.37	0.09	-3.94	0.00*
Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Stat	Prob.
BD	-0.17	0.46	-0.37	0.71
LNGDP	-7.72	3.24	-2.38	0.02**
REX	-0.12	0.08	-1.56	0.12
RIR	0.19	0.22	0.86	0.39
C	122.23	54.05	2.26	0.03

Asterisks (, **, ***) denote significance at the 1%, 5% and 10%, respectively*

Based on findings presented in table 6, the speed of adjustment to equilibrium is 37%. This implies that 37% of past disequilibria are corrected in the future. Even more, the value lies between -1 and 0 and is factually significant. It is also observed that all short-run coefficients are factually significant, showing that the variables are important in explaining short-run variations in current account deficit. Domestic incomes, real effective exchange rate and real interest rates were found to negatively affect the current account deficit while the budget shortfall is found to positively affect the current account deficit, at least in the near term. These findings are consistent with Amaghionyeodiwe and Akinyem (2015), Hassan et al., (2015), Sakyi and Opoku (2016) and Epaphra (2017).

The short-run coefficients meet the priori expectation, however in the long run, only domestic incomes are found to be statistically significant in explaining changes in current account deficits. Even worse, the budget shortfall is found to exhibit a non-positive effect on the current account shortfall. Ahmad and Aworinde (2015) also found similar results. The residual diagnostic tests were performed as a formal condition in econometric analysis and the results are provided in table 8. It is apparent in table 8 that the data is normally distributed given that the JB corresponding p-value is above 5% and that the kurtosis value is 2.96, approaching the recommend value of 3.7.

Table 7: Residual diagnostics

Residual test	Obs*R-squared	Prob. Chi-Square(1)
Breusch-Godfrey Serial Correlation LM Test:	0.00	0.98
Heteroskedasticity Test: Breusch-Pagan-Godfrey	14.86	0.06
Heteroskedasticity Test: White	8.84	0.36
Jarque-Bera (JB) Normality: Kurtosis (2.96) P-value (0.99)		

Source: author's computations

Based on findings presented in table 8, the estimated model does not suffer from serial correlation nor heteroskedasticity. This is because, the corresponding p-values of 98% for the LM-

Serial correlation test and 36% for the White-Heteroskedasticity test are way above the 5% significance level. The Granger causality analysis was utilized to detect the direction of causation, if any exists. The results are provided in table 9.

Table 8: Granger causality

Null Hypothesis:	F-Stat	Prob.	Outcome
BD does not Granger Cause CAD	3.41	0.07***	Reject
CAD does not Granger Cause BD	1.73	0.20	Accept
LNGDP does not Granger Cause CAD	2.09	0.16	Accept
CAD does not Granger Cause LNGDP	1.99	0.16	Accept
REX does not Granger Cause CAD	0.00	0.99	Accept
CAD does not Granger Cause REX	3.69	0.06***	Reject
RIR does not Granger Cause CAD	9.5	0.00*	Reject
CAD does not Granger Cause RIR	0.01	0.91	Accept

Asterisks (, **, ***) denote significance at the 1%, 5% and 10%, respectively*

We find one-way causation from budget shortfall to current account shortfall, given that the f-statistic of 3.41 is factually significant at the 10% significance level. Thus, we dismiss the null hypothesis of no granger-causality against the alternative hypothesis of granger-causality. These findings are in line with earlier studies i.e. Egwaikhide, Oyeranti, Ayodele & Tchokote, (2002); Mandishekwa et al, (2014). Furthermore, we find one-way causality from real interest rate to current account shortfall and from current account shortfall to real effective exchange rate.

5. CONCLUSION AND POLICY IMPLICATIONS

This study was aimed at testing the validity of the twin deficits' hypothesis within the context of South Africa. We made use of novel time-series techniques such as the ARDL Bounds test and the empirical tests indicated that the budget deficit and current account deficit are cointegrated. Moreover, the real effective exchange rate, real interest rate and GDP were found to have a negative and factually significant effect on the current account whereas the budget deficit, on the contrary, was found to have a positive and factually significant effect on the current account deficit, at least in the short term. Granger causality test revealed one-way causation from budget shortfall to current account shortfall, lagged one period. Given these findings, we fail to dismiss the Twin Deficits Hypothesis and conclude that it holds within the context of South Africa. The policy implication is for the government to fix the fiscal stance to improve the current account stance. Improvements in tax administration efficiency and reductions in non-essential spending are a good starting point.

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