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ECONOMETRIC ANALYSIS OF FISCAL PERFORMANCE IN KENYA

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Abstract

Improving fiscal performance by reducing budget deficits has for long been at the heart of many governments in developing countries. Budget deficit in all cases whether monetized or not, tends to generate inflationary pressures triggering uncertain crisis in an economic system. Majority of the developing nations, Kenya inclusive have had a dismal performance by attracting negative budget balances over the years. To contain fiscal vulnerabilities, there is need to understand factors behind fiscal performance in Kenya. The objectives of this study are to establish the trends and extent to which these factors determine fiscal performance in Kenya. The study employed unrestricted Vector Autoregressive (VAR) model in estimating how macro-economic, political and institutional factors affect fiscal balance using longitudinal data collected, consolidated and analysed for the period 1963 to 2013. In the short run, both the first and the second lags of fiscal balance, Treasury bill, Tax revenue and inflation significantly influenced fiscal balance. On the other hand, only the first lags of real gross domestic product per capita growth rate, the first differences of the Total Debt service and the Gross Government Investment affected fiscal balance significantly whereas only the second lags of the first differences of both the current account and the ratio of broad money to GDP were found to significantly determine fiscal balance. The study suggests therefore that the government should intervene through refocusing on the existing fiscal policies to mitigate the anticipated future problems likely to be associated with the existence of unchecked behaviors of these determinants. Finally, the government and the relevant agencies need to consider adjusting Treasury bill rates downwards to increase fiscal balance. As well, the government should be able to encourage internal investment by the local and encourage internal borrowing at affordable interest rates. This may ultimately spur economic growth through varied sectors of the economy. The study emphasises on sound fiscal policy which is a critical determinant of long-term economic success and recommends Kenyan government to balance her financial affairs and avoid imposing a tax burden. Tax burden becomes a disincentive for people to work hard, save, invest, and be entrepreneurial, while still ensuring adequate and efficient public services.

Key Words: *Econometric, Longitudinal and Fiscal Performance, Kenya*

Introduction

Fiscal performance is a framework within which policy is successfully conducted in open economies to promote internal (price stability and full employment) and external equilibrium (sustainable balance of payments). According to Talvi and Végh (2000) fiscal performance refers to the overall government performance in terms of revenue and expenditure which assess its public debt sustainability and

sovereign risks. Improving fiscal performance by reducing budget deficits has for long been at the heart of many governments and this is due to the negative consequences such as, high inflation arising mainly from increased money supply by the government to pay off debt, over indebtedness from increased borrowings that has resulted to huge amounts of principal and interest repayments, decreased sovereignty as a result of impositions of Structural Adjustment

Programmes (SAP) by donors and crowding out of the private sector as a result of increased domestic borrowings, all of which have resulted to slower economic growth in most developing countries (Kosimbei, 2009).

Majority of the developing nations have had a dismal performance by attracting negative budget balances over the years (Miller, 1983). Fiscal deficit is defined as excess of government total expenditure over its income; hence a government injects more money into the economy than it gets by taxation, hence increased business activity brings enough additional revenue to cover the shortfall (Black 1997). Over the last few years, internationally, public finance has been characterised by rising deficits and public debt. In a bid to achieve the goal of sustainable public finances (as well as reduced national debt levels), many countries have adopted some form of fiscal rules. However, in most developing countries, spending has been growing at unsustainable levels. Fiscal vulnerabilities have increased in a number of countries.

Historically, the government of Kenya has had a mixed fortune in terms of fiscal performance. The Country has had budget deficits since independence which is mainly attributed to over expenditures due to dwindling resources brought about by poor macroeconomic performance, among other causes. This has contributed to the weak overall development performance, and high public debt and the associated high interest rates. This has made it a perpetual victim of poor fiscal performance by recording budget deficit. Kenya has experienced a fluctuating fiscal deficit since early 1990s. This has mainly been caused by the government's increased expenditure to provide for public investment and public consumption. However, over time, the government has adopted several strategies aimed at reducing the budget deficits and consequently attain surplus. Among the strategies include: measures to widen the tax base and various austerity measures to cut down on its recurrent expenditures as spelt out in Finance Bills of 2010 & 2011.

Over two decades ago, a number of tax reforms were introduced which included the detachment of the department of revenue collection from the National Treasury and also there was the adoption of the Medium term expenditure framework. This formed part of the requirements that the development partners insisted the Government to adopt to

facilitate smooth flow of donor aid. The reforms in the budget process entailed setting realistic 3 year targets in terms of expenditure and revenue. It also entails aiming at key priorities in terms of Government funding priorities for the medium term period. Many developing countries like Kenya have been unable to constrain the growth of their public domestic debt to ensure that sufficient revenues remain available after debt service payments to finance other vital government recurrent and development expenditures. Stagnating real revenue receipts, unending expenditure pressures and reduced external donor support especially in the 1990s among other factors, have resulted in accumulation of high stocks of domestic debt in developing countries.

This elicited theoretical exploration on this aspect which led to these questions; what explains persistent budget deficits? What are the theoretical implications of persistent budget deficits? Theories of budget deficits run in two general directions. There are some theories that look at the effect of fiscal deficits on economic variables. Others look at the reverse direction, that is, what macroeconomic and fiscal variables (including budget rules and institutions) affect and determine fiscal deficits. For example, Barro's *tax smoothing theory* postulates that it is the desire of Government to minimize distortions associated with raising taxes that causes or determines budget deficits. The model implies that deficits and surpluses arise when the ratio of public purchases to the overall national output is expected to have some variations.

Second theory is the *Leviathan Theory* which postulates that the Government as a 'leviathan' the beast tries to extract an extra rent from the citizens by raising taxes and budget deficits in order to provide public goods. It says that Government tries to control as much as possible of the economy (Brennan and Buchanan 1980). But this is inconsistent with the notion but Government spending would increase and then level down as it approaches stable spending. Thirdly, it is the political theory of government debt that realigns itself on budget deficits that focused on the aspect of redistribution of government debt across generations. According to Cukierman and Meltzer (1989) individuals who are negatively constrained in bequest are inclined to transfer resources from future generations to finance present consumption, via negative bequests.

These individuals will advocate present tax rate reductions without an accompanying decrease in current government expenditures.

Finally, positive theory of government deficit emphasizes that Governments uses public debt to influence the choice of successors. It provides that the growth of public debt depends on the strategic interaction of different governments in different periods due to their difference in fiscal policies. The theory shows that the equilibrium stock of debt tends to be larger than with a benevolent social planner certain of her future reappointment. In effect, disagreement among alternating governments and uncertainty about the elections' outcome prevent the party in office from fully internalizing the cost of leaving debt to its successors (Alesina and Teballini, 1987).

In Kenya, fiscal balance has been quite unstable, thereby impacting negatively on the country's growth process and other macroeconomic variables. Coupled with high levels of public debt and debt service ratios, a huge fiscal deficit undermines economic stability and growth. In some years, fiscal deficit as a percentage of GDP has moved outside the target of three percent as projected by the World Bank and Ministry of finance. For instance, over the period 1990 to 2010, fiscal deficit on cash basis averaged five per cent of GDP. A number of reforms aimed at addressing the determinants that are believed to push up the fluctuating budget deficit have been undertaken since adoption of a flexible exchange rate regime and liberalisation in the 1990s to date. However, Fiscal performance has been unpredictable and fluctuating.

Most studies (Sirengo, 2008; Kosimbei, 2009; Ndegwa, 2012; Okelo *et al.*, 2013) on budget deficit in Kenya have mainly focussed at addressing the adverse effects of budget deficit in the economy and pointing out the main variables that contributes to the same but no study has clearly come out to specifically analyze the following determinants; Foreign aid, level of development of financial markets, tax effort and level of fiscal decentralization despite them recognizing their significance. Thus it is this particular backdrop that this study gives an analysis of the aforementioned determinants in as far as the Kenya context is concerned. Specifically, the study mainly establishes the extent to which these determinants (factors) influence country's fiscal performance. Attiya *et al.*, (2010) emphasizes that a country's fiscal performance is important

in assessing its public debt sustainability and sovereign risks. Fiscal performance assists in the choice of policy interventions that guide a country's growth process, while maintaining sustainable debt levels (Isabel and Hernandez, 2000).

Literature Review

Budget deficits are thought to increase during periods of economic downturns and reduce during periods of expansions. However, Roubini and Sachs (1989) assert that factors that affect fiscal performance can be grouped into, economic and political factors. A study by Attiya *et al.*, (2010) found that high income, high inflation rate and large budget to GDP ratio are associated with large budget deficits. Also, high corruption, low institutional quality (legal and bureaucracy) and conflicts (internal, external, ethnic and religious) cause more fluctuations in the budget deficit while Diokno (2007) revealed that inflation, domestic liquidity, capital outlays, and tax effort are statistically significant determinants of fiscal balance in Turkey. Hassan and Kalim (2009) found out that that GDP per capita and money supply are significantly affecting fiscal deficit in Pakistan and Genius and Irene (2013) found out that all the determinants of budget deficits, except for foreign debt have a positive impact on budget deficits. Easterly and Schmidt-Hebbel (1994) found no simple relationship between fiscal deficits leading to inflation. Other studies conclude that the level of development of the financial market is believed to be a major factor affecting fiscal balance. A more developed financial market is believed to have various forms of funds to procure goods and services without incurring costs (Denizer *et al.*, 1998; World Bank, 2007). Other empirical evidence, however, has shown a negative relationship between fiscal deficit and financial market development. Woo (2001) found that an increase in financial depth is negatively associated with fiscal stance. A more liquid banking system can more easily finance fiscal deficits by issuing bonds without having to resort to inflationary finance. Aizenman and Noy (2003) found similar evidence that a budget surplus has a negative impact on financial openness for developing countries. In developing economies, financial crises tend to lead to recessions that in turn result in lower budget deficits because government reduces its spending. Eschenbach and Schuknecht (2002)

assert that asset prices may also have an impact on fiscal balances through the tax system. The impact could be through tax revenues on capital gains and turnover related taxes. On the other hand, a more developed financial sector could provide improved access by the government to debt, and thereby give rise to a larger budget deficit (Isabel and Hernández, 2008). Further, according to Roubini and Sachs, (1989) political instability is another cause for large fiscal deficit. A government feels that it is less likely to be re-elected into office may accumulate a higher level of public debt, leading to a high fiscal deficit.

In Kenya, Sirengo (2008) indicate that Treasury bill rate positively and significantly affects fiscal balance, while total debt service and trade openness negatively and significantly affect fiscal balance. However, real per capita GDP is not a significant determinant of fiscal balance. Using error correction model, the results indicate that real per capita GDP positively and significantly affects fiscal balance, while total debt service and trade openness have a negative and significant impact. On the other hand, Gongera *et al.*, (2013) evaluated the economic strategies and measures that the Government can put in place to reduce budget deficits. The study concluded that the tax policy and the government expenditure were the main causes of the persistent budget deficits in Kenya. Also, they found out that inflation was heavily contributing to the budget deficit in Kenya hence recommended that the government initiates various fiscal and monetary policies to contain inflation to manageable levels.

In summary, it's evident that the field of fiscal performance, most of the studies have focused on macroeconomic factors. There is a gap in terms of the factors that empirical studies have seen to affect fiscal performance relating to a number of policy and institutional factors including issues like the level of financial market development, level of intergovernmental fiscal transfers (decentralization, LATF, CDF in Kenya), Tax effort and foreign aid. It is evident from the above empirical literature that fiscal balance is determined by a number of macro-economic, political and institutional factors. Also it is emerging that in the Kenyan context there is need to carry out an in-depth empirical analysis of the other factors not covered by the

earlier studies. This will also incorporate other fiscal reforms that have been implemented from the 1990 to 2013. This study will endeavour to capture the above factors whether macro-economic or policy in nature and document their relationship and the extent of their effect in relation to Kenyan case.

Methodology and Data

The study adopts the three gap model used by Sirengo (2008). The model has been selected because it is relevant to the Kenyan case and also that it is easier to make policy inferences from the findings. The government budget is analyzed in the context of the three-gap model as postulated by Bacha (1990) and Mwegu *et al.*, (1994). The national income identity of a small open economy is presented as:

$$Y = C + I + G + X - M \dots \dots \dots (1)$$

Where; Y is national income, C is private expenditure, I is government investment, G is government expenditure, X is exports, and M is imports.

Assuming that national income includes taxes (T), the study derives the disposable income (Yd) and rewrite equation (1) as:

$$Y_d + T - C = I + G + X - M \dots \dots \dots (2)$$

Then introduce savings as the difference between income and private consumption. Re-arrange the terms to get a new identity in terms of fiscal gap, exports-imports gap (foreign exchange gap) and the savings gap as follows:

$$T - G = I - S + X - M \dots \dots \dots 3$$

Equation (3) indicates that fiscal gap is equal to the sum of the investment-savings gap and exports-imports gap. The fiscal gap which is also referred to as fiscal balance determined by factors that affects both the investment-savings gap and the exports-imports gap. Therefore transform equation (3) from an identity into a behavioural equation for estimation purposes. This gives equation (4) below:

$$FB_t = \alpha_0 + \alpha_1 GDPPCG_t + \alpha_2 TBR_t + \alpha_3 I_t + \alpha_4 TDEBT_t + \alpha_5 INF_t + \alpha_6 TRV_t + \alpha_7 M3_t + \alpha_8 CA_t + \alpha_9 GGI_t + \mu_t \dots \dots \dots (4)$$

Where:

FB is fiscal balance to GDP ratio; GDPPCG is real GDP per capita growth rate; TBR is the Treasury bill rate; TDEBT is the total debt

service as a proportion of total exports; TRV is Tax Revenue or tax effort; INF-Inflation rate; M3- Ratio of Broad money to GDP; CA- Current account balance and GGI-Gross Government Investment whereas μ_t is an error term, while subscript t is a time period.

The Vector Autoregressive analysis is applied on the longitudinal data. In VAR model the short run identifying restrictions do not depend on the specification of the reduced form VAR model, whereas, the long run restrictions is less general in that it requires some model variables to be first order integrated or others to be integrated of order zero leading to misspecification of integrating properties of the individual series. The study employs this estimating model since most of the robust methods are designed for VAR models based on the short run identifying restrictions, only, of course, as a shift from exact unit roots immediately invalidate the use of long run identifying restrictions.

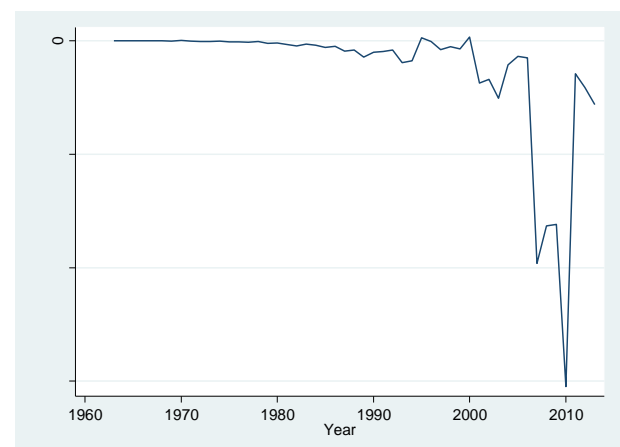
The fiscal balance to GDP ratio will be taken as dependent variable; while changes in GDP per Capita, inflation, Treasury bill rate, Broad money, Inflation, Tax effort Ratio of broad Money to GDP, Current account balance and gross fixed capital formation will be taken as independent variables with their respective lag variables. The data used in the study is sourced from the Kenya Economic Surveys, Statistical Abstracts, International Monetary Fund's *International Financial Statistics* and World Bank's *World Development Indicators* covering the period 1963 to 2013. The data is computed as ratios.

Results and Discussions

Factors behind the performance of the fiscal balance are comprehensively analysed and their relationship and the extent of their effects objectively evaluated. This section reveals how macro-economic, political and institutional factors affect fiscal balance using time series data collected, consolidated and analysed for the period 1963 to 2013. The study revealed that among the study variables, only three had full information¹ (51 years), followed closely by four other variables with 50 years, whereby TBR, TDEBT and TRV information available

covered 45 years, 39 years and 22 years respectively. The fiscal balance and current account balance have a negative mean of -24884.38 and -683.036 with a standard deviation of 57608.19 and 896.4168 respectively. Inflation and Tax revenue have an average of 10.87882 and 17.4844 but the former exhibit unique range of between -0.171501 and 45.97888 while the later has the lowest number of observations and thus a standard deviation of 1.663564. More details are as indicated in the following trend analysis of fiscal balance. This being the dependent factor, figure 1 below indicates that from the year 1963 to around year 2000, Kenya's fiscal performance was constant and was almost equal to GDP. However, from then on-wards, it drops drastically to deficit of 300 billion Kenya Shillings by the year 2010 where again it rose to 200 billion Kenya shillings by the year 2011.

Figure 1: Fiscal balance



¹ Full information implies that data for all years considered was obtained/ available. The total numbers of years are 51, (1963-2013). They include INF and FB.

Testing for Unit Roots

If variables are non-stationary, there is a tendency of the estimates to change over time. Unit root tests are used to detect non-stationary in all the variables. This characteristic and thus presence leads to spurious estimates. Therefore, if variables are found to be non-stationary, successful lagging is applied until the bias is eliminated. The null hypothesis in this case is that the variable under consideration is non-stationary or has got unit root. Augmented Dickey Fuller test is applied and we realize that out of all ten variables, only three (TDEBT, M3 and CA) variables are found to be non-stationary. However, upon conducting the first differences, they become stationary at lag zero. To validate the model, the study have ensured that all coefficients of the model are negative².

Table 1: Testing for Stationary

Variables	P-values at lag (0)	P-values at lag(0) after 1 st differencing
FB	0.001	-
GDPPCG	0.000	-
TBR	0.002	-
TDEBT	0.461*	0.0000
INF	0.001	-
TRV	0.007	-
M3	0.399*	0.000
CA	0.232*	0.0000
GGI	0.9863*	0.0000

*These variables have a unit root and H₀: Variable is non-stationary³.

Cointegration Analysis

This test is necessary apart from stationary of the variables. There is a need to establish the kind of relationship that is whether there is a long run or short run relationship between the dependent variable and explanatory variables. An assumption is made that the initial variables have respective unit roots⁴ at level, which allows us to employ Johansen test of Cointegration. The study assumed that the variable under consideration is non-stationary without testing. H₀: There is no Cointegration and H₁: There is Cointegration. Note that when variables are cointegrated, we run Vector Error Correction model (VEC Model). Upon conducting Johansen test for Cointegration (with a maximum of two lags⁵), it was found out that our variables are not cointegrated⁶ implying that in the long run these variables do not move together. Since there is no Cointegration, unrestricted VAR model is estimated.

Table 2: Johansen test for Cointegration

Trend: constant			Number of observations = 20		
Sample: 1993 - 2012			Lags = 2		
maximum				max	5% critical
rank	parms	LL	Eigen value	statistic	value
0	90	.	.	.	57.12
1	107	.	1.00000	.	51.42
2	122	.	1.00000	.	45.28
3	135	.	1.00000	.	39.37
4	146	.	1.00000	639.4925	33.46
5	155	.	1.00000	579.5693	27.07
6	162	.	1.00000	484.2227	20.97
7	167	.	1.00000	468.7525	14.07
8	170	.	1.00000	2.1717	3.76
9	171	.	0.10290		

² $\Delta Y_t = \beta_1 + \partial Y_{t-1} + a_t + \epsilon_t$

³ Condition: If the p-values are less than 0.05 we reject the null.

⁴ However, these variables with unit roots if converted by first differences, they will become stationary. This is the condition.

⁵ Because of collinearity, the information criteria are not able to give the appropriate number of lags, instead they are reduce to a maximum of two lags.

⁶ Variables cease to be cointegrated if the test statistic is less than the critical value.

In the type⁷ of the VAR model we estimate, there are two major issues, which includes the presence of short run causality and long run causality. However, we are aware that the latter is absent in our variables and thus we can comfortably say we have short run causality which runs from a particular explanatory variable to the dependent variable.

Estimation of a Vector Autoregressive Model

Non-stationarity behaviour and high persistence are part of characteristics of most economic variables. That is why series for pre-test for unit ratio and cointegration prior to the unrestricted VAR analysis is necessary in order to determine the appropriate transformation that renders the data stationary. However, the pre-tests conducted suffer from lack of robustness for small deviations from unit roots and cointegration.

Table 3: Vector Autoregressive Results for fiscal performance

EQUATION	PARMS	RMSE	R-SQ	CHI2	P>CHI2	
FB	19	52436	0.9790	932.5687	0.0000	
VARIABLES	COEFFICIENTS	STD. ERR	Z	P>Z	CONFIDENCE INTERVAL	
FB						
FB						
L1.**	0.7703801	.1529649	5.04	0.000	.4705745	1.070186
L2.**	-0.7132784	.238202	-2.99	0.003	-1.180146	-.2464111
GDPPCG						
L1.	8685.283	4770.654	1.82	0.069	-665.0266	18035.59
L2.	282.1931	3680.137	0.08	0.939	-6930.743	7495.129
TBR						
L1.**	7369.405	1101.543	6.69	0.000	5210.42	9528.391
L2.**	-7077.112	1967.644	-3.60	0.000	-10933.62	-3220.601
DTDEBT						
L1.**	8168.574	2444.896	3.34	0.001	3376.667	12960.48
L2.	502.0139	1449.087	0.35	0.729	-2338.144	3342.171
INF						
L1.	3416.123	1870.57	1.83	0.068	-250.1273	7082.373
L2.	-4325.782	2421.81	-1.79	0.074	-9072.441	420.8777
TRV						
L1.**	18418.12	7992.61	2.30	0.021	2752.889	34083.34
L2.**	-41892.07	14818.25	-2.83	0.005	-70935.31	-12848.84
DM3						
L1.	-1796.269	4095.028	-0.44	0.661	-9822.376	6229.838
L2.**	-28453.39	5663.715	-5.02	0.000	-39554.06	-17352.71
DCA						
L1.	44.45929	35.16335	1.26	0.206	-24.45961	113.3782
L2.**	51.09543	13.90386	3.67	0.000	23.84436	78.3465
GGI						
L1.**	-31425.36	8889.944	-3.53	0.000	-48849.33	-14001.39
L2.	24073.59	14874.51	1.62	0.106	-5079.913	53227.1
_cons	444908.5	236300.9	1.88	0.060	-18232.66	908049.7
Sample: 1993 – 2012	No. of observations = 20					
Log likelihood = 5654.847	AIC = -					
FPE = -2.6e-103	HQIC = -					
Det (Sigma_ml) = -1.3e-117	SBIC = -					

*These are the first differences of TDEBT, M3 and CA.

**These variables are significant at 5% significance level.

Source: Author's computation from data with the aid of STATA.

Considering table 3 below, we confirm that all the variables under unrestricted VAR model are significant. This means that lags of FB, GDPPCG, TBR, DTDEBT, INF, TRV, DM3, DCA, GGI and their

⁷There are three types of VAR models i.e. VAR in levels, VAR in first difference or VECM and whenever a decision is made, it depends on pre-test for unit roots and Cointegration.

respective lags significantly⁸ affect fiscal balance. As can be further be observed from Table 3 above, majority of the variables are highly significant in determining the fiscal performance. Their p-values are less than 0.05. However, it is important to note that differenced VAR specification is not robust to small frequency co-movements similarly to case of differenced unrestricted VAR whereby lack of robustness is expected to characterize the behaviour of specification based on the pre-test of a unit root given that the pre-test will select differenced specification with probability approaching one when the process is integrated. Nevertheless, 97.9% of the total variations explain fiscal performance in Kenya while the rest of the variations are accounted to other factors not included in the model.

In estimating the effects of the determinants of fiscal balance performance in Kenya, fiscal performance affects itself significantly both positively and negatively through its first and the second lags respectively. This concurs with the findings of Adedeji and Williams (2007) who in their study found that fiscal stance is strongly and positively influenced by the fiscal balance in the previous period, hence under scoring the risks of a pro-cyclical fiscal policy stance. From the study it was further established that Gross Domestic Product per capita increase fiscal balance through both its first and second lags although it is not a significant determinant. This is contrary with the study conducted by Hassan and Kalim (2009) in Pakistan who found out that GDP per capita to be significant factor that affect fiscal deficit. Unlike GDP per capita growth rate the Treasury bill rate through its first lag increases fiscal balance while the second lag of the Treasury bill rate reduces the fiscal balance. Both of them significantly affect fiscal balance positively and negatively respectively.

On the other hand, both the first and second lags of Total Debt Service from the findings positively affect the fiscal balance significantly except the second lag which is insignificant. This implies that there is a reduction on excess borrowing for either public expenditure on capital or recurrent account which could lead to constant rise in the level of indebtedness. This therefore, increases fiscal balance. This contrary with the study findings by Hassan and Kalim (2009) who found out that the first Total debt service lagged by one year reduces

fiscal balance. Also, the first and the second lags of inflation rates show positive and negative effects to fiscal balance and they are insignificant. The sign might not matter so much since it depends on the direction of spending. From the granger causality test, it is revealed that inflation does not cause fiscal balance in the short run which concurs with the finding presented by Easterly and Schmidt-Hebbel (1994) who established that inflation was insignificant and did not cause fiscal balance. Nevertheless, the last second year of inflation as suggested by Gongera *et al.*, (2013) that in Kenya, inflation has contributed to heavy budget deficits through the last second year of inflation.

Tax revenue which in this case indicates tax effort significantly affects fiscal balance positively and negatively through its first and second lags respectively. Increased tax revenue would lead to improved fiscal balance. This concurs with the study by Diokno (2007). This study further revealed that the first difference of the current account balance also in the short run significantly affects fiscal balance whereby the last one year and the last two years of the first difference of current account balance, positively affect fiscal balance except the former which is insignificant. Also, the Quantity of money in an economy determines many activities ranging from micro to macro levels. The study revealed that the first difference of broad money is statistically significant and negatively affects fiscal balance through its first and second lags except the second lag which is insignificant. This is in-line with Woo (2000) who illustrated a negative relationship between fiscal balance and financial markets development. From the study in Pakistan by Hassan and Kalim (2009) which concurs with our finding relating to the second lag of broad money whereby they established significant relationship of money supply and fiscal deficits but contrary to the first lag which is insignificant. On the other hand, the first and second lags of the gross government investment affect fiscal balance negatively and positively. However, the first lag affects fiscal balance significantly whereas the second lag is insignificant.

Conclusions and Recommendations

Conclusions

Kenya has been dependent on foreign aid and borrowing to finance capital and social investments since 1963. Consequently, Kenya's has been on the rise in the effort of catering for

⁸ The p-values are less than 0.05

its public consumption and investments. Therefore, fiscal deficit has been accumulating leading to high inflation, public debt and other challenges like reduction in government savings. Failure to address reduction in fiscal balance may affect private sector through what is termed as crowding out of investment. This study has been conducted with the main objective of evaluating the performance of fiscal balance in Kenya and the nature of such behaviour. This is because as suggested elsewhere in this study, fiscal performance is critical in predicting the behaviour of other macroeconomic factors and more specifically it can forecast its public debt sustainability and sovereign state. Considering the importance of fiscal performance especially on controlling public debt, we have critically seen from the study that there is a need to maintain constant and clear check on the explored factors giving first priority to those factors significantly increasing fiscal deficits. These factors have been revealed to impact negatively on the fiscal performance in Kenya which is likely to lead to a problem of fiscal instability. Therefore the government should intervene through refocusing on the existing fiscal policies to mitigate the anticipated future problems likely to be associated with the existence of unchecked behaviors of these significant factors as a result.

However, it should be noted that the economic and financial crisis experienced especially by emerging economies may have contributed to the behavior of the specific factors hence the rise of fiscal deficits. This may impact the rebirth and joint formation of East African Community as the state may be overburdened with public debt and thus rendering its candidacy at ransom.

Recommendations

Therefore, the study suggests to the government and the relevant agencies to consider adjust Treasury bill rates downwards to increase fiscal balance. As well, the government should be able to encourage

internal investment by the local and encourage internal borrowing at affordable interest rates. Also from the findings, the study recommends the government to utilize the theory of tax smoothing that is fair although might appear to be a negative move by its citizens. A reduction experienced or revealed by this study as a result of tax effort for the last two years implies that there is a reduction of revenues obtained from external sources and consequent increase of expenditure from internal sources like loans. Thus, the government is expected to encourage investment amongst the local citizens living abroad and constant remittances back home to boost capital development which will generate extra revenue. Note that high income due to tax, high inflation rates and large budget expenditures leads to reduction of fiscal balance.

Further, the findings established a negative influence of the last two years of the broad money on fiscal performance considering that the level of development might contribute to the changes in money supply. This may lead to the effects on asset prices which may impact fiscal performance by raising it through increase in tax which earlier in this study we realized that it not significant in granger causing fiscal balance as well depending on how expenditures are done. In addition, a more developed financial sector is likely to provide improved access by the government to debt hence reducing the fiscal performance. This implies that the government should re-evaluate the financial industry or sector by introducing conditions which controls lending and consequently utilize available monetary policies to keep money supply on control. Finally, the Gross government investment reduces fiscal balance through the last one year need be considered by the government. This implies that resources available in the current account for the previous year were heavily borrowed for public investment to enable regeneration of extra revenue which will consequently lead to increase in fiscal performance.

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