

Current Account Deficit Dynamics in Kenya: Evidence from Time-series Data (1980-2014)

Stephen Benard Mbithi^{1,2*} and Cyrus Mutuku^{2,3*}

¹*Kenya Revenue Authority Investigation and Enforcement Department, Kenya.*

²*Department of Economics, University of Nairobi, Kenya.*

³*Kenya Revenue Authority Research Department, Kenya.*

Authors' contributions

This work was carried out in collaboration between both authors. Authors SBM and CM designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors CM and SBM managed the analyses of the study. Author SBM managed the literature searches. Both authors read and approved the final manuscript.

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ABSTRACT

As a rule of thumb, current account deficit should not exceed 5% of GDP. If it exceeds, it must raise concerns about its sustainability. In Kenya, current account balance deficit increased to 10.5% of the GDP by 2014 and 8.3% in 2015. Empirical evidence shows that there is an unsustainable current account deficit in Kenya. Unsustainable current account deficits are a potential recipe for a currency crisis and current account reversal which have negative implications on macroeconomic stability of a country. This study sought to determine the drivers of current account balance and policies that should be put into place to revert the balance to sustainable levels. It used time series data spanning 1980-2014 and employed VAR and VECM models. The estimated long run co-integrating model revealed that financial deepening in Kenya has no effect on the current account balance at 5%, 10% and 1% statistical significance levels. However, trade openness, oil prices, fiscal deficit, output gap, real effective exchange rate, GDP per-capita, dependency ratio and net financial assets significantly affect current account balance.

*Corresponding author: E-mail: mbithistephen89@gmail.com, mutukucmm@gmail.com;

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1. INTRODUCTION

Macroeconomic policymakers seek to attain both internal and external balance objectives in policy design and management. One way of measuring the external balance position of a country is the current account balance (CAB). The balance is computed by the sum of amounts traded net of imports for both goods and services, incomes earned from abroad in net terms, and the net current amount of transfers from abroad. The net effect of cash inflows and outflows is what is referred to as the net incomes from abroad. They include salaries, dividends, and direct investments returns. On the other hand, current transfers are unilateral transfers with zero returns for example remittances, donations, aid, grants, official assistance and pension [1]. The mathematical representation of the current account is;

$$CAB = X - M + NY + NCT. \quad (1)$$

In Kenya, current account balance has shown persistent deficit for a notable duration between 1980 and 2014. Fig. 1 indicates a surplus balance in the current account, standing at 0.78% GDP in 2003. By 2014, the deficit rose to 10.5% of GDP.

This sharp increase in deficit has created fear about the sustainability of current account deficits given the growing public debt to GDP ratio and pressure on exchange rate. An analysis framework was developed by [2] for analyzing CAB deficit sustainability. According to the framework, CAB is sustainability is closely linked to solvency.

CAB deficit is sustainable if the present value of future CAB surplus matches present debt. This is so because deficit creates a financing debt. The implication of this is that the inter-temporal budget constraint for sustainability is satisfied. Empirically, equilibrium CAB path is achieved if exports and imports are co-integrated. Using this approach, [3,4] concluded that CAB deficit is unsustainable.

This deficit should be matched by equal capital inflows for external balance. However, according to [5], the persistent deficit is one of the challenges to Central Bank of Kenya (CBK) performance as the there is no significance foreign direct investment (FDI) inflows to finance

the BOP negative balances. There are several reasons why unsustainable current account deficits should be of great concern to economists and policy analysts.

Firstly, there is a very high likelihood of investors avoiding assets valued in foreign currency if the CAB is unsustainable. This is because they view the current account deficit as a reflection of the state of an economy. Actually, current account sustainability is a key analysis carried out by investment banks and other key capital market participants. According to [6], a reversal of the CAB could also happen as a result of a drastic decline in demand for country's assets, which could harm the domestic economy. CAB reversal is an economic phenomenon where abrupt stall in the inflow of capital and subsequent significant depreciation lead to a sharp decline in large deficits to small deficits is what is called reversal in the current account. Reversals are disruptive to GDP growth and often causes banking and currency crisis, as witnessed in 1994 and 1997 in Asia and 1999 in Germany [7-9].

Secondly, an accumulation of foreign debt to be redeemed in the future may result from a deficit in the current account, especially for small economies that depend on short term volatile capital inflows to finance CA deficit. Rational domestic investors always anticipate an increase in the future taxes by the government to service and repay the debt. Their investment decisions are pegged on this increases in taxes with negative implications on employment and output. Empirical evidence casts doubt on the sustainability of debt policy in Kenya. Analysis based on a fiscal reaction function approach shows that public debt has breached sustainability conditions, [10]. Contrary, debt sustainability analysis (DSA) report by World Bank gives a clean bill of health to Kenya. However, [11] has criticized the forward-looking DSA by World Bank insisting on a backward-looking approach known as fiscal reaction function.

Thirdly, empirical analysis has revealed that current account is closely linked to key economic growth determinant that includes: Investment, savings, trade competitiveness, capital flows, and exchange rate volatility, [12-13]. It is also a critical research area for economists and policymakers in developed and developing economies. Especially in the wake of 2008-2009

global financial meltdown, [14,3,4,15,12,16,13]. Evidently, world trade imbalances to a large extent accounted for the financial crisis of 2008-2009, [8,9,17,18].

Lastly, although economies can run massive deficits and still retain macroeconomic stability, this is only possible if a reliable deficit financing channel is available. Otherwise, it is a challenge for employment and poverty reduction efforts, particularly when the deficits are caused by rising imports of consumer goods that can be produced by domestic industries. The rule of the thumb is that the deficit should not be above 5% of GDP [2]. At CAB of 10.5% of GDP in 2014, Kenya has already broken the rule. The challenge to long-run economic stability is further magnified by declining prospects for Kenya to accessing international financial aid to finance deficits due to sluggish economic growth and commodity prices in international markets.

A substantial number of studies testing alternative theoretical models have concluded that different factors are underlying current account dynamics. These theoretical approaches include the twin deficit hypothesis, [19], dynamic stochastic general equilibrium [DSGE] model, [13], the intertemporal model [3,4], Overlapping generations models, [20], and stages of development hypothesis [21]. Notably, these findings are quite contradicting and therefore cannot be generalized on other economies. Alternatively, a country specific study which captures institutional and structural characteristics of the economy would be appropriate in deducing the drivers of CAB. Therefore, the objective of this study was to establish the causes of persistent deficits in the CAB in Kenya and explore the possible alternatives for managing the deficits.

2. LITERATURE REVIEW

2.1 Theoretical Literature Review

Analyzing current account imbalances has a standard starting point, the inter-temporal approach, an extension of absorption approach, which has been extended to include fiscal policy and changing international conditions, [22]. It replaces Mundell -Fleming extended version of IS-LM model. This approach analyses the CAB determinants by focusing on the microeconomic perspectives using the investments and savings factors. It observes that the optimizing actions of VARious agents determine the CAB, and that

these behaviors are dependent on VARious macroeconomic outcomes under the budget constraints.

The inter-temporal approach views the CAB as an outcome of forward looking dynamic saving and investment decisions based on expectations of future production, government policy and interest rates, [23]. This approach incorporates both absorption and elasticity view by accounting for macroeconomics determinants of relative prices and analyzing the impact of current account and future prices on savings and investments. This approach is used to investigate the effect saving and investment determinants and macroeconomic shocks or business cycles on the current account balance.

On the other hand, national accounting identity provides a link between current account, fiscal deficits and savings; otherwise known as the twin deficit hypothesis, [8]. The algebraic manipulation is shown as follows. Given national income identity;

$$Y = C + I + G + X - M \quad (2)$$

Where Y is national income, C is consumption, I is investments, G is government expenditure, and $X-M$ is net exports or current account balance.

Similarly,

$$Y = C + S + T \quad (3)$$

meaning that part of income is saved, consumed or taxed. Substituting equation three into equation two, we obtain equation 4.

$$S = I - T + G + (X - M) \quad (4)$$

Rearranging equation four, we get equation five where $CAB = X-M$

$$CAB = (S - I) + (T - G) \quad (5)$$

Equation 5 above reveals that CAB is a function of investments, savings, and fiscal deficit.

The link explains several testable hypotheses. One is [24], where current account deficit is affected by the budget deficit via interest rate and income channels. This model observes that fiscal deficits encourage pressure on the interest rates domestically. This pushes the rates up, which induces the inward flow of capital to an economy.

In turn also, a general experience of exchange rates appreciation is witnessed. Ultimately, the CAB turns to the dire extremes, [25].

Secondly, Keynesian absorption theory argues that a rise in fiscal deficit increases aggregate demand leading to a domestic absorption which eventually worsens the current account balance. However, Ricardian equivalence hypothesis by [26] challenges the link between the two deficits. According to this hypothesis, deficit financing through debt causes no aggregate demand and rates of interest adjustments. Rational consumers are confident about their capability of paying hiked taxes in the future, induced by the need to pay off their debts. This they do committing to save more. The disparity between total investments and expenditure in an economy can be easily connected to the deficit in the current account, hence what causes this imbalance could be the very factors that determine savings and investments such as financial and geographical ones [27].

On the other hand, structural models seem to emphasize on demographic factor, for instance, the overlapping generations model, but this model are likely to produce entirely different predictions on determinants of current account imbalances. Overlapping generations' model (OGM), [20] suggest that fiscal deficit influences the deficits in the CAB by doing generational income distribution; both for the present and the future. The stages of development model argue that countries import more capital asset in earlier stages of development before takeoff hence run in to current account deficit. Structural models also emphasize on savings and its determinant especially demographic profile, [15], and financial deepening, [28].

The elasticity approach, links exchange rate change with the current account changes via production and substitution effect. By allowing deviations in the exchange rates, the clear

effects of prices changes can be observed on demand for both imports and exports through the price elasticity. An assessment of influence of currency, exchange rates and flow of trade can be done on the balance of the current account. The disadvantage of this model is that it since its' a partial equilibrium analysis tool, and focuses only on the trade of commodities, not considering other market behavior determinants, then it is not exhaustive.

An alternative approach to this is the absorption method, [29] which stipulates that macroeconomic VARiables on production and expenditure drive trade balances. According to this approach, negative balances in the current account can be reversed by doing trade imports from other economies, hence managing the excesses in spending and consumption. When income is in excess of consumption, then the CA is adjudged to be in surplus.

In literature, it is observable that the twin deficit hypothesis is widely favored [30,15,8,31,32], while others support twin divergence [15,33]. However, empirical evidence still exists on Ricardian equivalence hypothesis, a challenge to twin deficit hypothesis, [34].

Some studies emphasize on structural factors, [35,36] while other nullify their significance in explaining current account imbalances [37]. Similarly, panel models and VAR models seem to give contradictory results, [38].

2.2 Empirical Literature Review

VARious studies have been done on determinants of current account balance in both developed and developing economies. Notably, these studies have applied different analytical approaches. [39] used panel data for both developed and developing economies to determine the drivers of current account balance. The study established that current

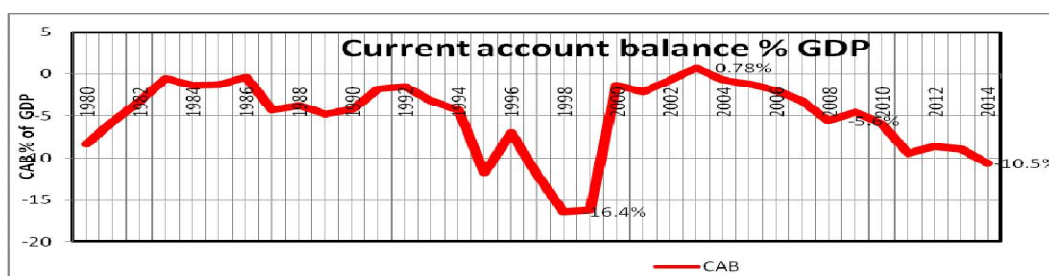


Fig. 1. Current account balance as a percentage of GDP trend [1980-2014]

Source: UNCTAD data

account balances are positively correlated with government budget balances and initial stocks of net foreign assets. These findings are consistent with twin deficit hypothesis. Secondly, among developing countries, measures of financial deepening are positively associated with current account balances while indicators of openness to international trade are negatively correlated with current account balances.

In similar vein, [40] applied inter-temporal consumption smoothing approach on a panel of 17 countries to establish the current account determinants. The study established that determinants of saving and investment decisions, which include factors such as the level of development, demographics, macroeconomic policies and competitiveness, appear to be important in underpinning sustained current account positions in the euro area countries.

Akbas et al. [41] used a panel of G7 countries to determine whether a causal relationship exists among current account deficit, GDP, foreign direct investment, and total credits. Results of the analysis showed a unidirectional causal relationship from current account deficit and foreign direct investment to GDP. However, bidirectional causality was found between current account deficit and total credits. Finally, a unidirectional relationship was found from foreign direct investment to current account deficit and total credits.

Ousseini et al. [42] applied Vector autoregressive (VAR) approach to investigate the effect of money supply (M2), real exchange rate, income, inflation, investment, and household consumption expenditure on the trade and current account balance of West African Economic and Monetary Union, (WAEMU) for the period 1980-2013. Based on VAR decomposition and impulse response functions, the study found a negative and statistically significant effect of money supply, household consumption expenditure on trade Balance. The study also found a significant and positive effect of real exchange rate, income, inflation, and investment on the trade balance. A significant and negative relationship between money supply, investment and current account balance was established. The effect of real exchange rate, income, inflation, and household consumption expenditure on the current account balance was found to be positive and significant as well.

[43] Focused on oil exporting and importing economies in relation to the current account balance. The study found that net oil exports are significantly related to current account surpluses. However, net oil imports often do not influence current account deficits. [44] sought to determine the effect of exchange rate regime on current account balance for sub-Saharan African economies. The results show that flexible exchange rate regimes are more effective in preventing such disequilibria.

3. EMPIRICAL MODEL

The study estimated a VAR and VECM models in trying to elaborate the causes of current account balance in the long run and in the short run respectively. The long run co integrating model took the following functional form;

$$CAB_t = \beta_0 + \beta_1 FB_t + \beta_2 NFA_t + \beta_3 REER_t + \beta_4 DR_t + \beta_5 TO_t + \beta_6 OilPr_t + \beta_7 Y_gap_t + \beta_8 GDP_P + \beta_9 MS_GDP_{t-1} + \varepsilon_t \quad (6)$$

Where $\beta_i, i = 0, 1, 2, \dots, 9$ are parameters to be estimated while ε is a white noise error term? CAB is current account balance, FB is fiscal balance, NFA is net foreign assets, REER is real effective exchange rate, DR dependency ratio, FID is financial deepening, TO is trading openness, OILp is oil prices, and GDP_P is per-capita income. The gap in output gap is a gauge of business cycle indicating a disturbance of output from its prospects in a given years and is computed by the application of the Hodrick-Prescott (HP) filter Method.

3.1 Data Type and Source

The study will employ time series secondary data covering periods between 1980 and 2014. These will be obtained from sources such as CBK, International financial statistics, KNBS and UNCTAD. The data scope was much informed by availability of consistent data for the entire VAR variables.

4. RESULTS AND DISCUSSION

4.1 Diagnostic Tests

The study employed some preliminary and diagnostic tests. A unit root test was carried out to establish whether the time series data are stationary and if not, what is their order of integration are they integrated of the same order. This was confirmed through stationarity test. In testing for stationarity, this study employed Augmented Dickey-Fuller (ADF) and Phillips-

Perron tests. . The study ran a VAR based [45] tests to check for co-integration between VARIables. Based on the characteristic roots, Trace and Eigen statistics was applied in establishing the number of co-integrating VARIables. The Vector error correction model (VECM) will was modeled to capture the short run dynamics while a VAR based co integrating model was estimated to measure the long run VARIables relationship. Serial autocorrelation was investigated using Durbin-watson statistic.

4.2 Stationarity Test

Macroeconomic time series VARIables mostly exhibit time VARIant moments. In testing for stationarity, this study employed augmented Dick-Fuller (ADF) and Philips-Perron tests ADF test was employed with intercept and lag length selected based on the SIC information criterion to ensure that the residuals are white noise. The decision criterion involves comparing the computed tau values with the Mackinnon critical values for rejection of a hypothesis of a unit root.

This test shows that all the VARIables are non-stationary at levels. This means that the individual time series have a stochastic trend and do not revert to average or long run values after a shock strikes and the distributions has no constant mean and VARIance. However the VARIables are integrated to order one, meaning that they are stationary at first difference.

4.3 Tests for Co-integration

Since VARIables have unit root at level, we tested for long run relationship using the [45] approach to establish the co-integrating vectors. Two test statistics (Trace and Eigen) are used to test the number of co-integrating vectors based

on the characteristic roots. For both trace and Eigen statistics, the null hypothesis is at most r co-integrating vectors. The trace statistics is computed as

$$\lambda_{trace}(r) = -T \sum_{i=r+1}^k \ln(1 - \hat{\lambda}_i) \tag{7}$$

The alternative hypothesis is at most k co integrating vectors. The maximum Eigen statistics is computed as,

$$\lambda_{max}(r,r+1) = -T \ln(1 - \hat{\lambda}_{r+1}) \tag{8}$$

The alternative hypothesis is at most r+1 CI vectors. It tests rank r+1 by testing if $\hat{\lambda}_{r+1}$ is zero.

4.4 Estimation of VECM and Co-integrating Model

This part estimates the long run and the short run model using the VAR and VECM approach.

4.5 The Long Run Model Results

The co integrating model in Table 3 shows the coefficients of the long run determinants of current account deficit in Kenya. The model has a 0.85 coefficient of determination (R²) implying that the model explains 85% of the VARIations in the current account. The joint F statistic which measures the general model statistical significance is significant at 5% meaning that the explanatory VARIables used in this model are effective. The Durbin Watson statistic which measures the possibility of linear autocorrelation is 2.1 showing that the error term is not serially correlated. The measures of model fitness like Akaike info criterion, Schwarz criterion and Hannan-Quinn criterion indicate that the model is appropriately parsimonious.

Table 1. Test for stationarity results

VARIABLE	Unit root test with trend and intercept				Conclusion
	ADF		PP		
	Level	1 st Difference	Level	1 st Difference	
MS-GDP	-2.5650	-5.0894	-2.3738	-6.2196	I(1)
Y-GAP	-3.8074	-4.8878	-3.3385	-5.7474	I(1)
Oil_PRICE	-1.03173	-3.7709	-0.6084	-3.9612	I(1)
REER	-1.03171	-3.7709	-0.6084	-3.9612	I(1)
FB	-2.5582	-5.9111	-4.3278	-13.0578	I(1)
DR	-2.6742	-6.3865	-2.4196	-8.9137	I(1)
TO	-3.8042	-4.8878	-3.5162	-5.7474	I(1)
CAB	-2.4835	-6.2476	-2.6036	-6.2678	I(1)
GDP_P	2.9549	-3.0933	2.1513	-3.0108	I(1)

I(1) integrated of order one Source: Author, (2016)

Table 2. Co integration test results

Series: CAB M2_GDP FB DR GDP_P NFA_GDP OPRICE REER TO Y_GAP				
Unrestricted Co-integration Rank Test (Trace)				Prob.**
Hypothesized	Eigen value	Trace	0.05	
No. of CE (s)		Statistic	Critical value	
None *	0.968415	493.9553	251.2650	0.0000
At most 1 *	0.950822	379.9382	208.4374	0.0000
At most 2 *	0.905104	280.5319	169.5991	0.0000
At most 3 *	0.792812	202.8178	134.6780	0.0000
At most 4 *	0.732415	150.8716	103.8473	0.0000
At most 5 *	0.703141	107.3671	76.97277	0.0000
At most 6 *	0.531189	67.28867	54.07904	0.0022
At most 7 *	0.452837	42.28937	35.19275	0.0073
At most 8 *	0.347428	22.39008	20.26184	0.0251
At most 9	0.222486	8.304555	9.164546	0.0726

Trace test indicates 9 co-integrating eqn(s) at the 0.05 level
 * denotes rejection of the hypothesis at the 0.05 level
 **MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Co-integration Rank Test (Maximum Eigen value)				
Hypothesized	Eigen value	Max-Eigen	0.05	Prob.**
No. of CE(s)		Statistic	Critical value	
None *	0.968415	114.0171	65.30016	0.0000
At most 1 *	0.950822	99.40629	59.24000	0.0000
At most 2 *	0.905104	77.71408	53.18784	0.0000
At most 3 *	0.792812	51.94620	47.07897	0.0139
At most 4 *	0.732415	43.50449	40.95680	0.0253
At most 5 *	0.703141	40.07847	34.80587	0.0107
At most 6	0.531189	24.99931	28.58808	0.1344
At most 7	0.452837	19.89929	22.29962	0.1046
At most 8	0.347428	14.08553	15.89210	0.0941
At most 9	0.222486	8.304555	9.164546	0.0726

Max-eigen value test indicates 6 co-integrating eqn(s) at the 0.05 level
 * denotes rejection of the hypothesis at the 0.05 level
 **MacKinnon-Haug-Michelis (1999) p-values

Source: Author 2016

Table 3. Long run co-integrating model

Dependent VARIABLE: CAB			t-Statistic	Prob.
VARIABLE	Coefficient	Std. error		
M2_gdp	.6219107	1.261432	0.49	0.622
To	.0397637	.0053678	7.41	0.000
O_price	-1.704017	.2520971	-6.76	0.000
FB	-11.64419	.672518	-17.31	0.000
Y_gap	-147.981	64.13219	-2.31	0.021
Reer	-.7887681	.2624766	-3.01	0.003
GDP_P	-.5290175	.0576354	-9.18	0.000
DR	-3.944485	8979051	-4.39	0.000
NFA_GDP	-.8640198	.158209	-5.46	0.000
constant	1.869563	0.018265	-2.27	0.0302
R-squared	0.853168		Durbin-Watson stat	2.179206
F-statistic	3.522037			
Prob(F-statistic)	0.004555			

Source: author 2016

Table 4. Vector error correction model

Vector Error Correction Estimates	
Co-integrating Eqt:	
Error Correction:	D(CAB)
ECMt-1	-0.145766 (0.07476) [-1.94966]*
D(CAB(-1))	-0.338615 (0.17810) [-1.90121]
D(DR(-1))	-3.863527 (1.65520) [-2.33417]*
D(GDP_P(-1))	0.007810 (0.01628) [0.47967]
D(FB(-1))	-0.148729 (0.15594) [-0.95374]
D(M2_GDP(-1))	0.029352 (0.28478) [0.10307]
D(NFA_GDP(-1))	-0.108101 (0.04682) [-2.30904]
D(OPRICE(-1))	0.001116 (0.07914) [0.01410]
D(REER(-1))	0.228225* (0.07929) [2.87837]
D(TO(-1))	-0.000522 (0.00116) [-0.44939]
D(Y_GAP(-1))	-25.95129 (19.7232) [-1.31578]**
C	-3.451999* (1.75115) [-1.97128]
R-squared	0.592387
Sum sq. resids	187.5460
S.E. equation	2.988438
F-statistic	2.774499
Log likelihood	-75.49399
Akaike AIC	5.302666

The results on long run co-integrating model reveal that financial deepening in Kenya has no effect on the current account balance at 5%, 10% and 1% statistical significance levels. However, trade openness, oil prices, fiscal deficit, output gap, real effective exchange rate, GDP per-capita, dependency ratio and net financial assets significantly affect current account balance. A one percent improvement in trade openness

leads to about 4% improvement in CA balance. This finding emphasizes that a more open economy is likely to balance its current account easily than a less open economy.

On the other hand, oil price has a significant negative effect on the current account balance. This implies that when oil prices increase by one dollar per barrel, the current account worsens. This is more explained by the fact that Kenya being a net importer of oil may not be able to control the international price market of crude oil. The results from the co integrating model also show that fiscal balance has significant effect on the current account balance. As fiscal deficit widen, the current account balance also worsens. A shilling increase in fiscal deficit leads to 11 shillings worsening of the current account balance. This finding amplifies the link between current account and fiscal balance in the line of twin deficit hypothesis. In addition, the results validate the Keynesian view of the relationship between the two deficits and nullify the Ricardian equivalence view. The later postulates that fiscal deficit has no effect on the current account deficit. The Keynesian view argues that domestic agents tend to spend more of their disposal income resulting from expansionary fiscal policy on imports worsening the CA deficit.

Notably, output gap (y-gap) which measures business cycles in the economy in form of upswings and down swings in economic performance has a negative effect on current account balance. This implies that internal economic shocks or instability which disrupt domestic production of export goods and trigger more imports ultimately worsen the current account deficit. Real effective exchange rate is a measure of economic competitiveness in international trade. In this study, the coefficient is negative and significant implying that changes in REER impacts on economic activity by altering the relative returns in the tradable and non-tradable sectors.

From the estimate long run model, GDP per capita has a negative significant effect on the CA deficit. This is consistent with both the absorption model and the stages of growth hypothesis. Absorption approach to current account sums up the Keynesian macroeconomic view which claims that an increase in disposable income raise consumption of both domestic and external goods and services hence worsening the current account position. Alternatively, the stages of growth hypothesis postulates that a developing

economy needs to import substantial capital goods during the early stages of economic development hence running into CA deficit. However once the economy develops, it is likely to produce massively for external consumption hence reducing the current account deficit.

Finally dependency ratio and net foreign assets are negatively impacting on the current account balance. High dependency ratio reduces savings rate, increases consumption and CA worsens. In addition, high net foreign assets have negative impact on the current account position. The net foreign assets, according to the inter-temporal approach, acts as a key CA balance determinant, and the initial high NFA quantities are linked with the succeeding expansion of CA balances. Future flow of incomes in terms of interest, dividend inflows and outflow bring about this negative effect. Countries with high trade deficits can sustain high trade deficits while remaining solvent these implies a negative association between NFA and CAB.

4.5.1 The short run results-vector error correction model (VECM)

The error correction coefficient is -0.145766 as shown in the error correction model in above Table 4. This suggests that 15% of any disequilibrium is corrected in every year. In addition, reveals, it implies that the explanatory VARiables Granger-cause current account balance in the long run.

5. CONCLUSIONS

The study examined the drivers of current account persistent deficit in Kenya using time series data spanning 1980-2014. The study employed VAR and VECM models to capture the short run and long run dynamic relations ship between current account deficit and selected macroeconomics and demographic Variables. The findings are: the level of financial deepening in Kenya has no effect on current account deficit. However, current account deficit is significantly driven by trade openness, fiscal deficit, business cycles, fiscal balance, trade competitiveness, dependency level and stage of economic development and oil prices. Therefore, we recommend policies to revert CA deficit to sustainable levels based on the above findings.

6. RECOMMENDATION

The current account deficit in Kenya is unsustainable. It has dominantly depicted a

persistent deficit for the period running from 1980-2015. The deficit has driven external debt upwards, increased pressure on exchange rate and now puts Kenya at a risk of current account reversals. To curb this problem, the government is recommended to:

1. Kenya needs to adopt fiscal consolidation efforts geared towards reducing fiscal deficit. Fiscal balance in Kenya is largely determined by efficiency of revenue authority. For inter-temporal budget constraint to be satisfied, Kenya needs to run a fiscal surplus consistently. Stringent measures on tax collection and prudence in all fiscal authorities are crucial. Efforts should be made to consistently increase government revenue to match expenditure by expanding tax net to capture all taxable individuals and firms. This would ensure that expenditure do not move too far away from revenue. In addition Authorities may consider reducing tax exemptions to avoid revenue leakages
2. Fiscal rules in form of ceilings, governing medium term expenditures and debt should be adopted. For instance, fiscal anchors such as a Fiscal Responsibility Act as in Ghana, Switzerland and Chile would be useful so as to insulate budgetary process from political influence. Independent fiscal policy committees similar to independent central banks would be relevant. However, such acts are successful if they incorporate some exit clauses.
3. Kenya needs to take steps on measures to shield its economy form eternal oil shocks. These measures include promoting a structural change toward green sources of energy, the creation of strategic petroleum reserves and adopting market hedging strategies.
4. Improving export competitiveness: The government needs to improve Kenyan good competitiveness in world markets though reducing taxes on inputs for exportable goods and subsidizing exporting industries.
5. Kenya needs a proper fiscal and monetary policy mix. These policies are Key in managing business cycles by smoothing economic growth process. Monetary policy can be used to ensure exchange rate stability while fiscal policy can be used inform of tariffs on luxury imports to

enforce expenditure switching patterns among consumers.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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