INFLATION ON HOUSEHOLDS EXPENDITURE IN
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A SITUATIONAL ANALYSIS

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ABSTRACT

Purpose: Inflation is a concern in both developed and developing countries as it leads to a fall in profit margins and makes it difficult in drawing households' budgets. The Medium Term Plan report (2008-2012) indicates that Mbita Division of Homa-Bay County has had the effects of inflation in recent times as many fish industries are closing down, an indicator of a fall in private domestic capital and also an increase in the unemployment rate. The purpose of this study was to determine the effect of inflation on the household expenditures in Mbita Division, Kenya.

Methodology: The study adopted exploratory and correlation research designs. Exploratory research design gave an insight into the households' expenditure behavior while correlation research design facilitated the establishment of relationships among the research variables. A sample size of 374 heads of households was selected from a total of 13,789 households in the Division. The individual respondents were drawn by the use of a simple random sampling technique. Primary data was gathered with the help of questionnaires, key informant interviews, focused group discussions, and observation, and Secondary data were collected from Government statistical abstracts, household records, and relevant textbooks. Regression as a tool of analysis was utilized to reveal the existing relationship among the variables and coefficient of determination to show the strength of the established model. The reliability of the data collection instrument was tested using the internal consistency technique in which the scores obtained from the subjects were correlated and the Cronbach's Coefficient Alpha was be computed to determine the correlation among the items.

Findings: It was discovered that 135(38%) spent more than Ksh 4000 per month six months ago compared to 159(44.8%) of the total respondents who spent more than the same amount currently in Mbita division.

Recommendation: It was recommended that the households in Mbita division should spend only on the basic stuff and be advised on the micro-savings programs to assist in times of high inflation rates.

Keywords: *Inflation, Household, Expenditure, Consumption, Consumer Price Index, Inflation Rate*

1.0 INTRODUCTION

1.1 Background of the study

Inflation is a concern to both developed and developing countries as leads to a fall in the profit margins of many companies. It has also plunged countries into long periods of instability. Central bankers often aspire to be known as "inflation hawks." Politicians have won elections with promises to combat inflation, only to lose power after failing to do so. Inflation was even declared Public Enemy No. 1 in the United States by President Gerald Ford in 1974. Many countries have grappled with high inflation and in some cases hyperinflation, 1,000 percent, or higher inflation a year (Hanke, 2008). In 2008, Zimbabwe experienced one of the worst cases of hyperinflation ever, with estimated annual inflation at one point of 500 billion percent. Such high levels of inflation have been disastrous, and countries have had to take difficult and painful policy measures to bring inflation back to reasonable levels, sometimes by giving up their national currency, as Zimbabwe had (Hanke, 2008).

The inflation rate in Kenya in 2000 was 11.8 and it rose to 11.8 in 2011(World Economic Outlook, April 2012). Kenya was not only hit by the commodity-price hike and the financial crisis, but also post-election violence in 2008. As a result, real GDP growth dropped from over 7% in 2007 to below 1.5% in 2008 while inflation increased to over 30%. The monetary policy response was to reduce interest rates to stimulate economic growth. Despite the lax monetary policy, inflation declined from 2009 until late 2010; a decline that could also be observed in Ethiopia. Inflation then rose again, but the authorities continued to maintain loose monetary conditions. This resulted in the rapid depreciation of the Kenyan shilling (KES); its value dropped from about 80 shillings per US dollar in early 2011 to over 100 shillings per US dollar in October 2011. To prevent further deprecation of KES and a rise in inflation, the monetary authorities increased the central bank rate sharply, pushing up the interbank rate to about 17%, from less than 2% in January 2011. The response seems to have been an appreciation of the KES and a decline in inflation. The tight monetary policy stance was maintained during the first half of 2012 (World Economic Outlook Database, April 2012)

Inflation is commonly measured by a Laspeyres-type Consumer Price Index (CPI) (Astin 1999). It might have different effects on households with different consumption structure for two main reasons. First, there are differences in the basket of goods and services consumed. In turn, those differences may consist of (i) a different composition of consumption at a certain level of classification and (ii) different specific items bought by various types of households within any given category. To exemplify, households in the upper tail of the per capita equivalent consumption expenditure distribution will devote a lower fraction of their expenses to basic goods – such as food – concerning households in the lower tail of the distribution. Moreover, the specific goods and services bought by high-consumption households within a certain, even highly detailed, the category would generally differ from the ones bought by low-consumption households.

Second, the prices at which various types of households buy the very same products may differ, largely as the consequence of the different stores where purchases take place. The identification and estimation of the impact of all these factors on the dynamics of a fixed-basket expenditure of households with different consumption structures are, patently, problematic. It would require fresh data collected using ad hoc surveys (Istat, 2003). Inflation not only affects the macroeconomic indicators, it affects the living standards of the people. As the percentage of inflation increases, the cost of all commodities also increases. However, the same is not true for salaries or wages. It results in a mismatch of income and expenses. As a result, people are immensely impacted by these changes. The exchange rates of all currencies also change. This in turn influences trade. When exchange rates are affected, the interest rates cannot be far behind.

Mainstream economists' views can be broadly divided into two camps: the "monetarists" who believe that monetary effects dominate all others in setting the rate of inflation, and the "Keynesians" who believe that the interaction of money, interest, and output dominate over other effects. Other theories, such as those of the Austrian school of economics, believe that inflation of overall prices is a result of an increase in the supply of money by central banking.

Inflation's effects on an economy are various and can be simultaneously positive and negative. Negative effects of inflation include an increase in the opportunity cost of holding money, uncertainty over future inflation which may discourage investment and savings, and if inflation is rapid enough, shortages of goods as consumers begin hoarding out of concern that prices will increase in the future. Positive effects include ensuring that central banks can adjust real interest rates (intended to mitigate recessions) (Gregory, 2002).

Economists generally agree that high rates of inflation are caused by excessive growth of the money supply (Grilli, 1994). Views on which factors determine low to moderate rates of inflation are more varied. Low or moderate inflation may be attributed to fluctuations in real demand for goods and services, or changes in available supplies such as during scarcities, as well as to growth in the money supply. However, the consensus view is that a long sustained period of inflation is caused by money supply growing faster than the rate of economic growth (Bernanke, 2005).

Today, most economists favor a low and steady rate of inflation (Rogers, 2007). Low (as opposed to zero or negative) inflation reduces the severity of economic recessions by enabling the labor market to adjust more quickly in a downturn and reduces the risk that a liquidity trap prevents monetary policy from stabilizing the economy. Escaping from a Liquidity Trap and Deflation: "The Foolproof Way and Others" (Svensson, 2003). The task of keeping the rate of inflation low and stable is usually given to monetary authorities.

1.2 Problem of the Statement

Inflation is a concern in Kenya and has led to a fall in many company's profit margins and household purchasing patterns. High inflation discourages saving and investments, a decrease in purchasing power of the currency, and the value of a shilling, a value of money can only purchase a few goods and services.

Kenya National Bureau of Statistics report for July 2011 indicates that the Consumer Price Index increased by 1.27 percent from 120.91 percent in June to 122.44 percent in July. The overall inflation rate has risen by 10.11 percent in seven months hitting 15.53 percent in July 2011 up from 5.42 in January 2011. The inflation rate stood at 14.49 percent in June 2011. The upward trend is attributed to increases in production costs of household products. Despite the measures and strategies which have been put in place by the Government of Kenya and other financial institutions to control inflation, Mbita Division of Homa Bay County has continued to deeply feel the effects of inflation as many fish Industries, Micro Business activities, and peasant farming which form the basic economic activities in the division are getting closed (GoK, MTP 2008-2012). Although studies increasingly focus on the effects of inflation, the extent to which it influences household expenditure patterns is not well documented in Kenya. On the account of the foregoing, the study is intended to fill the information gap on the effects of inflation on household expenditure in Mbita division

1.3 Research Objectives

The objective of this study was to determine the effect of inflation on household expenditures in Mbita Division of Homa-Bay County.

1.4 Justification for the Research

Hunger in Kenya continues to rear its head from time to time, the situation is worse in the rural areas where poverty affects more than a third of the population. Despite studies and measures which have been put in place by both the Kenyan Government and other Financial Intuitions to control inflation, the household consumers particularly in Mbita Division of

Homa Bay County has continued to adversely experience the effects of inflation in their day to day expenditure patterns. In the division, most parents are unable to buy uniforms for their children in schools let alone providing three meals a day for their families. Many pupils are going to school barefooted and with torn clothes. Given the mentioned situations, it has become necessary to do another more detailed study on the effects of inflation in this Division, to find out the possible causes and remedies to help the people living in this division and thus improving their living conditions. The research will assist the policymakers in advising the producers and consumers

1.5 Scope of the Study

The study will focus on the effects of inflation on household expenditures of residents of the Mbita Division of Homa Bay County; a sample size of 374 heads of households will be selected from a total of 13 789 households in the Division. The individual respondents will be drawn through a simple random sampling technique. The study will not go beyond the division because of its big size and the huge financial resources besides more time it would require to be completed.

1.6 Conceptual framework

The following conceptual framework depicts the most important variables of the household expenditure expected to be influenced by inflation which is the independent variable and household expenditure dependent variable. Household Partial Payments for products provided by the Government, households' account consumption of outputs produced by unincorporated enterprises owned by households, Household Purchase of Products for their everyday needs, income in kind earned by employees, Households' payments to the general government for licenses, and permits and imputed rents for services. Each of the above components of household expenditure can be analyzed as below.

a) Household Partial Payments for products provided by the Government.

   -Health Services

   -Educational Services

   -Tickets to public museums and pools

b) Households own Account consumption of products produced by unincorporated enterprises owned by households.

   -Own consumption of products produced on the farm eg – Milk

c) Household Purchase of products for their everyday needs.

   -Food
   -Clothing
   -Cars
   -Rents
   -Personal Services

d) Income in kind earned by employees.

   -Free or reduced train tickets for railway employees.

e) Households' payments to the general government for licenses and permits

   -Fees for issuing passports, National Identification Cards, or trade licenses
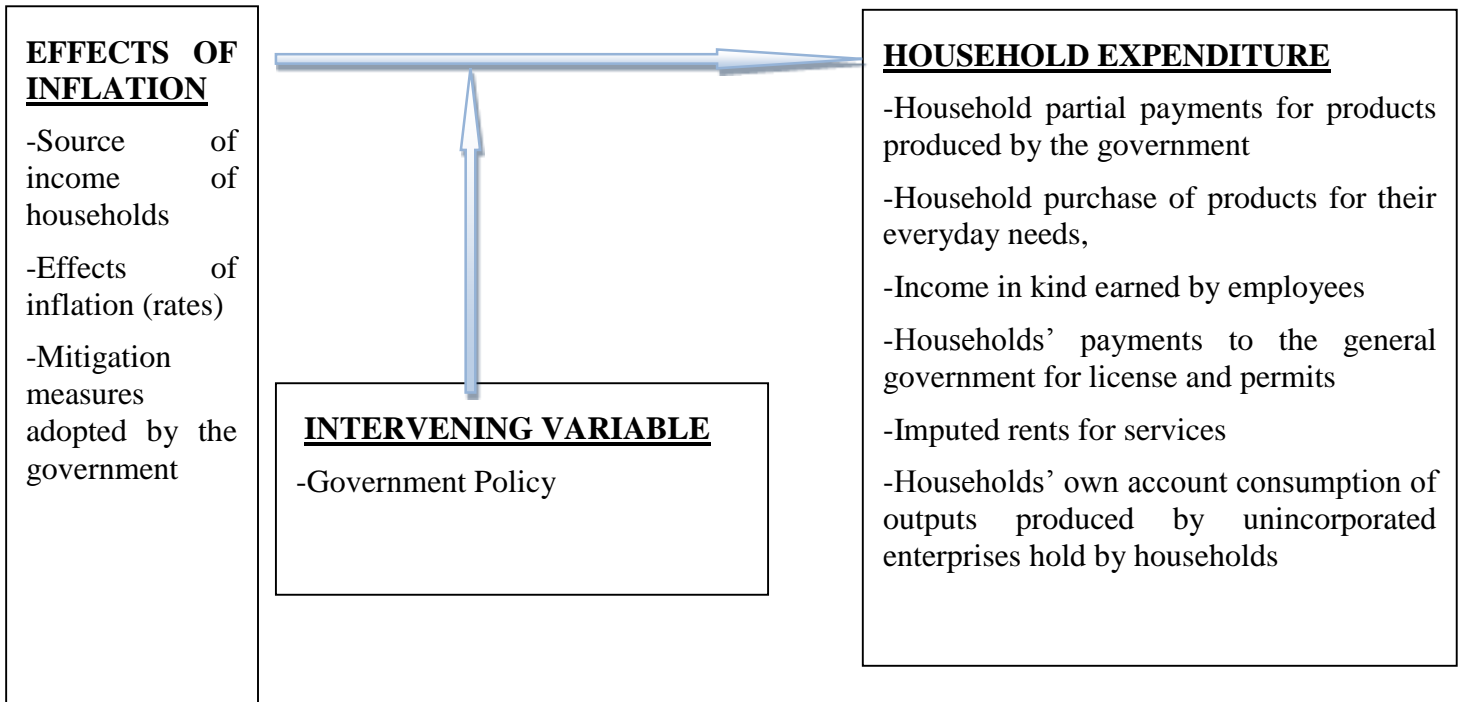
g) Imputed rents for services

   -Owner-occupied housing

In developing the conceptual framework, inflation in studied as an input, and the household expenditure becomes the output. The key intervening variable, in this case, is the Government Policy. In most cases, the government intervenes by setting or controlling the prices and the consumption of some products in the economy.

Conceptual Framework

Independent Variable   Dependent Variable

EFFECTS OF INFLATION -Source of income of households -Effects of inflation (rates) -Mitigation measures adopted by the government	**HOUSEHOLD EXPENDITURE** -Household partial payments for products produced by the government -Household purchase of products for their everyday needs, -Income in kind earned by employees -Households' payments to the general government for license and permits -Imputed rents for services -Households' own account consumption of outputs produced by unincorporated enterprises hold by households

INTERVENING VARIABLE

-Government Policy

Source: Self conceptualization, 2013

2.0 LITERATURE REVIEW

This section presents a review of studies on the quantity theory of money and its effects on the value of money, purchasing power, and household expenditure patterns. Specifically, section 2.1 is devoted to the presentation of the theoretical framework that guides this study. Section 2.2 examines some empirical studies which have been done in and outside Kenya's economy. The deficiency of the previous studies and gaps to be filled in this study are presented in section 2.3.

2.1 Theoretical Literature Review

Money plays an important role in facilitating business transactions in the modern economy. It's a medium of exchange and standard unit in which prices and debts are expressed. It serves four major functions – medium of exchange, store of value, unit of account, and source of differed payment, in general demand for money is a demand for real balances The second-round effects of these on the overall growth and development of the economy is the point where monetary and fiscal policies play their roles. Conceptually, the quantum of money in the economy and its consistency with the absorptive capacity of the economy underpins the essence of monetary

policy. The Central Bank of a country (CBC) is responsible for designing and conducting monetary policy. Over the years, the Central Bank of Nigeria has adopted a wide range of monetary policy frameworks such as exchange rate and monetary targeting frameworks to achieve macroeconomic objectives of price stability, economic growth, and balance of payment viability as well as employment creation in its conduct of monetary policy.

The quantity theory originates from Jean Bodin,. followers of the School of Salamanca, (John Stuart Mill, 1848), and various others who noted the increase in prices following the import of gold and silver, used in the coinage of money, from the New World. This is backdated to around the 16th century. These classical economists concluded that among other factors- Increases in gold and silver which served as currencies were responsible for the rise in the demand for French-made goods and, hence, French prices, thus linking movements in prices to movements in the money stock. By the 1690s, the quantity theory was further advanced by John Locke to examine the effects of money on trade, the role of interest rate, and demand for money in the economy. In particular, the role of money as a medium of exchange to facilitate trade transactions was born. Economists at the time inferred that the quantum of money needed for such transactions would depend on the velocity of money in circulation and the relationship between the demand and supply of money such that where there was excess demand over supply interest rates rose and vice versa (Ajuzie, 2008).

The modern classical economics school of thought, which has come to be known as the monetarists, continues in the same light as the early economists and is often concerned with explanations for changes in the price level. To them, a stable and equilibrating relation exists between the adjustments in the quantity of money and the price level The more orthodox monetarist assumes that a rise in the quantum or variation in money supply determines the value of money, but not necessarily changes in output. In other words, they refute any form of monetary influence on real output both in the short-and long-run. This led to the popular paradigm that, "Inflation is always and everywhere a monetary phenomenon For the less stringent monetarist, they agree that money influences output in the short-run, but only prices in the long-run. Nevertheless, irrespective of the path of adjustment, the monetarist all seem to concur that to reduce or curtail inflationary growth, money growth should be less than or equal to the growth in output.

The quantity theory of money is hinged on the Irvin Fisher equation of exchange that states that the quantum of money multiplied by the velocity of money is equal to the price level multiplied by the number of goods sold. It is often replicated as MV= PQ, M is defined as the quantity of money, V is the velocity of money (the number of times in a year that currency goes around to generate a currency worth of income), P represents the price level and Q is the number of real goods sold (real output). By definition, this equation is true. It becomes a theory based on the assumptions surrounding it. This theory was based on the assumptions;

The first assumption is that the velocity of money is constant. This is because the factors, often technical, habitual, and institutional, that would necessitate a faster movement in the velocity of money evolve slowly. Such factors include population density, mode of payment (weekly,

monthly), availability of credit sources, and nearness of stores to individuals. This assumption presupposes that the velocity of money is somewhat independent of changes in the stock of money or price level. However, the Keynes liquidity preference theory suggests that the speculative components of money demand affect money velocity.

Friedman in his modern theory of the quantity theory of money further explores the variables that could affect the velocity of money to include human/nonhuman wealth, interest rate, and expected inflation.

The second assumption guiding the QTM is that factors affecting real output are exogenous to the quantity theory itself. In other words, monetary factors do not influence developments in the real economy.

The third assumption states that causality runs from money to prices. Thus, the quantity theory of money can be represented as

MV →PQ

In simple terms, this states that prices vary proportionally in response to changes in the quantum of money, with velocity and real output invariant.

The QTM is, however, fraught with some weaknesses. First, is its non-recognition of money as a resource that could spur production? It thus does not explain recessions or unemployment since it assumes away adjustment problems.

Secondly, critics have also observed that changes in the quantum of money circulation are the effects of variation in the business cycle, rather than the cause as proposed by the monetarists

The "equation of exchange" relating the supply of money to the value of money transactions was stated by John Stuart Mill (1848), who expanded on the ideas of David Hume (1978). The quantity theory [was developed by Simon Newcomb(1885) and Irving Fisher(1911)) in the late 19th and early 20th century.

Karl Marx modified it by arguing that the Labor Theory of Value requires that prices, under equilibrium conditions, are determined by socially necessary labor time needed to produce the commodity and that the quantity of money was a function of the number of commodities, the prices of commodities, and the velocity. Marx did not reject the basic concept of the Quantity Theory of Money but rejected the notion that each of the four elements was equal but rather argues that the number of commodities and the price of commodities are the determinative elements and that the volume of money follows from them. He argued that "The law, that the quantity of the circulating medium is determined by the sum of the prices of the commodities circulating, and the average velocity of currency may also be stated as follows: given the sum of the values of commodities, and the average rapidity of their metamorphoses, the quantity of precious metal current as money depends on the value of that precious metal.

The erroneous opinion that it is, on the contrary, prices that are determined by the quantity of the circulating medium, and that the latter depends on the quantity of the precious metals in a country; this opinion was based by those who first held it, on the absurd hypothesis that

commodities are without a price, and money without value, when they first enter into circulation, and that, once in the circulation, an aliquot part of the medley of commodities is exchanged for an aliquot part of the heap of precious metals."

John Maynard Keynes, Marx, accepted the theory in general and wrote. "This Theory is fundamental. Its correspondence with the fact is not open to question."

Marx further believed that the theory was misrepresented. Where Marx argues that the amount of money in circulation is determined by the quantity of goods times the prices of goods Keynes argued the amount of money was determined by the purchasing power or aggregate demand. He wrote "Thus the number of notes which the public ordinarily have on hand is determined by the purchasing power which it suits them to hold or to carry about and by nothing else"

In the Tract on Monetary Reform (1924), Keynes developed his quantity equation: $n = p(k + rk')$, where n is the number of "currency notes or other forms of cash in circulation with the public", p is "the index number of the cost of living", and r is "the proportion of the bank's potential liabilities (k') held in the form of cash." Keynes also assumes ".the public,(k') including the business world, finds it convenient to keep the equivalent of k consumption in cash and a further available k' at their banks against cheques

2.2 Empirical Literature Review

Some of the earlier works conducting empirical testing of the quantity theory of money include those of Friedman and Schwartz (1982), Sims (1972), Bhattacharya (1972), and Brahmananda (1977). Sims (1972) introduced the concept of Granger causality into the testing procedure. In his study, Bhattacharya (1972) specified a linear regression model to examine the relative performance of reduced form versions of the basic Keynesian model and the Quantity Theory model. He concluded that the Keynesian model explains monetized income better than the QTM. Brahmananda (1977) employing single equation econometric methods investigated the link between real national income and price level in India. He concluded that the QTM explains the developments in the price level. Modern research on the QTM such as that of Ahmed (2003) which adopted a block causality test showed that there was a unidirectional causality from output and prices to money. That is, interest rate and money as a block do not cause output and prices, but output and price cause interest rates and money. Miyao (1996) used quarterly data for the period 1959 to 1993 to investigate the long-run relationship between money, price level, output, and interest rates in the United States and found that there was mixed evidence of a long-run relationship before 1990 and little or no evidence of a long-run cointegration relationship for the entire sample. A similar study by Emerson (2006) to examine the long-run relationship between money, prices, output, and interest rates in the United States using quarterly data for the period 1959 to 2004 concluded that a long-run relationship exists.

Few studies such as Anorou (2002) and Nwaobi (2002) examined such a relationship in the Nigerian context. Anoruo (2002) adopted the Johansen and Juselius co-integration method to establish the stability of the broad money demand function in Nigeria during the structural adjustment program period. His result suggests that a long-run relationship existed between M2,

and real discount rate, and economic activity concluding that money was a viable monetary policy instrument to stimulate economic activity in Nigeria. Similar research by Nwaobi (2002) using data from 1960-95, established that money supply, real GDP, inflation, and interest rate were co-integrated in the Nigerian case.

According to modern economists, quantity theory builds upon the following definitional relationship.

$$M \cdot V_T = \sum_i (p_i \cdot q_i) = \mathbf{p}^T \mathbf{q}$$

Where;

M is the total amount of money in circulation on average in an economy during the period, say a year.

V_T is the transactions velocity of money, that is the average frequency across all transactions with which a unit of money is spent.

p_i and q_i are the price and quantity of the i-th transaction.

$\mathbf{P}$ is a column vector of the p_i, and the superscript ^{T} is the transpose operator.

$\mathbf{q}$ is a column vector of the q_i.

Mainstream economics accepts a simplification, the equation of exchange:

$$M \cdot V_T = P_T \cdot T$$

Where;

P_T is the price level associated with transactions for the economy during the period

T is an index of the real value of aggregate transactions.

The previous equation presents the difficulty that the associated data are not available for all transactions. With the development of national income and product accounts, emphasis shifted to national-income or final-product transactions, rather than gross transactions. Economists may therefore work with the form

$$M \cdot V = P \cdot Q$$

Where;

V is the velocity of money in final expenditures.

Q is an index of the real value of final expenditures.

As an example, M might represent currency plus deposits in checking and savings accounts held by the public, Q real output (which equals real expenditure in macroeconomic equilibrium) with

P the corresponding price level, and $P \cdot Q$ the nominal (money) value of output. In one empirical formulation, velocity was taken to be "the ratio of net national product in current prices to the money stock". (Friedman, 1965).

Thus far, the theory is not particularly controversial, as the equation of exchange is an identity. A theory requires that assumptions be made about the causal relationships among the four variables in this one equation. There are debates about the extent to which each of these variables is dependent upon the others. Without further restrictions, the equation does not require that a change in the money supply would change the value of any or all of P, Q, or $P \cdot Q$. For example, a 10% increase in M could be accompanied by a 10% decrease in V, leaving $P \cdot Q$ unchanged. The quantity theory postulates that the primary causal effect is an effect of M on P.

According to Economists like Alfred Marshall, A.C. Pigou, and John Maynard Keynes (before he developed his own, eponymous school of thought) associated with Cambridge University, took a slightly different approach to the quantity theory, focusing on money demand instead of money supply. They argued that a certain portion of the money supply will not be used for transactions; instead, it will be held for the convenience and security of having cash on hand. This portion of cash is commonly represented as k, a portion of nominal income ($P \cdot Y$). The Cambridge economists also thought wealth would play a role, but wealth is often omitted for simplicity. The Cambridge equation is thus:

$$M^d = k \cdot P \cdot Y$$

Assuming that the economy is at equilibrium and pY is exogenous, and k is fixed in the short run, the Cambridge equation is equivalent to the equation of exchange with velocity equal to the inverse of k:

$$M \cdot \frac{1}{k} = P \cdot Y$$

The Cambridge version of the quantity theory led to both Keynes's attack on the quantity theory and the Monetarist revival of the theory.(Friedman ,1987),

According to Milton Friedman, the quantity theory emphasizes the following relationship of the nominal value of expenditures PQ and the price level P to the quantity of money M:

$$(1) PQ = f(\overset{+}{M})$$

$$(2) P = g(\overset{+}{M})$$

The plus signs indicate that a change in the money supply is hypothesized to change nominal expenditures and the price level in the same direction (for other variables held constant).

According to Friedman, the empirically regularity of substantial changes in the quantity of money and in the level of prices as perhaps the most-evidenced economic phenomenon on record. (Friedman, 1987)

The short-run relation of a change in the money supply in the past has been relatively more associated with a change in real output Q than the price level P in (1) but with much variation in the precision, timing, and size of the relation. For the long-run, there has been stronger support for (1) and (2) and no systematic association of Q and M (Friedman, 1987),

The theory above is based on the following hypotheses:

The source of inflation is fundamentally derived from the growth rate of the money supply. The supply of money is exogenous. The demand for money, as reflected in its velocity, is a stable function of nominal income, interest rates, and so forth.

The mechanism for injecting money into the economy is not that important in the long run.

The real interest rate is determined by non-monetary factors: (productivity of capital, time preference).

John Maynard Keynes criticized the quantity theory of money in The General Theory of Employment, Interest, and Money. He had originally been a proponent of the theory, but he presented an alternative in the General Theory. Keynes argued that the price level was not strictly determined by the money supply. Changes in the money supply could have effects on real variables like output (Minsky, 2008).

Ludwig von Mises agreed that there was a core of truth in the Quantity Theory, but criticized its focus on the supply of money without adequately explaining the demand for money. He said the theory "fails to explain the mechanism of variations in the value of money". (Ludwing Von Mises, 1912).

2.3 Effects of Inflation on Household Expenditures

An increase in the general level of prices implies a decrease in the purchasing power of the currency. When the general level of prices rises, each unit of a shilling buys fewer goods and services. The effect of inflation is not distributed evenly in the economy, and as a consequence, there are hidden costs to some and benefits to others from this decrease in the purchasing power of money. During inflation, lenders or depositors who are paid a fixed rate of interest on loans or deposits will lose purchasing power from their interest earnings, while their borrowers benefit. Individuals or institutions with cash assets will experience a decline in the purchasing power of their holdings. Increases in payments to workers and pensioners often lag behind inflation, especially for those with fixed payments. Increases in the price level (inflation) erode the real value of money (the functional currency) and other items with an underlying monetary nature. Debtors who have debts with a fixed nominal rate of interest will see a reduction in the "real"

interest rate as the inflation rate rises. The real interest on a loan is the nominal rate minus the inflation rate (Timothy 2008).

High or unpredictable inflation rates are regarded as harmful to an overall economy. They add inefficiencies in the market, and make it difficult for households to budget or make plans long-term. Inflation can act as a drag on productivity as companies are forced to shift resources away from products and services to focus on profit and losses from currency inflation. Uncertainty about the future purchasing power of money discourages investment and saving. And inflation can impose hidden tax increases, as inflated earnings push taxpayers into higher income tax rates unless the tax brackets are indexed to inflation (Bulkley, 1981).

With high inflation, purchasing power is redistributed from those on fixed nominal incomes, such as some pensioners whose pensions are not indexed to the price level, towards those with variable incomes whose earnings may better keep pace with the inflation. This redistribution of purchasing power will also occur between international trading partners. Where fixed exchange rates are imposed, higher inflation in one economy than another will cause the first economy's exports to become more expensive and affect the balance of trade. There can also be negative impacts to trade from an increased instability in currency exchange prices caused by unpredictable inflation (Timothy, 2008).

2.4 Extent of Inflation Influences on the Household Consumption Patterns

Consumer spending is the amount of money spent by households in an economy. The spending includes durables, such as washing machines, and nondurables, such as food. It is also known as consumption and is measured monthly. Consumer spending is the most important determinant of short-term demand in an economy. The consumption function is a mathematical formula laid out by famous economist John Maynard Keynes. The formula was designed to show the relationship between real disposable income and consumer spending, the latter variable being what Keynes considered the most important determinant of short-term demand in an economy.

Inflation and consumption are not only more visible to unsophisticated observers, but they have formed the basis of most policy initiatives of many past years (Taylor, 2000). Inflation is measured by a price index that is not part of the accounts, though it is closely related to most components of the national income accounts like consumption levels indirectly. Both inflation and consumption are economic problems that affect the trend of economic activities. The trend of inflation and consumption in an economy will determine future macroeconomic policies to be undertaken in an economy. Thus, in making future decisions, the information available should be a bit error-free, as is expressed that; "When making decisions, people think about the future, and their expectations of the future can be modeled by assuming that they have a sense of economic fluctuations and use their information to make unbiased (but not error-free) forecasts. Economists generally agree that in the long run, inflation is caused by increases in the money supply (Trichet, 2004).

Economic fluctuations like inflation and consumption are recurrent from one business cycle to another and hence need to be considered in dealing with the overall economic performance of Kenya.

Macro policymakers try to achieve the best combination of consumption and inflation for an economy. This means that, though not reflected in the overall GNP figure annually and hence avoided in deciding the level of economic growth, inflation and consumption are still considered by macro policymakers as vital and important in any economy. Inflation is measured as a rate of change in the price index from one period to the next.

2.5 Implication of inflation on household income levels

Inflation is related to growth in the money supply over the long run. Monetarists believe the most significant factor influencing inflation or deflation is how fast the money supply grows or shrinks. They consider fiscal policy, or government spending and taxation, as ineffective in controlling inflation (Lagassé, 2000). According to the famous monetarist economist Milton Friedman, "Inflation is always and everywhere a monetary phenomenon". Monetarists assert that the empirical study of monetary history shows that inflation has always been a monetary phenomenon. The quantity theory of money, simply stated, says that any change in the amount of money in a system will change the price level. This theory begins with the equation of exchange. (Freidman, 1903). Monetarists assume that the velocity of money is unaffected by monetary policy (at least in the long run), and the real value of output is determined in the long run by the productive capacity of the economy. Under these assumptions, the primary driver of the change in the general price level changes in the quantity of money. With exogenous velocity (that is, velocity being determined externally and not being influenced by monetary policy), the money supply determines the value of nominal output (which equals final expenditure) in the short run. In practice, velocity is not exogenous in the short run, and so the formula does not necessarily imply a stable short-run relationship between the money supply and nominal output. However, in the long run, changes in velocity are assumed to be determined by the evolution of the payment mechanism. If velocity is relatively unaffected by monetary policy, the long-run rate of increase in prices (the inflation rate) is equal to the long-run growth rate of the money supply plus the exogenous long-run rate of velocity growth minus the long-run growth rate of real output.

3.0 METHODOLOGY AND LIMITATION OF THE STUDY

In this chapter, methods used in the study of the problems were duly explained out. Section 3.1 described the research design; description of the area under study is presented in section 3.2 whereas data types, sources, and collection methods, and their limitations are discussed in section 3.3. Section 3.4 presents the sample and sampling method while section 3.5 discusses the methods of data analysis. Section 3.6 outlines and discusses the model used to test the hypotheses. Section 3.6 presents the definition of variables and their measurements.

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3.1 Research Design

A descriptive survey design was used in the study. This design uses instruments such as questionnaires and interviews to gather data from the respondents. It was appropriate for it permitted the researcher to summarize the characteristics and of different groups of people and measures their attitudes, habits, and options or any variety of social issues . (Acry et al,2006) Cohen and Manon (1997) agree with this and further explain that the descriptive survey design is used to describe and interpret data. It is concerned with the relationships that exist, practices that prevail, points of view, or attitudes that are held, a process that is going on, or trends that are developing. (Orodho and Kombo,2002).

3.2 Area of Study

This study focuses on Mbita Division area. This is a village Division in a rural community in Homabay County of Nyanza, Kenya, on the shores of Lake Victoria. Mbita can be reached by road from Kisumu through Ahero-Katito-Kendu Bay-Homa Bay (150 km) or from Kisumu through Luanda Kotieno (90 km) plus a 45-minute ferry ride across Winam Gulf. This latter road was tarmacked in 2011. Mbita Division has several primary schools as well as secondary schools. It has both piped water and electricity since 2005. The average life expectancy is 37 years of age, and it has the highest HIV prevalence in Kenya with a rate of 30% compared to the national average of 6.7%. The Division is the capital of Mbita District (KNCR 2009). The main income-generating activity in Mbita Division is presently fishing and peasant farming, although tourism is becoming a new trade as the road connections to the rest of the country are being improved. There is a tourist resort on the beach about 3 km to the South of the Division, Lake Victoria Safari Village and Ruma National Park is a 40 Minutes drive from Mbita town, which is the center of Mbita Division. A causeway links Mbita town to the nearby Rusinga Island. Mbita Division is made up of four Locations namely Rusinga East, Rusinga West, Gembe West, and Gembe East. Chiefs who report to the D.O. govern these Locations.

3.3 Data Collection Methods

The study was based on two types of data, which are Primary data and Secondary data. Primary data were sought using several methods focusing on the study objectives. These included the use of questionnaires, key informants, and observation. The questionnaire was structured in different sections seeking to address the specific objectives of the study. Interviews were conducted with a cross-section of key informants in the Ministry of Trade and Industries at the district level to gather relevant information and insights about Inflation, the targeted officer was the District Trade Officer.

Through observation informal processes, attitudes, and trends exhibited by the population were gathered using the leaker scale. This was concerned mainly with the perceptions of the respondents, but it important to note that it may not be very accurate in ascertaining the effect of inflation on the household's expenditures. This method allowed noting the general feeling of the respondents towards inflation. Secondary data included information from academic journals,

periodicals, seminar papers, newspapers, and books. A review of the literature on inflation and relevant to the study was done.

3.4 Population and Sampling Procedure

The Division has an urban population of 62,974 with 30,559 males, 32,415 females, and 13,789 households (KNCR, 2009). A total of 374 heads of households will be sampled for the survey. This size will be arrived at with a sampling size table according to Krejcie (1970). The population in this area grows rapidly due to urbanization, new technologies like cell phone coverage and internet connection through cyber cafes, electrification, trade, and education. The research will exploit the use of sampling procedures, which include simple random sampling, stratified random sampling, and systematic random sampling.

3.5 Data Analysis

The collected data were to be analyzed by the use of descriptive statistics, which include mean and standard deviation, and relational statistics, which include correlation and regression. This was cross-sectional research and the households were interviewed based on their perceptions of the consumptions of the items, which they generally use from time to time.

From the Macroeconomic theory, household expenditure is a function of the inflation rate. This can be expressed algebraically as;

Household Expenditure (H.E) Inflation Rate (I.R)

In an economy, there is an autonomous household expenditure and induced expenditure influenced by a propensity to spend. The household expenditure is also influenced by some intervening variables within the economy as depicted on the conception framework.

The deterministic equation for the relationship between household expenditure and the inflation rate is expressed as;

Household Expenditure $= a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6$

The stochastic equation for the relationship between Household Expenditure and Inflation rate can be expressed as;

Household Expenditure $= a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + \ldots + U_t$, $U_t \approx N(n, 6_2)$

Where,

a- Autonomous Expenditure

b1, b2, b3, b4, b5, b6 are the coefficients of household expenditures

X1- Household partial payments for products produced by the government,

X2-Household purchase of products for their everyday needs,

X3-Income in kind earned by employees

X4-Households' payments to the general government for license and permits

X5-Imputed rents for services

X6 -Households' account consumption of outputs produced by unincorporated enterprises hold by households

U- Error term / Residual in the model

Assumptions

- Each household is independent in her expenditure pattern; no household has the power to either influence or controls the expenditure pattern of the other.

- The households are consistent in their expenditure patterns over a given period.

- The households keep track or record of the items they spend on regularly.

3.6 Data Presentation

The data collected were classified and presented by frequency distribution tables, charts, and graphs.

3.7 Validation of Data Collection Instrument

The researcher carried a reconnaissance survey aiding in the improvement of the questionnaire, checking ambiguity of the questions, and giving professionals questionnaire to read and comment, besides correlating variables to see whether they are sensible for the study.

3.8 Reliability of Data Collection Instrument

The research tested for the reliability of the data collection instrument using the internal consistency technique in which the scores obtained from the subjects were correlated and the Cronbach's Coefficient Alpha was computed to determine the correlation among the items.

3.9 Ethical Consideration

The major ethical issues of concern of this study were the informed consent of the respondents and the confidentiality of information given. Once the respondents are identified, their informed consent will be sought before administering the questionnaires or conducting interviews. Above all, the study ensured that information provided by every respondent was privileged and not to be passed to third parties. And to avoid individual exposure, the study reported data as a pool instead of individual data.

4.0 PRESENTATION OF FINDINGS, ANALYSIS, AND INTERPRETATIONS

4.0 Introduction

This chapter presents, discusses, and interprets the results that have been conducted to address the specific objective of the research.

4.1 Demographic Characteristics of the sampled Respondents

Table 1 below shows the gender of the respondents:

Gender	Frequency	Percentage
Male	177	49.9
Female	178	50.1
Total	**355**	**100**

Source: Field Survey Data, 2013

Table1 above shows the demographic characteristics of the sampled respondents. From the table, 177(49.9%) were males while the remaining 178(50.1%) were females.

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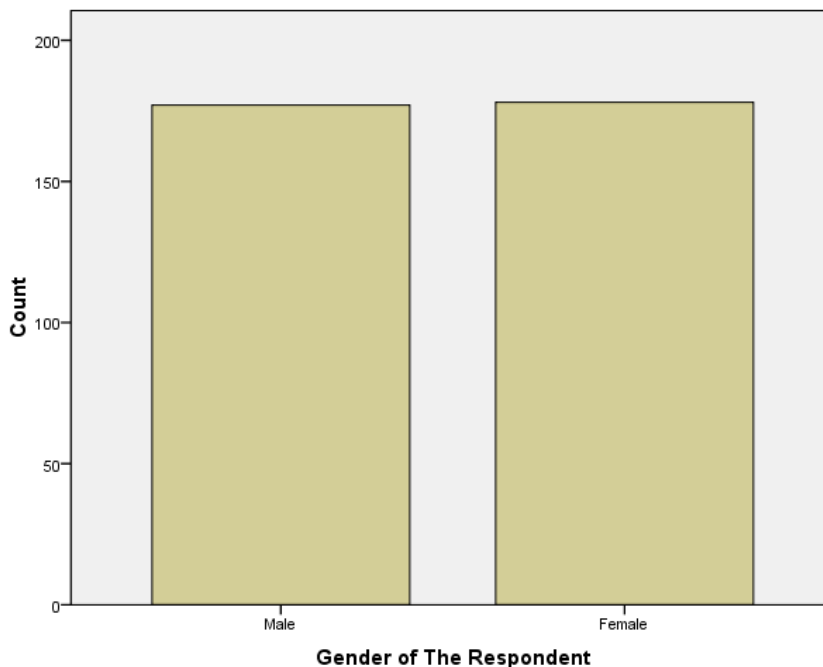
4.2 Household Expenditure

Table 2

Monthly Expense Category	Total Monthly Expense 6 Months Ago		Total Current Monthly Expense	
	Frequency	**Percent**	**Frequency**	**Percent**
Less than Ksh 1000	12	3.4	0	0
Ksh 1001-2000	58	16.3	19	5.4
Ksh 2001-3000	58	16.3	80	22.5
Ksh 3001-4000	92	25.9	97	27.3
Above Ksh 4000	135	38.0	159	44.8
Total	**355**	**100**	**355**	**100**

Source: Computed from field data, 2013

Table 2 above shows the household total expenditure in the current period and six months ago. As shown on the table, 135(38%) spent more than Ksh 4000 per month six months ago compared to 159(44.8%) of the total respondents who spent more than the same amount currently.

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4.3 The effect   of inflation on household's expenditure

Table 3 Descriptive Statistics on prices of a basket of consumer commodities

	N	Min.	Max.	Mean	Std. Deviation
Price Paid for Maize 6 months ago	355	.00	300.00	73.7352	48.91105
Price Paid for Maize Currently	355	.00	700.00	129.5211	113.34187
Price Paid for Fish 6 months ago	355	.00	500.00	133.4789	97.87688
Price Paid for Fish Currently	355	.00	550.00	184.2535	124.83296
Price Paid for Tea 6 months ago	355	.00	250.00	32.9014	36.12641
Price Paid for Tea Currently	355	.00	150.00	43.1831	31.84989
Price Paid for Sugar 6 months ago	355	.00	200.00	115.0282	37.03525
Price Paid for Sugar Currently	355	.00	230.00	137.1099	40.38895
Price Paid for Milk 6 months ago	355	.00	350.00	43.4789	39.47496
Price Paid for Milk Currently	355	.00	350.00	45.1577	38.18196
Price Paid for Eggs 6 months ago	355	.00	280.00	18.5183	38.19525
Price Paid for Eggs Currently	355	.00	420.00	25.0310	58.75677
Price Paid for Vegetables 6 months ago	355	.00	700.00	34.7465	75.29560
Price Paid for Vegetables Currently	355	.00	1050.00	59.5915	129.82676
Price Paid for Meat 6 months ago	355	.00	360.00	134.7099	95.85843
Price Paid for Meat Currently	355	.00	420.00	164.8648	113.70203
Price Paid for Other Foods 6 months ago	355	.00	320.00	4.2338	31.44539

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4.4 Expenditure on food per month six months ago and currently

Table 4

Monthly Expense Category	Expenditure on Food per Month 6 Months ago		Current Expenditure on Food per Month	
	Frequency	Percent	Frequency	Percent
Less than Ksh 1000	9	2.5	0	0
Ksh 1001-2000	60	16.9	30	8.5
Ksh 2001-3000	80	22.5	88	24.8
Ksh 3001-4000	74	20.8	99	27.9
Above Ksh 4000	132	37.2	138	38.9
Total	**355**	**100**	**355**	**100**

Table 5 Number of meals taken per day six months ago and currently

Number of Meals Category	Number of Meals 6 Months ago		Current Number of Meals Taken	
	Frequency	Percent	Frequency	Percent
Four Times a day	16	4.5	20	5.6
Thrice a day	240	67.6	256	72.1
Twice a day	95	26.8	79	22.3
None of the above	4	1.1	0	0
Total	**355**	**100**	**355**	**100**

MODEL

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.791[a]	.625	.623	.74206

a. Predictors: (Constant), Total Expenditure on education in a private school 6 months ago, Expenditure on Food per Month 6 Months ago

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	323.324	2	161.662	293.581	.000[a]
	Residual	193.831	352	.551		
	Total	517.155	354			

b. Dependent Variable: Total Monthly Expenses 6 months ago

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.791	.132		5.990	.000
	Expenditure on Food per Month 6 Months ago	.806	.035	.798	23.186	.000
	Total Expenditure on education in a private school 6 months ago	-7.571E-6	.000	-.025	-.718	.473

a. Dependent Variable: Total Monthly Expenses 6 months ago

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.827	.120		-6.882	.000
	Expenditure on Food per Month 6 Months ago	.298	.035	.295	8.609	.000
	Current Monthly Expenses	.896	.043	.694	20.959	.000
	Expenditure on Hospital Visits per month 6 months ago	.024	.051	.013	.462	.645
	Expenditure on Hospital Visits per month Now	-.156	.048	-.088	-3.232	.001

a. Dependent Variable: Total Monthly Expenses 6 months ago

5.0 SUMMARY, CONCLUSION AND POLICY RECOMMENDATIONS

5.1 Summary and findings

The study focused on the effects of inflation on household expenditure, the case of Mbita Division of Homabay County, Kenya.

The study has revealed that most of the households in Mbita Division of Homa County, Kenya reduced their expenditures due to inflation rates increase.

5.2 Conclusion

Most of the households went on with one meal a day, treated themselves locally without attending the hospitals, walking on foot, and most people used up their savings. The researcher intended to interview 374 heads of the households, of which only 355 household heads responded. There are 177 males and 178 females.

5.3 Policy Recommendations

The study can be used by policymakers in advising the households in Mbita Division to spend on the basic items, and initiate micro-saving programmes to assist in times of high inflation rates.

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REFERENCES

Ary,D,J. Razavieh, A, Soregen, C,(2006), Introduction to Research in Education

Abbott, Philip and Adeline Borot de Battisti (2011) "Recent Global Food Price Shocks: Causes, Consequences and Lessons for African Governments and Donors" *Journal of African Economies*, 20(suppl 1): i12-i62.

Abel, Andrew; Bernanke, Ben (2005). *Macroeconomics* (5th ed.). Pearson

AfDB (2011) "Inflation Dynamics in Selected East African Countries: Ethiopia, Kenya, Tanzania and Uganda" AfDB Brief. African Development Bank, Tunisia

Ajuzie, E.I.S; F.M. Edoho; M.N.Uwakonye; G.Y. Keleta (2008) „Import Response and Credit] in the latter 19th and early 20th century

Anoruo, E. (2002). Stability of the Nigerian M2 Money Demand Function in the SAP

Astin J. (1999) The European Union Harmonized Indices of Consumer Prices (HICP)

Ball, Laurence, 1999, "Policy Rules for Open Economies" in John B. Taylor (ed),

Bhattacharya, B. B (1972) Some Direct Tests of the Keynesian and Quantity

Blanchard, Olivier (2000). *Macroeconomics* (2nd ed.). Englewood Cliffs, N.J: Prentice Hall. ISBN0-13-013306-X Bombay University Press, Bombay

Brahmananda, P.R (1977) Determinants of Real National Income and Price Level,

Canberra Group. 2001. *Expert group on household income statistics: Final report and recommendations* (Ottawa).

Central Bank of Iceland, Accessed on September 11, 2008

Cohen , L,and Manion L. (1997) Research Methods in Education .

David Hume.(1978)[Interest," "Of Interest" in Essays Moral and Political The quantity theory Demand Function in Nigeria. *Economics Bulletin*, 3: 1-8.

Economics Bulletin Vol.5, No. 2 pp. 1−6

Emerson, J (2006) The Quantity Theory of Money: Evidence from the United States

Facility and Request for Modification of Performance Criteria—Staff Report; Press Release" Country Report No. 12/97, Washington DC: International Monetary Fund

Friedman (1987), "quantity theory of money

Friedman, Milton. *A Monetary History of the United States 1867–1960 (1963)*

Hall, Robert E.; Taylor, John B. (1993). *Macroeconomics*. New York: W.W. Norton. p. 637. ISBN0-393-96307-1

Hanke, Steve H; Alex KF Kwok (Spring/Summer 2008r). *"On the Measurement of Zimbabwe's Hyperinflation BBC*. 29 January 2009.

Hummel, Jeffrey Rogers (2007). "*Death and Taxes, Including Inflation: the Public versus Economists*" (January 2007). p.56

IMF (2012b) "Kenya: Third Review Under the Three-Year Arrangement Under the Extended Credit Inflationary Pressures In The New Economy: The Quantity Theory Of Money

Irving Fisher (1911), The Purchasing Power of Money and 12 s, Ludwig Von Mises ,1912).

Istat (2003b) Prezzi al consumo: informazioni, dati e analisi, www.istat.it.

John Stuart Mill (1848), Principles of Political Economy).

Kiptui, M. (2009) "Oil Price Pass Kiptui, M. (2009) "Oil Price Pass-Through into Inflation in Kenya" Kenya School of Monetary Studies Research Centre, Nairobi.

Lagassé, Paul (2000). "Monetarism". *The Columbia Encyclopedia* (6th Ed.). New York: Columbia University Press. ISBN0-7876-5015-3.

lsevier. (2010).Monetary and Exchange Rate Policies". Handbook of Development Economics,

Ludwing Von Mises (1912)The theory of Money and Credit

 Ludwing Von Mises(1912)Theorie des Geldes und der Umlaufsmittel [The Theory of Money

Mankiw, N. Gregory (2002). *Macroeconomics* (5th ed.). Worth

Mankiw, N. Gregory (2002). *Macroeconomics* (5th ed.). Worth and encouraging investment in non-monetary capital projects.

Michael F. Bryan , 15th October, 1997 , the origin and evolution of the World Inflation. *Federal Reserve Board's semiannual Monetary Policy Report to the Congress*. Roundtable. *Introductory statement by Jean-Claude Trichet on July 1, 2004*.

Milton Friedman, and Anna J. Schwartz, (1965), *The Great Contraction 1929–1933*, Princeton:

Misati, R. N., E. Nyamongo, L. Njoroge, S. Kaminchia, (2012) "Feasibility of inflation targeting in an emerging market: Evidence from Kenya", *Journal of Financial Economic Policy*, 4(2): 3 – 19.

Miyao, R. (1996) "Does a Cointegrating M2 Demand Relation Really Exist in the

Monetary Policy Rules, NBER, pp 127-56

Nwaobi, G. (2002). A Vector Error Correction and Non-nested Modeling of Money

O' Sullivan, Arthur; Steven M. Sheffrin (2003). *Economics: Principles in action*.

Paul H. Walgenbach, Norman E. Dittrich and Ernest I. Hanson, (1973). *Financial Accounting*, New York: Harcourt Brace Javonovich, Inc. Page 429. "The Measuring Unit principle

Period. *Economics Bulletin* 14: 1-9

Princeton University Press, ISBN 0-691-00350-5;

Rebecca H. et al, (2008), "Understanding the impact of Food Prices on Children", Children in Focus Plan UK

Revisited" *Journal of Business & Economics Research*, Volume 6, Number 5

Robert Barro and Vittorio Grilli (1994), *European Macroeconomics*, Ch. 8, p. 139, Fig. 8.1. Macmillan, ISBN 0-333-57764-7

Robert J. Gordon (1988), *Macroeconomics: Theory and Policy*, 2nd ed., Chap. 22.4, 'Modern theories of inflation'. McGraw-

Routeledge ,11 New Fetter Lane, London

Simon Newcomb ,(1885 Principles of Political Economy.Alfred de Foville,.

Sims, C.A (1972) „Money, Income and Causality" *The American Economic Review,*

SNA. 1993. System of national accounts 1993 (Brussels/Luxembourg, New York, Paris, Washington, D.C.; EUROSTAT, IMF, OECD, United Nations and World Bank).

Svensson,2003. *Journal of Economic Perspectives*, Volume 17, Issue 4 Fall 2003, p145-166

Thomson Wadsworth

Tract on Monetary Reform, London, United Kingdom: Macmillan, 1924 [2

Turkey," Central Bank of the Republic of Turkey\

United States?" *Journal of Money, Credit, and Banking* 28 (3), 365-380.

Weather online, Dated March 2013 at 3:00pm

William Poole, 2008 and Davis wheellock, Regional Economic Publications,

World Economic Outlook April 2012