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Determinants of Inflation in Kenya 1970 -2006

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Abstract:
This paper investigates the relationship between inflation and exports, imports, money stock and exchange rates in Kenya from 1970-2006 using regression analysis. Time series data was used for the study. Data was sourced from the World Bank and the Central Bank of Kenya. The results show that in the long run exports, imports, money stock and exchange rates were significant in determining inflation. In the short-run, imports and exchange rates were found to have positive significant impact on inflation while exports and money stock had negative impact. The speed of adjustment was 38 percent. On the basis of the results, it is recommended that policies to reduce imports, government deficits and subsidize agricultural inputs be implemented. Interest rates should be set to a level that will encourage investments and increase production levels. Exchange rate system should be maintained at a level that will not impose a threat on the Kenyan economy and efforts should be doubled in oil exploration to reduce import costs.

***Keywords**: Inflation, determinants, exchange rates, monetary approach*

1. Introduction

Kenya has experienced strong economic growth for over a decade, (AfDB, 2011). However, inflation which was thought to be under control has consistently become a major challenge, (AfDB, 2011). High and volatile inflation has posed a threat to the good economic performance and has negatively affected the majority poor by eroding their purchasing power (Duravel et al., 2010). The rise of inflation in Kenya is not an isolated event. Studies have pointed out that many other African countries are facing the same problem (AfDB, 2011). Despite this fact, there is no consensus on the causes of the rise in inflation. A common view is that expansionary monetary policy, primarily due to large government expenditures, is the main cause, possibly in combination with negative domestic food supply shocks, (AfDB 2011; IMF, 2008b; 2012a). Another view is that world food prices increase domestic food prices (Abbot, and de Battisti, 2011; Durevall et al., 2010). According to this school of thought, rising food prices have led to the Kenya Shilling devaluation and thus leading to feedback effects on consumer prices in general.

According to Slavov (2011), inflation is also related to the choice of foreign exchange regimes. In principle, floating exchange rates makes it possible for the authorities to choose an inflation target independent of the rest of the world as well as to isolate or dampen foreign price shocks. A fixed exchange rate, on the other hand, can only work if domestic monetary policy is consistent with inflation rates in the country's trading partners. A fixed regime will thus make the country more exposed to foreign price shocks. Kenya has also had a much more flexible regime close to a floating exchange rate (Slavov, 2011).

The relatively high rates of inflation in Kenya consequently raise questions about monetary authorities' control over inflation. The first step in controlling inflation is to economically identify its main drivers. This study provides an assessment of the determinants of inflation in Kenya by developing a single-equation error correction model (ECM). Annual changes in inflation from 1970-2006 are used for the analysis. The study computes Error Correction Term (ECT) to capture the speed of adjustment from the short run to the long run. Domestic agricultural supply shocks are captured in the error term (Ndung'u 1999).

Ayaya (2017) in his on effects of public debt on foreign direct investment inflows in Kenya found no linkage between FDI and inflation rates. His study used inflation rate as one of the four independent variables. The results of regression analysis revealed that prevailing inflation rates had no significant effect on foreign direct investment inflows in Kenya. This finding was in support of an earlier research conducted by Wanjiru (2013) which found no significant effect between inflation volatility and foreign direct investment.

An indicator of inflation in Kenya is the Kenya consumer price index. This is a key macro-economic variable used to monitor price movements and how they affect policy decisions. It is defined as the measure of weighted aggregate change in retail prices paid by consumers for a given basket of goods and services. Price changes are measured by re-pricing the same basket of goods and services at regular intervals and comparing aggregate costs with the costs of the same baskets in a selected base period. Kenya Consumer price index is the weighted average of the indices for lower, middle- and upper-income groups, Kenya National Bureau of Statistics (KNBS. 2010).

Inflation has a negative impact on the Kenyan economy as it causes a fall in consumer demand. Persistent and prolonged periods of inflation do result in redistribution of income and wealth in favour of the already rich and more affluent classes of the society. The shift in money income from the poor (with a high propensity to consume) to the rich (with a low propensity to consume) adversely affects overall consumer demand (Swamy, 1994). The reduced real income automatically affects consumer goods industries and connected capital goods industries and this results in an economic slump. Further, high inflation forces consumers to channel a significant fraction of their income into basic items like food, transport and rent leaving luxury good such as beer, mobile phone airtime and vehicle running out of their purchasing choices. High inflation also leads to reduced corporate sales, lower tax revenue to the government and eventually lower economic growth (Swamy, 1994).

According to Ndung'u and Ngungi (1999) in the 1970s inflation averaged 4 percent but when the first oil price shocks and balance of payments problems began, the rate of inflation increased to 7.5 percent (See, Fig.1.1). The increase was accompanied by devaluation and changes of the exchange rate peg from the Sterling pound to the US$ (United States dollar) and then to the Special Drawing Right (SDR). The Kenyan economy also experienced expansion of fiscal and monetary policies along with accompanying balance of payments crisis in the mid-1970s.

The determinants and economic impact of inflation are discussed widely in the literature Ndung'u and Ngungi (1999) Some of the most often cited factors influencing inflation are to do with the exchange rate regime, or are monetary in nature and highlight the importance of the money supply and the policies to control money supply growth Akinboade *et al*, 2004). Other models emphasize structural factors, such as market imperfections and cost pressures (including those of import prices), yet others focus on demand pressures (these include the cost of government services and expenditures, the amount of revenue collected, debt and debt servicing, (Akinboade *et al*, 2004).

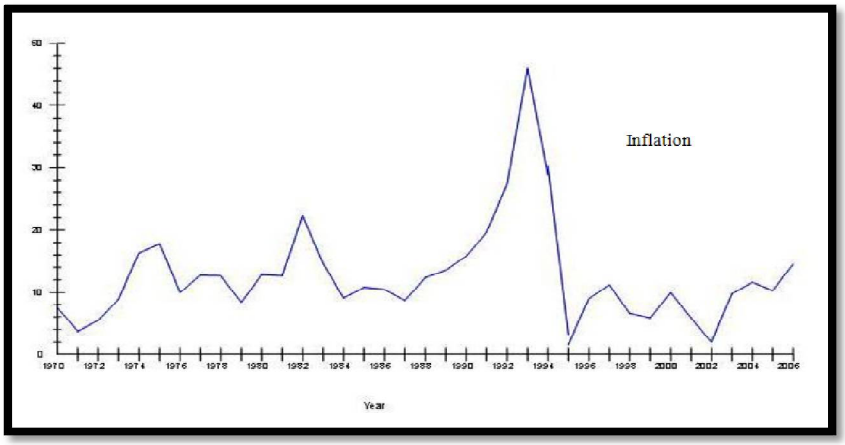

Figure 1: Inflation Trend 1970 -2006
Source Authors computation

2. Modeling Strategy

According to Greene (1989) the simplest approach to price determination in an open economy is that of purchasing power parity (PPP). Absolute purchasing power parity (APPP) implies that price levels in different countries move towards equality in common currency terms. This approach stems from the law of one price, which states that any commodity in a unified market has a single price. In the absence of transport and other costs, arbitrage will ensure that the same price prevail in two countries for any commodity that can be traded between them. Therefore, if the foreign (world) market price for a commodity is denoted as p, and the exchange rate between the domestic currency and the foreign currency as E, then the domestic price (P^{ω}) for that commodity will be captured by the following expression:

$$p = E.p^{\omega} \quad \text{..... (1)}$$

Where p^{ω} denotes the domestic price, the PPP theory is an extension of this law, from one commodity to a basket of commodities that determines the average price level in a given country.

Equation 1 suggests that inflation results either directly from import prices or indirectly through increased demand for domestic goods, the prices of which will increase with the increased domestic prices for imports until equilibrium is restored.

However, the PPP approach has been criticized for excessive simplicity and its incorporation of a number of unrealistic assumptions such as the absence of natural barriers to trade a. (Sachs and Larrain, 1993, Atta *et al*., 1996, 1999).

A less restrictive version of the APPP theory is the relative PPP theory, which implies that even when there are barriers to trade, as long as these barriers are stable over time, the percentage change in the nominal spot exchange rate between two currencies should equal the inflation differential between the respective countries (Akinboade *et al*, 2004). This can be represented as follows:

$$(\Delta p / p_{-1}) = \Delta((E.P^{\omega})/(E.p^{\omega})_{-1}) \quad \text{.....(2)}$$

This can be written as

$$(\Delta p / p_{-1}) - (\Delta E / E_{1}) = (\Delta p^{\omega} / p^{\omega}{}_{-1}) \quad \ldots\ldots(3)$$

In other words, domestic inflation is equal to the sum of currency depreciation and the rate of foreign inflation. Put differently,

$$(\Delta p / p_{-1}) - (\Delta p^{\omega} / p^{\omega}{}_{-1}) = (\Delta E / E_{1}) \quad \ldots\ldots(4)$$

That is, the percentage change in the nominal spot exchange rate between two currencies should equal the inflation differential between the respective countries.

The evidence on the validity of the PPP theory for less developed countries (LDC_s) is mixed (McNown and Wallace1989; Frenkel, 1978, 1981 and Mahdavi and Zhou, 1994). The PPP tends to perform better for countries that are geographically close to each other and where trade links are strong. It also appears to work well for high inflation countries such as many in Latin America that have witnessed rapid exchange rate depreciations.

According to the Monetarist, inflation is a domestic monetary phenomenon that comes about when the Central Bank increases the money supply in excess of the demand for money. This overly large increase in the money supply can be caused by the monetary financing of fiscal deficits or by extending too much credit to the private sector. Monetarists see the short-term solution to inflation as the implementation of the contractionary or restrictive monetary policy.

The monetarists approach to modeling the determinants of inflation can be explained with the aid of the IS-LM model. Starting from equilibrium at potential national income, government can create temporary or sustained demand inflation by temporary or sustained bouts of excessive monetary expansion. Also, increases in demand owing to an investment boom and bond-financed expansionary fiscal policy could raise prices substantially. The modern literature on inflationary financing of budget deficits builds on the works of (Cagan, 1956 and Bailey 1956). Recent contributions include the model by (Dornbusch and Reynoso 1993) and a review of the literature by (Dornbusch and Fischer 1993).

It is asserted that the money supply is exogenous and under the control of the authorities. In simple terms, the Monetarists model of the determinants of inflation can be expressed as follows (Harberger 1963).

$$p = k + m - \beta Y + \delta C \quad \ldots\ldots(5)$$

Where M is the supply of money, Y is the real income, and C the opportunity cost of holding money (all the variables being expressed as the rate of growth or changes). Changes in velocity are captured by the constant term k.

Equation 5 is based on Harberger (1963) Model of inflation in Chile and has been popular in the empirical literature. It is derived from the money demand function and is based on the hypotheses that inflation will vary positively with the rate of change of the money supply and negatively with the rate of change of real income, ceteris paribus. It is not uncommon for monetarist models of inflation to be amended to incorporate the effects of a lagged adjustment process. The rate of interest i could be used in models focused on developed countries as a measure of the cost of holding money c, but it is widely accepted that this measure might be inappropriate in developing countries with highly underdeveloped financial markets. As such, it is argued that changes in past inflation rates should be used as a measure of holding cash. If these are incorporated into the previous equations, the monetarist model becomes, (Harberger, 1963).

$$p_t = \alpha_o + \alpha_1 M_{t-1} + \alpha_2 M_{t-1} + \alpha_3 Y_t + \alpha_4 (\Delta P_{t-1}) / P_{t-1}) \quad \ldots\ldots(6)$$

Where, $(\Delta P_{t-1} / P_{t-1})$ is the rate of inflation in the previous period.

In practice, inflationary financing of budget deficits and exchange rate depreciation may interact to produce a currency devaluation-inflation spiral. (Rodriquez, 1978, Agenor and Montiel, 1996) showed how efforts by the Central Bank to finance fiscal deficits by means of money creation could raise prices and erode foreign reserves. This led to devaluation if the central bank had limited borrowing in the international capital markets, thus initiating a devaluation inflation spiral.

Adherents of the orthodox view acknowledged the existence of structural bottlenecks in developing countries, but reject the structuralist view that such rigidities were the key causes of inflation. Structuralists distinguished between basic (or structural) inflationary pressures and mechanisms that transmitted or propagated such pressures (see Kirkpatrick and Nixson, 1987: 179-177). Key structural bottlenecks identified in structuralists analysis included distorting government policies, the conflict between capitalists and workers over the distribution of incomes between profits and real wages (Agenor and Montiel, 1996:298-9), the inelastic supply of foodstuffs, the foreign exchange constraints and the government budget constraint. In this view, the bottlenecks led to price increases, which were converted into a process of inflation by distributional struggles. The mechanism that propagated inflation was therefore the efforts by social classes and/or sectors to maintain their relative positions in the face of price increases (Kirkpatrick and Nixson, 1987:177). One of the best-known structuralist models of inflation was developed by Cardoso, (1981).

Increase in the money supply so that price increase that started in one part of the economy spilled over to the rest of the economy. The central bank was thus unable to implement an independent monetary policy. For the post-Keynesian theorists, wage and price controls would help reduce inflation.

Fundamental omissions from the monetarist models were structural or cost-push elements that caused inflation. The monetarists explained cost increases in terms of changes in the money supply, especially if the monetary authorities adopted an accommodation policy that sought to prevent real output from falling. Cost-push inflation, which was absent in monetarist models, was a potentially serious problem in many small developing countries, where increases in foreign prices could be an important cause of domestic inflation (Akinboade *et al.*, 2004).

In recent years, several authors have developed models with monetarist and structuralist features by directly augmenting the monetarist approach with cost push factors. Some of the approaches had been to model the fiscal deficits as the original force and the propagating mechanism in the inflationary process (Aghevli and Khan, 1978), to introduce structuralist considerations into monetarist models (Chibber 1972; Jha, 1994:224 -227) and to account for money supply dynamics in structuralist models (Agenor and Montiel, 1996: 311-314).

Saini (1982) sought to decompose inflation into those features dependent on domestic developments and those dependent on external factors in South Africa and the author included the growth rate of import prices (Pm) into the monetarist model to obtain a hybrid model specified as follows: -

$$p_t = \alpha_o + \alpha_1 M_t + \alpha_2 M_{t-1} + \alpha_3 M_{t-2} + \alpha_4 Y_t + \alpha_5 P_{t-1} + \alpha_6 \Delta Pm_t \ldots\ldots\ldots\ldots (7)$$

This study modified Saini's (1982) model with the inclusion of Exports and Exchange rates as follows:

$$p_t = \alpha_o + \alpha_1 \operatorname{Im} P_{t-1} + \alpha_2 ExP'_{t-1} + \alpha_3 Ms_{t-1} + \alpha_4 Ex_{t-1} + e_t \ldots\ldots\ldots\ldots (8)$$

Other studies followed a similar modelling approach (Koskei *et al*., 2013). The transmission from monetary stance through aggregate demand to headline inflation was principally through core inflation.

3. Data

Since this study sought to explain the causal relationship between inflation and its determinants in Kenyan economy a regression model was used. Secondary data with annual time series of the dependent and independent variables was used. The time series data used in this study consists of 36 observations, four independent variables and one dependent variable (Shihuma, 2013).

The data set covered the Kenyan economy from the year 1970 to 2006. Data was obtained from the World Bank, Africa Development indicators (World Bank, 2007) and central bank of Kenya. Measures were taken to ensure that consistency in the data set was achieved across the 36-year period (Lim and Papi 1977).

4. Empirical Results and Discussion

Descriptive statistic results are presented in Table 1. The mean, standard deviations and skewness of the data suggests that the data has a normal distribution.

4.1. Summary Descriptive Statistics for the Data

VARIABLE(S)	INFL	EXP	IMP	MS	EX
Maximum	97.8	132	163.6	90.92	78.6
Minimum	10	36	29.4	35	6.6
Mean	2.018	3.658	2.272	3.088	1.514
Std. Deviation	1.7258	1.1280	1.6908	1.3991	2.2630
Skewness	0.4792	-0.31604	0.6290	-0.8470	0.2065
Kurtosis - 3	1.9235	1.2020	1.5022	1.2113	1.5223
Normality	2.1210	1.7499	1.4379	1.9065	2.0123
Probability	0 .3574	0.4905	0.3073	0.3970	0.3788
Observations	36	3 6	36	3 6	36

Table 1: Indicates The Normal Distribution of the Residuals. Variables Are Defined as Follows
Source: Authors Computation
INFL=Consumer Prices, EXP=Exports, IMP=Imports MS=Money Supply, EX=Exchange Rates

The normality test (Jacque-Bera normality test) of variables was carried out and the results in Table 1 show that all variables are normally distributed since their Jacque- Bera probabilities are insignificant at 5% level (Albright *et al* 2006). The abbreviated names of the variables are explained in Table 1. The data are in millions of Kenya shillings.

Trends in the data can lead to spurious correlation and this implies a relationship between the variables in a regression equation, when in actual sense none exists (Gujarati 2004). Thus, the time series data considered in this study was based on the fundamental assumption that required the series to be stationary in order to yield reliable results of the relationship between the variables. The time series data in the study was trended and independent variables lagged once to remove auto-correlation. The LM test in Table 2 revealed that there was no autocorrelation since the LM test statistic of 0.163 and a probability of (0.686) were not significant, (Gujarati 2004). Table 2

Variable		Coefficient	Std. Error	T-Ratio	P- value	F-statistics
Dependent Inflation	Independent Imports Money Supply Exchange Rates	0.078	0.215	0.364	0.718	1,25=0.132(0.71)

Table 2: DF Test for Serial Correlation (OLS Case)
Source: Authors computation

Whereas the visual examination of graphs can be useful more formal tests of the time series properties of variables are essential. The following testing strategy was employed in order to determine the order of integration or stationarity using the Augmented Dickey Fuller (ADF) unit root test (Likukela, 2007).

Unit root test conducted by the use of Augmented Dick Fuller test reveals that all lagged variables are stationary, Table 4.3. The observed DF test statistic is (-4.9484). This test statistic is more negative than the tabulated DF critical value (-4.8967). The implication is that there is no unit root.

According to Dlamini and Nxumalo (2001), the existence of cointegration among the variables implies that an Error Correction Model (ECM) can be estimated. The ECM approach used in this study is useful for the formulation of a short-term price adjustment model. This therefore draws upon the Error Correction Formulation, which is the counterpart of every Long run cointegrating relationship. In this study, therefore cointegration results in Table 3 show that all the variables are stationary at 1(0). This is because all the DF critical values are greater than the DF test statistic values. This therefore confirms the presence of cointegration between respective variables (Granger and Engle 1987).

Variable	No. Of Lags	DF Critical Values	Order of Integration	DF test Statistic
Inflation	1lag	-2.815	1(0)	-3.446
Export	1Lag	-2.276	1(0)	-3.646
Import	1Lag	-3.193	1(0)	-3.746
Money Supply	1Lag	-1.573	1(0)	-3.542
Exchange rates	1Lag	-2.426	1(0)	-3.561

Table 3: Cointegration Test for variables
Source Authors computation

Therefore, having established that inflation is cointegrated (long-run relationship) with its determinants in Table 4. This study proceeds to estimate equation 2 for long run elasticities using the Ordinary Least Squares (OLS) model. Time series data from 1970-2006 periods were used to estimate the log linear model. Since time series data were used, the 'DW' Durbin Watson test was used to test the presence of serial correlation. Efficient and consistent estimates were obtained by the use of (OLS) (Granger and Eagle, 1987).

The results shown in Table 4 are for the long run relationship between the variables. They indicate that all the estimated variables have their apriori expected signs. Exports (-0.109), Imports (0.864), Money Supply (0.155) and Exchange rates (-0.355). However, the following variables Export (-0.109), Import (0.864), Exchange rates (-0.355) were highly significant with probabilities (0.002), (0.000) and (0.004) respectfully. Money supply was insignificant with probability of (0.039).

Dependent Variable is inflation				
Repressor	Coefficient	Standard Error	T-Ratio	P-Value
Constant	0.454	0.709	2.640	0.007
lnExport(-1)	-0.109	0.031	-3.436	0.002
lnImport(-1)	0.864	0.147	5.853	0.000
lnMoney Supply(-1)	0.155	0.071	2.174	0.039
lnExchange Rate(-1)	-0.355	0.113	3.122	0.004
R-Squared 0.71 S.E of Regression 0.137 F-Stat (4,26)= 16.22[0.000] S.D of Dependent Variable 0.238 Residual sum of squares 0.488 Equitation log- likelihood 20.348			R- Bar Squared 0.67 Akaike Information Criterion 15.343 Schwarz Bayesian Criterion 11.758 DW- Statistic 1.833	

Table 4: Long Run Estimation
Source: Authors computation

The elasticity estimates indicates that in the long run, domestic inflation in Kenya is influenced by Export, Import and Exchange rates indexes with coefficients of (-0.109), (0.864),(-0.355) respectively. A 1% increase of aggregate inflation was caused by a decrease of (-0.109) and (-0.355) in exports and exchange rates devaluation and an increase of 0.864 in imports respectively. A comparison of different variables reveals that imports had the highest elasticity coefficient (0.864) while exchange rates had the lowest elasticity coefficient (-0.355).

$\overline{R^2}$ Statistic measures the "goodness of fit" of the equation. It is satisfactory at 67%, indicating that in the long run 67% of the variations in Kenya's domestic inflation rate are explained by variations in the changes in exports, imports, money stock and exchange rates. The F-statistics of 16.22 with P-value of 0.00 indicates that all the four variables jointly determined inflation in Kenya. The reported DW statistic of 1.8 signifies absence of autocorrelation in the long run

regression (Granger and Eagle 1987). Table 4 provides results of long- run estimation. Results of Error Correction Model are presented in Table 5.

Regressor	Coefficient	Standard Error	T-Ratio	P- value
ΔlnConstant	0.009	0.009	3.007	0.010
ΔlnExport	-0.035	0.024	-1.43	0.163
ΔlnImport	0.519	0.092	5.627	0.000
ΔlnMoney Supply	0.030	0.057	0.533	0.599
ΔlnExchange Rate	-0.105	0.095	1.108	2.78
ΔECT	-0.383	0.079	-4.825	0.000
ΔlnConstant =C-C(-1) ΔlnExport =lnexport-lnexport(-1) ΔlnImport = lnimport – lnimport (-1) ΔlnMoney Supply= lnMoney Supply- lnMoney Supply(-1) ΔlnExchange Rate= lnExchange Rate- lnExchange Rate(-1)				
R-Squared 0.642 S.E Regression 0.0791 Mean Dependent Variable 0.022 Residual sum of Squares 0.156 AIC 31.96	R- Bar Squared 0.571 SBC 27.66 DW-statistic 2.023 F-Statistic (5,25) 9.00(0.00) S.D of Dependent Variable 0.120		Equation Log likelihood 37.963	

Table 5: Results Error Correction
Source: Authors computation

Where all the variables are in first difference $\Delta.Pt$ represents Inflation. lnExp, represents Exports, lnImp represents Imports, ln Ms represents Money Stock, lnEx represents Exchange Rates, μ represents Error Correction Term all in the previous period ($t-1$). *ln* before all the variables represents logarithms.

In the short run, estimates of domestic inflation are reported in Table 5 above. The results show that responsiveness of imports to inflation in the short run was low (0.51) compared to that of the long run (0.86). The coefficients had a positive sign and were significant. The interpretation of the results is that as imports of goods and services rose by 1 percent, domestic inflation would increase by 0.51 on average.

Exports had a coefficient of (-0.35) and significant compared to (-0.10) in the long run. Money Supply had a Coefficient of (0.30) and insignificant compared to (0.15) in the long run. Exchange rates had coefficient of (-0.10) and insignificant compared to -0.35 in the long run.

The Error Correction Term (ECT) μ_{t-1} had a negative sign as expected (-0.38). It indicates that the speed of adjustment reflected a 38 percent feedback from the previous year's disequilibrium into the short run dynamics process (Dlamini and Nxumalo 2001). The negative sign of speed of adjustment term shows that the economy would converge towards long run equilibrium after taking 38 percent annual adjustments in the short run. The Probability of the Coefficient is statistically significant at -4.8 with t-ratio of (0.00), Table 5.

The estimated coefficient of -0.38 percent means the adjustment to equilibrium took place slowly (Bannerjee *et al*., 1998).

The initial estimation was carried out with one lag on each variable. This was due to the small number of observations (Dlamini and Nxumalo 2001).

The R- bar squared which measures the "Goodness of fit" of the equation was satisfactory at 0.57, indicating that 57 percent of the variations in Kenya's inflation rate in the short run are explained by exports, imports, money stock and exchange rates. Further, the F-test statistic of 9.00 with P-value of (0.00) indicates that all the four variables jointly determine domestic inflation in Kenya.

The ECM results are produced in Table 5. The first column shows names of variables, the second column Coefficients, third column Standard errors and fourth column T-Ratios and their Probabilities relationships. The short run clearly fits the situation in Kenya. This is true since the Kenyan economy depends on imports to make up for the short fall in local production. Low exports in Kenya are as a result of Kenya's poor weather conditions and lack of adequate investments in manufacturing industries.

As observed by Oskoee (2001), the stability of the regression coefficient is evaluated by stability tests. The stability test is used to determine whether or not the regression equation is stable over time. Stability tests are appropriate in time series data especially if one is uncertain when changes might take place. Cumulative CUSUM and the Cumulative Sum of Squares CUSUMQ statistics are plotted against critical bound of 5% significance level. As noted by Oskooee (2002) if the plot of these statistics remain within the critical bound of 5% significance level, the null hypotheses, which states that all coefficients in the Error Correction Model are stable, cannot be rejected.

5. Conclusions and Policy Implication

The results indicate that in the long-run, exports, imports and exchange rates, significantly contributed to inflation in Kenya. Deterioration of the Kenya shillings against the United States Dollar is likely to have caused devaluation which in

turn pushed up domestic prices. Further, increase in imports seems to have pushed up domestic prices. In the short-run however imports seem to have significantly contributed to increased domestic inflation. The slow rate of disequilibrium adjustment of 38 percent back to equilibrium may be as a result of the import bill effect on consumer goods and services.

From the results, the study suggests policies aimed at reducing imports and increasing export of domestic goods and services so as to reduce government deficits and improve exchange rates. The government should also subsidize agricultural inputs to make them affordable by farmers so as to boost agricultural production which will bring down the price of food grains. A deterioration of terms of trade on the other hand is likely to have its strongest effect via the devaluation of the Kenya shilling which in turn pushes up prices. This is caused by Kenya's exports which consist mainly of agricultural unprocessed produce that fetch low prices abroad. Kenya should therefore invest heavily in the manufacturing sector so as to improve her terms of trade and improve her budget deficit.

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