DETERMINANTS OF INFLATION IN UGANDA

CASE STUDY: UGANDA

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ABBREVIATIONS

IMF International Monetary Fund

BOU Bank of Uganda

UGX Uganda Shillings

CBR Central Bank Rate

NGOs Non-Government Organizations

CPI Consumer Price Index

UMU Uganda Martyrs University

ABSTRACT

This study sought to find out the determinants of inflation in Uganda. The determinants considered in the study include; supply shocks, policies and demand shock. The study was conducted under 3 objectives; to examine trend of inflation in Uganda for selected products over the past 5 years, to identify and explain the trend of inflation of selected products over the past 5 years, to examine the policy interventions in managing inflation in Uganda.

The study used archival design and employed both quantitative and qualitative, panel data of 5 years from 2008 to 2012 was used. The findings from the research revealed that prices increase among different selected products were high in food prices and low in prices of Transport and communication. Policies like monetary and fiscal were employed to curb inflation.

The researcher concludes that policies like restrictive monetary and fiscal policies were able to curb on inflation and recommends recommended that the government should improvement on infrastructures; increase on the number of exports, adapt of policies like privatization, reduce on interest rates on agricultural loans and increasing their loan repayment period.

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CHAPTER ONE

GENERAL INTRODUCTION

1.0 Introduction

This chapter is basically about a brief introduction about Uganda, its location, economic situation, households. Statement of the problem, purpose of the study, objectives of the study, research questions, hypothesis.

1.1 Background of the study

The Twentieth century also produced more inflation than any other century in history. Inflation is nothing new. Roman rulers produced inflation in Third Century Rome by debasing their coins, China suffered inflation in the fourteenth century when the Emperors replaced coins with paper money, Europe and the rest of the world suffered inflation when gold and silver started flowing into the Old World from the New World in the sixteenth century, and the French and American Revolutions destroyed currencies in each of those countries.

Nevertheless, as we shall see, the Twentieth century produced the worst inflation in human history. Every single country in the world suffered worse inflation in the Twentieth century than in any century in history.

Throughout history, governments have tried to solve financial problems by simply printing more money. This can drive the value of money drastically downward, especially in modern markets where money is not backed by gold. Twice as many dollars in an economy makes those dollars worth half as much. After World War I, Germany was forced to pay war reparations of about $33 billion. It was virtually impossibly for the nation to produce that much actual output, so the government's only choice was to print more and more money, none of which was backed by gold. This resulted in some of the worst inflation ever recorded. By late 1923, it took 42 billion German marks to buy one U.S. cent! It

took 726 billion marks to buy something that had cost just one mark in 1919.(what is exactly inflation Ed Grabianowski..http://money.howstuffworks.com..).

Between 1981 and 1988, the government repeatedly devalued the Ugandan shilling in order to stabilize the economy. Before 1981 the value of the shilling was linked to the IMF's special drawing right (SDR--see Glossary). In mid-1980 the official exchange rate was USh9.7 per SDR or USh7.3 per United States dollar. When the Obote government floated the shilling in mid-1981, it dropped to only 4 percent of its previous value before settling at a rate of USh78 per US$1. In August 1982, the government introduced a two-tier exchange rate. It lasted until June 1984, when the government merged the two rates at USh299 per US$1. A continuing foreign exchange shortage caused a decline in the value of the shilling to USh600 per US$1 by June 1985 and USh1,450 in 1986. In May 1987, the government introduced a new shilling, worth 100 old shillings, along with an effective 76 percent devaluation. Ugandans complained that inflation quickly eroded the new currency's value. As a result, the revised rate of USh60 per US$1 was soon out of line with the black market rate of USh350 per US$1. Following the May 1987 devaluation, the money supply continued to grow at an annual rate of 500 percent until the end of the year. In July 1988, the government again devalued the shilling by 60 percent, setting it at USh150 per US$1; but at the same time, the parallel rate had already risen to USh450 per US$1. President Museveni regretted this trend, saying "If we can produce more, the situation will improve, but for the time being we are just putting out fires." The government announced further devaluations in December 1988 to USh165 per US$1; in March 1989, to USh200 per US$1; and in October 1989, to USh340 per US$1. By late 1990, the official exchange rate was USh510 per US$1; the black market rate was USh700 per US$1.

All of the government's efforts to bring the economy under control succeeded in reducing the country's staggering inflation from over 300 percent in 1986 to about 72 percent in 1988. Then the government

contributed to rising inflation by increasing the money supply to purchase coffee and other farm produce and to cover increased security costs in early 1989, a year in which inflation was estimated at more than 100 percent. Low rainfall levels in the south contributed to higher prices for bananas, corn, and other foodstuffs. Shortages of consumer goods and bottlenecks in transportation, distribution, marketing, and production also contributed to rising prices. Moreover, the depreciation of the United States dollar increased the cost of Uganda's imports from Japan and Europe. The government tried to curb inflation by increasing disbursements of import-support funds and tightening controls on credit. These measures helped lower the rate of inflation to 30 percent by mid-1990, but by late 1990, inflation had once again resumed its upward (Photius).

Recently there has been a considerable rise in the general price level after a very long period of relative price stability. Inflation rates have been in single digit levels for the most part of the last fifteen years. The annualized inflation rate was 3.1 percent in December 2010 but rose quickly through the year 2011 to 30.4 percent in October 2011 before easing slightly to 29 percent in November 2011. This note provides some insights into the causes of the recent inflationary trends. In a broad sense high inflation rates can emanate from both internal and external factors. The main internal factors in the case of Uganda have been of a structural nature and are mainly related to the relatively dismal performance of the agricultural sector.

1.2 Problem statement:

The opposition attributed the economic crisis to “the last fraudulent Presidential elections of February 2011, saying the ruling party, under the leadership of Museveni, raided the national coffers and spent over USH. 650 billion, (without approval by parliament), in voter bribes and other election related pledges, in addition to BOU caused the current inflation by printing banknotes worth two trillion shillings in 2011 hence creating current inflationary situation.((Ronald, 2012)

Though in response, BOU denied opposition claims and instead blamed the situation on supply-side

shocks like drought and high global fuel prices which increased local food and fuel pump prices and exchange rate depreciation.

As for imported inflation, It instead blamed the situation on supply-side shocks like drought and high global fuel prices which increased local food and fuel pump prices and exchange rate depreciation.
Inflation has been driven by both domestic and external factors. One of the main domestic factors is increasing food prices owing to supply constraints. The second domestic factor is exchange rate depreciation. The third one is strong growth in aggregate demand that responded to acceleration of economic activity in the first half of FY 2010/11. External factors included increasing crude oil prices on international market and global inflation in Uganda's major trading partners, implying imported inflation. Finally, high demand for the country's food commodities in the region and rest of the world has put pressure on food prices, owing to supply rigidities

According to Iknowuganda, (2007), there are three major types of inflation, namely:
Demand-pull inflation: inflation caused by increases in aggregate demand due to increased private and government spending, etc. the election speculation which led to capital flight; increased or expansive government expenditure that is largely recurrent and increases the local currency in circulation
Cost-push inflation: presently termed "supply shock inflation," caused by drops in aggregate supply due to increased prices of inputs, for example. Take for instance a sudden decrease in the supply of oil, which would increase oil prices. Producers for whom oil is a part of their costs could then pass this on to consumers in the form of increased prices.

1.3 Research objective

1. Examine trend of inflation in Uganda for selected products over the last 5 years

2. Identify and explain the trend of inflation of selected products over the past 5 years

3. Examine the policy interventions in managing inflation in Uganda

1.4 Research questions

1. What is trend of inflation for selected products in Uganda?

2. What is trend of inflation in Uganda over the past 5 years?

3. What policy interventions are in place to manage inflation in Uganda?

1:5 Scope of the study;

According to Onen (2008), the scope of the study can be defined as the delimitation of the study and it refers to a description of the boundary of the study in term of content, geographical and time.

1.5.1. Content scope.

The study concentrated on establishing the determinants of inflation in Uganda. The study focuses on inflation which was the independent variable with several indicators or dimensions considered which include; supply shocks, demand shocks, fiscal and monetary policies.

1.5.2 Geographical scope

The study was carried out at Bank of Uganda located at the heart of Kampala city along Jinja road found in Kampala City. Bank of Uganda was selected as a case study because it is the Central Bank in Uganda with the longest serving history in the country and currently so popular. It has opened up a number of branches in the country and they are doing well in the development of the country.

1.5.3 Time scope

The researcher mainly focused on the five years to gather the information that was from 2008 to 2012. The researcher focused on the period to estimate the determinants of inflation in Uganda.

1.6 significance of the study

The findings will provide knowledge to the public to different of components of inflation after researching about the types causes and effects of inflation.

The study will help the researcher to acquire skills of gathering information and data analysis which would be vital in the future career of the researcher.

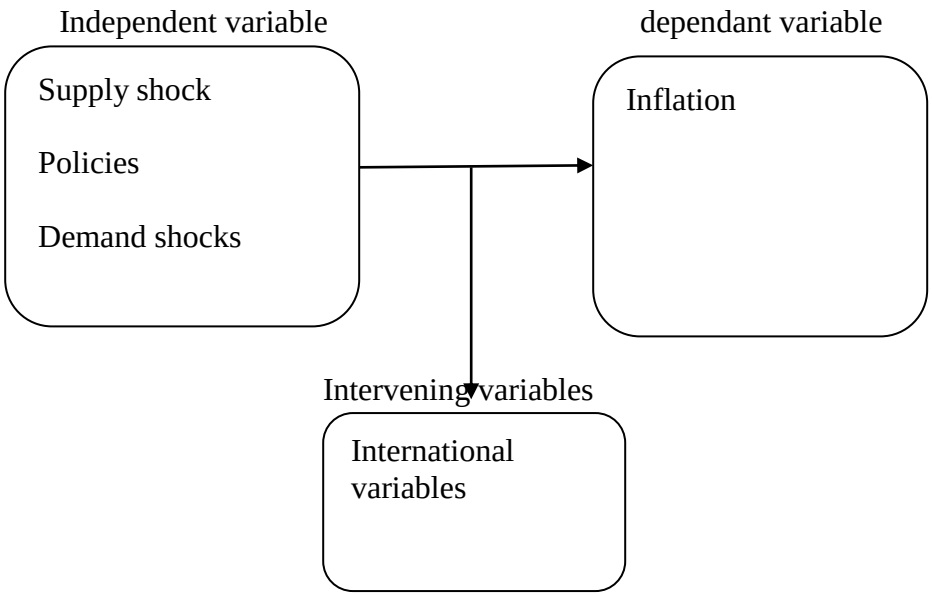
The government can use some of my recommendations to improve on their policies and operations.

The researched material will enrich the existing literature to those who will research on this topic in future and scholars hence creating a platform for a broader field of the study and prompting further research.

1:7 Justification of the study

Improvement of the economy since it addresses issues that are effective in combating and escalating inflation in Uganda which are either employed by government or individual.

Figure 1: Conceptual frame work



Source: Primary data

The conceptual frame work shows the relationship between the independent and the dependent variables. The attributes of the variables are also mentioned and are used by the researcher to form objectives that correlate the variable. The framework here under describes the relationship.

1.8 Definition of key terms

Inflation: The rate at which general level of prices for good and services is rising and subsequently purchasing power falling.

Supply shocks: This is un expected event that changes the supply of a product resulting in sudden change in its price.

Standard deviation; This is a statistical measure of how to securities move in relation to each other.

Monetary policy: this is the process by which monetary authority of a country control supply of money, targeting a rate of interest for the purpose of promoting economic growth and stability.

Fiscal policy: This is the use of government revenue collection (taxation) and expenditure (spending) to influence the economy, or else it involves the government changing the levels of taxation and government spending in order to influence Aggregate Demand and the level of economic activity.

Consumer Price Index: Measures changes in the price level of a market basket of consumer goods and services purchased by households.

Weighted Average Mean: An average in which each quantity to be averaged is assigned a weight. These weightings determine the relative importance of each quantity on the average.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This second chapter of the research study presents and analyses the literature review of the research study. The chapter discusses the theoretical assertions and views of different scholars, authors and writers on the determinants of inflation in Uganda. The chapter is organized in such a way that an introduction is given, then it explains the theoretical review is presented, thereafter the different theories on inflation are discussed, then the chapter analyses the tendencies of inflation as a macroeconomic problem in Uganda.

2.1 Conceptual Reviews

Generally, inflation can simply be defined as the general rise in the level of prices of goods and services in an economy over a period of time (Hudson, 2002). Hudson (2002) notes that when the general price level rises, each unit of currency buys fewer goods and services. Consequently, inflation reflects a reduction in the purchasing power of currency per unit of money, a loss of real value in the medium of exchange and unit of account within the economy (Hudson, 2002). A chief measure of price inflation is the inflation rate, the annualized percentage change in a general price index normally the consumer price index over time (Laytton, 2009). 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 (Laytton, 2009)

Positive effects include ensuring that central banks can adjust real interest rates intended to mitigate recessions and encouraging investment in non-monetary capital projects. Policy makers and economists

world allover agree that high rates of inflation and hyper inflation are caused by an excessive growth of the money supply (Hart, 2009). 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 changes in the velocity of money supply, supply measures in particular the supply velocity. 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. Today, most economies favor a low and steady rate of inflation (Hall, 2009).

Nevertheless, low sometimes referred to 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 (Hart, 2009). The task of keeping the rate of inflation low and stable is usually given to monetary authorities. Generally, these monetary authorities are the central banks that control monetary policy through the setting of interest rates through open market operation and through the setting of banking reserve requirement (Hall, 2009).

2.2 Measuring Inflation in an Economy

Measuring inflation in an economy requires objective means of differentiating changes in nominal prices on a common set of goods and services and distinguishing them from those price shifts resulting from changes in value such as volume, quality, or performance (Coleman, 2007). This single price change would not, however, represent general inflation in an overall economy.

According to Hall (2007), to measure overall inflation, the price change of a large basket of representative goods and services is measured. This is the purpose of a price index, which is the combined price of goods and services (Hall, 2007). Hall (2007), notes that the combined price is the sum of the weighted prices of items in the basket. A weighted price is calculated by multiplying the

unit prices of an item by the number of that item the average consumer purchases. Weighted pricing is a necessary means to measuring the impact of individual unit price changes on the economy's overall inflation (Coleman, 2007).

The CPI, for example, uses data collected by surveying households to determine what proportion of the typical consumer's overall spending is spent on specific goods and services, and weights the average prices of those items accordingly. Those weighted average prices are combined to calculate the overall price (Hagger, 2007). To better relate price changes over time, indexes typically choose a base year price and assign it a value of 100 percent. Index prices in subsequent years are then expressed in relation to the base year price nevertheless, while comparing inflation measures for various periods one has to take into consideration the base effect as well (Hagger, 2007).

Inflation measures are often modified over time, either for the relative weight of goods in the basket, or in the way in which goods and services from the present are compared with goods and services from the past (Ball, 2005). Over time, adjustments are made to the type of goods and services selected in order to reflect changes in the sorts of goods and services purchased by typical consumers. New products may be introduced, older products disappear, the quality of existing products may change, and consumer preferences can shift (Hart, 2009).

Both the sorts of goods and services which are included in the basket and the weighted price used in inflation measures will be changed over time in order to keep pace with the changing marketplace (Ball, 2005). Inflation numbers are often seasonally adjusted in order to differentiate expected cyclical cost shifts. For example, home heating costs are expected to rise in colder months, and seasonal adjustments are often used when measuring for inflation to compensate for cyclical spikes in energy or fuel demand (Sergeant, 2002). Inflation numbers may be averaged or otherwise subjected to statistical techniques in order to remove statistical noise and volatility of individual prices. When looking at

inflation, economic institutions may focus only on certain kinds of prices, or special indices, such as the core inflation index which is used by central banks to formulate monetary policy (Sergeant, 2002).

Most inflation indices are calculated from weighted averages of selected price changes. This necessarily introduces distortion, and can lead to legitimate disputes about what the true inflation rate is. This problem can be overcome by including all available price changes in the calculation, and then choosing the median value (Turron, 2007). In some other cases, governments may intentionally report false inflation rates for instance; the government of Argentina has been criticized for manipulating economic data, such as inflation and GDP figures, for political gain and to reduce payments on its inflation-indexed debt (Brown, 2010).

2.3 General Effects of Inflation

According to Debelle (1998), an increase in the general level of prices implies a decrease in the purchasing power of the currency. That is, when the general level of prices rises, each monetary unit 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 (Brown, 2010). For example, with inflation, segments in society which own physical assets such as property, food staffs and stock often benefit from the price or value of their goods and services going up while those who seek to acquire them will need to pay more for them (Hall, 2007). Generally, their ability to do so will depend on the degree to which their income is fixed. Increases in the price level inflation erode the real value of money and other items with an underlying monetary nature (Brown, 2010).

High or unpredictable inflation rates are regarded as harmful to an overall economy. They add inefficiencies in the market, and make it difficult for companies to budget or plan long-term (Whittingham, 2003). Inflation can act as a drag on productivity as companies are forced to shift

resources away from products and services in order 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 (Whittingham, 2003).

2.4 Inflationary Trend Analysis

At this point, it is necessary to highlight the trend in economic variables that have the potential to impact the inflationary tendencies in the economy of Uganda. The period from 2007 to 2008 in Table 1.0 below witnessed the lowest average inflation of 3.1% (Kasekende, 2010). The low growth in PI during this period was mainly attributed to the external oil price shock and structural changes of the domestic economy. Inflationary pressure fasted up a little and settled to 4.6 % on average during the year 2008 to 2009. During this era, growth of import prices and house hold consumables were below the warning limits (Kasekende, 2010).

Inflationary tendencies increases during 2009 to 2010 to 5.3% roughly are attributed to excessive increase in money supply to both public and private sector expenditures brought about by increase in foreign exchange rate and overall cost of money markets (BOU Report, 2009). During the last five years, the inflationary level has remained under 3.1% and then suddenly increased to 3.2% in 2008-2009 and settled to 3.3% in 20095-10 (BOU Report, 2009). However, excessive money flows along with the import price hike in 2011-12 and 2012-2013 resulted into inflationary pressure at rates of 3.6% and 3.4% respectively.

Table 2. 1: Inflationary Trend Analysis

Year	Price Index	GDP	Import Price	Exchange Rate	Consumer Price
2005-2006	4.4	2.0	2.1	12.9	3.4
2006-2007	3.5	3.1	4.8	5.1	2.8
2007-2008	3.1	4.7	8.9	48	4.1
2008-2009	4.2	7.5	167	1.6	3.5
2009-2010	4.8	8.6	6.4	3.1	3.7
2011-2012	4.4	7.2	8.8	6.8	3.4
2012-2013	4.0	6.6	8.0	9.3	3.6

Source: Uganda Bureau of Statistics (2013).

Essentially it is vital for every player in the economy to ask whether inflation if bad or good. Generally, a reasonable rate of inflation of around 3% to 6% (Khan, 2005) is often viewed to have positive effects on the economy since it encourages investment and production and allows growth in wages. However, when inflation crosses the reasonable limits it delivers negative effects. For instance, there will be always a reduction in the value for of money which is the medium of exchange. This results in uncertainty of the value of gains and losses of borrowers and lenders, and buyers and sellers.

2.5 Cost Push Inflation

Keynesians argues that in modern economy, many prices are downward inflexible, instead of prices of non oil related goods falling, a supply shock would cause a recession like rising un employment and reducing GDP. It is the costs of such that likely influence governments. It is the costs of such a recession that cause governments and central banks to allow a supply shock to result into inflation (Blejer, 2000). They also point out that though there was no deflation in the 1980s, there was a definite fall in the inflation rate during this period. Deflation was prevented because supply shocks are not the

only cause of inflation; in terms of the modern triangle model of inflation, supply-driven deflation was counteracted by demand pull inflation and built-in inflation resulting from adaptive expectation and the price and wage spiral (Yeldan, 2009).

Cost-push inflation is a type caused by substantial increases in the cost of important goods or services where no suitable alternative is available. A situation that has been often cited of this was the oil crisis of the 1970s, which some economists see as a major cause of the inflation experienced a round the global economy (Koptis, 2008). It is argued that this inflation resulted from increases in the cost of petroleum imposed by the member states of OPEC. Since petroleum is so important to industrialized economies, a large increase in its price can lead to the increase in the price of most products, raising the inflation rate. This can raise the normal or built in inflation rate, reflecting adaptive expectations and the price wage spiral, so that a supply shock can have persistent effects (Anabranch, 1997). Monetarist economists such as Milton Friedman argue against the concept of cost-push inflation because increases in the cost of goods and services do not lead to inflation without the government and its central bank cooperating in increasing the money supply.

The argument is that if the money supply is constant, increases in the cost of a good or service will decrease the money available for other goods and services, and therefore the price of some those goods will fall and offset the rise in price of those goods whose prices have increased. One consequence of this is that monetarist economists do not believe that the rise in the cost of oil was a direct cause of the inflation of the 1970s (Laytton, 2009). They argue that although the price of oil went back down in the 1980s, there was no corresponding deflation. Keynesian argue that in a modern industrial economy, many prices are sticky downward or downward inflexible, so that instead of prices for non-oil-related goods falling in this story, a supply shock would cause a recession, for instance rising unemployment and falling gross domestic product (Hart, 2009).

It is the costs of such a recession that likely cause governments and central banks to allow a supply shock to result in inflation. They also note that though there was no deflation in the 1980s, there was a definite fall in the inflation rate during this period. Actual deflation was prevented because supply shocks are not the only cause of inflation; in terms of the modern triangle model of inflation, supply-driven deflation was counteracted by demand-pull inflation and built-in inflation resulting from expectations and the price and wage spiral (Hart, 2009).

2.6 Demand Pull Inflation

The excess-demand presumption argues that excess demand for goods and services over supply in an economy is the main source of inflation. This view that was implicitly reflected in the Phillips empirical study in the late 1950s, which showed a trade-off between unemployment and inflation (the Phillips curve), led the monetarists to search for a theory that can explain. The existence of excess–demand propagates inflationary conditions (Coleman, 2007).

According to Boyes and Melvin (2007) demand pull is a product of increased spending it is more likely to occur in the economy that is producing at maximum capacity if resources are fully employed it may be impossible in the short run to increase output to meet increased demand. Some economists claim that rising prices in the late 1960s were product of increased government spending for Vietnam War caused U.S price levels to rise.

In their search for the causes of excess-demand in an economy, the monetarists adopted the quantity theory of money as their point of departure. The original quantity theory is expressed by fisher's equation of exchange as: MV=PT, Where M= Stock of Money in the Economy, V= Velocity of Circulation of Money, P= Average Price Level, T= Number of Transactions in the Economy (Friedman, 1956). The classical economists assumed that (*V*) is constant over time and that the economy is at its full employment level, meaning that (*T*) is also constant. Under these restrictions, it

implies that changes in the money stock (ΔM*)* directly affect changes in the price level. Also, the monetarists with Milton Friedman (1956) as its chief advocate followed the same line of argument as their predecessors (the classical economists). They only differ in respect to the assumptions on (*V*) and (*T*).

Friedman (1956) considered that money demand is one of the five main forms of holding wealth (other forms of holding wealth are; equities, bonds, physical goods and human capital) and that any significant change in any of the other forms of wealth would cause velocity of circulation to vary, but only in the long- run. Based on the fact that velocity of circulation does not change in the short-run but does in the long-run in a steady manner, Friedman concluded that, money supply and velocity of circulation could be treated as existing independently of one another. Considering this as the case, he concluded that, money national income ($Y = T$ in the original quantity theory) could be traced almost exclusively to changes in the money supply (Friedman, 1956). This argument by the monetarists therefore suggests that in the long-run, growth in the money national income could only be achieved through adherence to steady long-term growth in the money supply.

Based on this, since velocity of circulation is constant in the short-run, it implies that changes in money national income (*Y*) must be equal to and move in the same direction as money supply changes, if the price level is to remain steady. This implies that any increases in money supply beyond the increases in money national income will lead to increases in the general price level. Hence when the rate of growth in money supply is greater than that of gross domestic product in the long run, inflation is the ultimate result. Friedman concluded by saying that "inflation is always and everywhere a monetary phenomenon.

2.7 Monetary Policy

According to Mishkin (2007), monetary policy is the process by which the monetary authority of a

country controls the supply of money, often targeting a rate of interests for the purpose of promoting economic growth and stability. In essence, the primary objective of a monetary policy is usually to stable prices and manage unemployment levels. Mishkin (2007) asserts that the monetary theory provides insight into how to craft optimal monetary policy. It is referred to as either being expansionary or contractionary, where an expansionary policy increases the total supply of money in the economy more rapidly than usual, and contractionary policy expands the money supply more slowly than usual or even shrinks it. Expansionary policy is traditionally used to try to combat unemployment in a recession by lowering interest rates in the hope that easy credit will entice businesses into expanding (Mankiw, 2007). Contractionary policy is intended to slow inflation in order to avoid the resulting distortions and deterioration of asset values.

Boyes & Melvin(2007), significant increase in the level of indirect taxes will raise domestic prices, most Ugandans traders due to increase in taxes by the government , shift the burden to the final consumer through imposition of higher prices on the products.

Monetary policy is associated with interest rates and availability of credit. Instruments of monetary policy have included short-term interest rates and bank reserves through the monetary base (Schechter, 2004). For many centuries there were only two forms of monetary policy: decisions about coinage, decisions to print paper money to create credit. Interest rates, while now thought of as part of monetary authority, were not generally coordinated with the other forms of monetary policy during this time (and Guender, 2002). Monetary policy was seen as an executive decision, and was generally in the hands of the authority with the power to coin. With the advent of larger trading networks came the ability to set the price between gold and silver, and the price of the local currency to foreign currencies. This official price could be enforced by law, even if it varied from the market price (Froyen and Guender, 2002).

2.7.1 Monetary Policy in Developing Countries

Developing countries may have problems establishing an effective operating monetary policy. The primary difficulty is that few developing countries have deep markets in government debt. The matter is further complicated by the difficulties in forecasting money demand and fiscal pressure to levy the inflation tax by expanding the monetary base rapidly. In general, the central banks in many developing countries have poor records in managing monetary policy. This is often because the monetary authority in a developing country is not independent of government, so good monetary policy takes a backseat to the political desires of the government or is used to pursue other non-monetary goals. For this and other reasons, developing countries that want to establish credible monetary policy may institute a currency board or adopt dollarization. Such forms of monetary institutions thus essentially tie the hands of the government from interference and, it is hoped, that such policies will import the monetary policy of the anchor nation.

2.7.2 Monetary Policy and Inflation Targeting

Under this policy approach the target is to keep inflation under a particular definition such as CPI, within a desired range (Labonte, 2005). The inflation target is achieved through periodic adjustments to the Central Bank interest rate target. The interest rate used is generally the interbank rate at which banks lend to each other overnight for cash flow purposes. Depending on the country this particular interest rate might be called the cash rate or something similar (Makinen, 2007). According to Makinen (2007), the interest rate target is maintained for a specific duration using open market operations. Typically the duration that the interest rate target is kept constant will vary between months and years. Changes to the interest rate target are made in response to various market indicators in an attempt to forecast economic trends and in so doing keep the market on track towards achieving the defined inflation target (. For example, one simple method of inflation targeting called the Taylor rule adjusts the interest rate in response to changes in the inflation rate and the output gap.

2.8 Fiscal Policy

Fiscal policy is the use of government revenue collection through taxation and expenditure through spending to influence the economy. The two main instruments of fiscal policy are changes in the level and composition of taxation and government spending in various sectors. These changes can affect the following macro economic variables in an economy: aggregate demand and the level of economic activity, the distribution of income, the pattern of resource allocation within the government sector and relative to the private sector. Fiscal policy refers to the use of the government budget to influence economic activity.

2.8.1 Forms Tools of fiscal Policy

The three main forms of fiscal policy are:

(a) Neutral fiscal policy is usually undertaken when an economy is in equilibrium. Government spending is fully funded by tax revenue and overall the budget outcome has a neutral effect on the level of economic activity.

(b) Expansionary fiscal policy involves government spending exceeding tax revenue, and is usually undertaken during recessions.

(c) Fiscal policy occurs when government spending is lower than tax revenue, and is usually undertaken to pay down government debt.

Governments use fiscal policy to influence the level of aggregate demand in the economy, in an effort to achieve economic objectives of price stability, full employment, and economic growth. Keynessian theory suggests that increasing government spending and decreasing tax rates are the best ways to stimulate aggregate demand and decreasing spending & increasing taxes after the economic boom begins. Keynesians argue this method be used in times of recession or low economic activity as an essential tool for building the framework for strong economic growth and working towards full

employment. In theory, the resulting deficits would be paid for by an expanded economy during the boom that would follow; this was the reasoning behind the New Deal. Governments can use a budget surplus to do two things: to slow the pace of strong economic growth and to stabilize prices when inflation is too high. Keynesian theory posits that removing spending from the economy will reduce levels of aggregate demand and contract the economy, thus stabilizing prices.

But economists still debate the effectiveness of fiscal stimulus. The argument mostly centers on crowding out: whether government borrowing leads to higher interest rates that may offset the simulative impact of spending. When the government runs a budget deficit, funds will need to come from public borrowing, overseas borrowing, or monetizing the debt. When governments fund a deficit with the issuing of government bonds, interest rates can increase across the market, because government borrowing creates higher demand for credit in the financial markets. This causes a lower aggregate demand for goods and services, contrary to the objective of a fiscal stimulus. Neoclassical economists generally emphasize crowding out while Keynesians argue that fiscal policy can still be effective especially in a liquidity trap where, they argue, crowding out is minimal. Some classical and neo classical economists argue that crowding out completely negates any fiscal stimulus; this is known as the treasury view which Keynesian economics rejects. The Treasury View refers to the theoretical positions of classical economists in the British Treasury, who opposed Keynes' call in the 1930s for fiscal stimulus. The same general argument has been repeated by some neoclassical economists up to the present.

In the classical view, the expansionary fiscal policy also decreases net exports, which has a mitigating effect on national output and income. When government borrowing increases interest rates it attracts foreign capital from foreign investors. This is because, all other things being equal, the bonds issued from a country executing expansionary fiscal policy now offer a higher rate of return. In other words, companies wanting to finance projects must compete with their government for capital so they offer

higher rates of return. To purchase bonds originating from a certain country, foreign investors must obtain that country's currency. Therefore, when foreign capital flows into the country undergoing fiscal expansion, demand for that country's currency increases. The increased demand causes that country's currency to appreciate.

Once the currency appreciates, goods originating from that country now cost more to foreigners than they did before and foreign goods now cost less than they did before. Consequently, exports decrease and imports increase. Other possible problems with fiscal stimulus include the time lag between the implementation of the policy and detectable effects in the economy, and inflationary effects driven by increased demand. In theory, fiscal stimulus does not cause inflation when it uses resources that would have otherwise been idle. For instance, if a fiscal stimulus employs a worker who otherwise would have been unemployed, there is no inflationary effect; however, if the stimulus employs a worker who otherwise would have had a job, the stimulus is increasing labor demand while labor supply remains fixed, leading to wage inflation and therefore price inflation.

2.9 Demand Shock

According to Menzie et al (2007), a demand shock is a sudden event that increases or decreases demand for goods or services temporarily. Menzie et al (2007) points out that a positive demand shock often increases demand whereas a negative demand shock decreases demand. In general, prices of goods and services are affected in both cases (Timothy, 2009). According to Timothy (2009), when demand for good or service increases, its price typically increases because of a shift in the demand curve to the right. When demand decreases, its price typically decreases because of a shift in the demand curve to the left. Demand shocks can originate from changes in things such as tax rates, money supply, and government spending (Satu, 2007). For example, taxpayers owe the government less money after a tax cut, thereby freeing up more money available for personal spending. When the

taxpayers use the money to purchase goods and services, their prices go up.

During the global financial crisis of 2008, a negative demand shock in the United States economy was caused by several factors that included falling house prices, the subprime mortgage crisis, and lost household wealth, which led to a drop in consumer spending (Richard and Roger, 2003). To counter this negative demand shock, the Federal Reserve System lowered interest rates. Before the crisis occurred, the world's economy experienced a positive global supply shock. Immediately afterward, however, a positive global demand shock led to global overheating and rising inflationary pressure (Richard and Roger, 2003).

According to Kandil (2000), when demand for goods or services increases or decreases, the price of that goods or services typically increases or decreases due to a shift in the demand curve to the right or left respectively. Kandil (2000) notes that this type of shock can come from such things as tax cuts or increases, loosening or tightening of the money supply and increases or decreases in government spending. For example, a tax cut reduces the amount of money that taxpayers owe the government and frees up money for personal spending (Kandil, 2000). This money is then used by taxpayers to consume certain products and services, which bids up their prices.

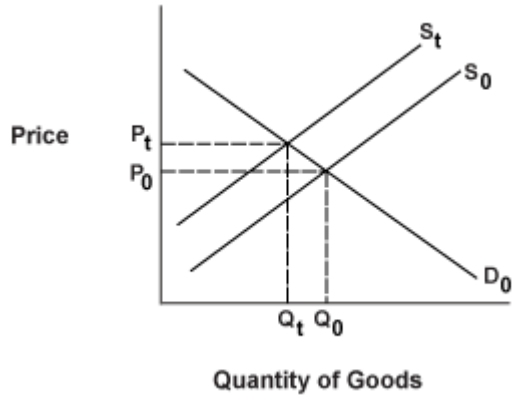
2.10 Supply shock

According to Saku (2007), a supply shock is an event that suddenly changes the price of a commodity or service. Saku (2007) points out that a supply shock may be caused by a sudden increase or decrease in the supply of a particular good and often, this sudden change affects the equilibrium price for goods and services. On the other hand, according to Froyen (2003), a negative supply shock which is a sudden supply decrease in goods and services will raise prices and shift the aggregate supply curve to the left. A negative supply shock can cause stagflation due to a combination of raising prices and falling output.

According to B.O.U (2011), Food prices had been driven upwards sharply due to supply shocks to food production notably drought in Uganda .Within non-food prices experienced annual inflation rate of over 20% mainly because these items were imported and their domestic prices were affected by exchange rate depreciation in 2010-2011 Uganda shilling depreciated by 14.5% against the US dollar.

Froyen and Waud (1983) point out that a positive supply shock characterized by an increase in supply will lower the price of said good and shift the aggregate supply curve to the right. Froyen (2003) continue to point out that a positive supply shock could be an advance in technology (a technology shock) which makes production more efficient, thus increasing output

Figure 2: Illustration Graph for a Supply Shock



When output is increased or decreased the price of the good decreases (increases) due to a shift in the supply curve to the right or left. The above diagram demonstrates an increase in price due to a decrease in the supply of a good relative to demand. Supply shocks can be created by any unexpected event that constrains output or disrupts the supply chain, including natural disasters and geopolitical developments such as acts of war or terrorism. The commodity that is widely perceived as being the most vulnerable to negative supply shocks is oil, since most of the world's supply comes from the volatile Middle East region.

2.9 Conclusion

Inflation is one of the major macroeconomic problems that have profoundly influenced the global economy. Attempts by the government to control this menace using the traditional monetary and fiscal policies have provided solution to inflation. Nevertheless, the knowledge of the determinants of inflation in Uganda is the necessary prerequisite to evolving a long term solution. Macroeconomic uncertainties that are associated with inflation rate in Uganda are fiscal deficits, money supply, interest rate, and exchange rate among others. Consequently, the government should design policies that will enhance the reduction of the general price level but enhance increased productivity of goods and services. Such policies may include wage control, monetary policy including reduction in money supply, fiscal policy including increase in personal income tax and reduction in government in government expenditure.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter presents research methodology. As shall be seen, this methodology was influenced by the purpose of this study and it was based on how the research questions shall be responded. In order to achieve the objective of the study, the research methodology was designed to find out accurate information about determinant of inflation.

This chapter intends to show the instruments or tools that the researcher used in collecting data and the ways or methods in which data was collected by the researcher during the research process and these ways or methods include;, reading educative literature or materials like text books, and reports, surfing and reading articles on the Internet.

Therefore, the chapter outlines the study design used in the research, , the sampling designs ,data collections methods, quality control methods of the data, research procedure, data analysis and presentation, ethical considerations and limitations of the study.

3.1 Research Design

The researcher used archival research design at Bank of Uganda. In this regard the researcher was able to read all the published data for five years starting from 2008 to 2012 in Bank of Uganda and it made it possible for him to understand the dynamic factors of the research by having a first-hand experience.

In addition, the study was descriptive and explanatory and therefore gave opportunity to study in depth the determinants of inflation in Uganda. Similarly, since in modern research, it is inevitable to use a combination of methodologies, the study was both quantitative and qualitative. Under the quantitative method, the researcher used cross sectional survey where data was collected on the variables of interest from the selected sample. Under the qualitative method, the researcher availed information by reading

explanation given on published data on thematic basis.

3.2 Area of the Study.

The study was carried out at Bank of Uganda located at the heart of Kampala city along Jinja road found in Kampala City. Bank of Uganda was selected as a case study because it is the Central Bank in Uganda with the longest serving history in the country and currently so popular. It has opened up a number of branches in the country and they are doing well in the development of the country.

3.3 Sampling designs

A non-probabilistic sample of the living was selected. They include the following; the B.O.U, The statistical information provided was helpful to the researcher to understand determinants of inflation in Uganda. Non probability sampling does not involve random selection and it is cheap

3.4 Methods of data collection

Secondary data was collected through statistics published on the website of Bank of Uganda and the information is related to the reach topic.

Secondary data was obtained from available sources such as text books, journals, on-line
Published articles, information from the local newspapers and Internet search engines among others.
This included information from reports, internet sites, books and information from this source proved is to be of value to the researcher because it will enrich the review of related literature and also provide an insight of inflation & its determinants in Uganda.

3.5 Quality control methods

A process through which researcher seeks to ensure that the research quality is maintained or improved and errors are reduced or eliminated. The researcher used this method to make sure that data collected is of required quality by using the following methods below;

3.5.1 Validity.

Validity is the accuracy and meaningfulness of inferences, which are based on the research results; it is the degree to which results obtained from the analysis of the data actually represents the phenomenon under study. Therefore validity looks at how accurately represented are the variables of study (Mugenda and Mugenda ,2003), the study adopted content validity which is the degree to which data collected using particular instruments represents a specific domain of indicators or content of a particular concept , to ensure content validity of instruments , the researcher consulted the supervisor for proper guidance, after which the researcher pre-tested the instruments and after pre-testing ambiguous questions were removed or polished so as to remain with the finest data required..

3.5.2. Reliability.

According to Mugenda and Mugenda (2003), reliability of an instrument refers to the ability of instrument to collect the same data consistently under similar condition. In relation to Burns (1997), the concept deals with accuracy of instruments and consistence of the data collected by it. The researcher aims was to use instruments that are required consistent information in difference visits to the researcher in replicable in future

To ensure reliability, the researcher pre-tested the instruments to check the accuracy of perception. The quality of the research instruments was also assured by the advice received from the data analysis expert at Bank of Uganda at the time of the research instrument design and the degree of truthfulness was also measured by the use of face validity where by the researcher made conclusions that what was

intended to be measured has been successfully measured.

3.6 Research procedure

Permission to conduct the research was obtained from relevant authorities for example obtaining introductory letter from the Faculty of Business Administration and Management and making time appointment with Management of Bank of Uganda;. The data was collected, edited and validated by the researcher.

3.7 Data analysis and presentation

In the analysis, the instruments that were used yielded both quantitative and qualitative data, after the researcher had read all the published relevant data concerning inflation in Uganda., raw data was cleaned, sorted and condensed into systematically comparable data, the quantitative and qualitative data were analyzed as seen below**;**

3.7.1 Quantitative data

In analysis of quantitative data, the data collected was analyzed using statistical analysis tools such as the Microsoft excel for coming up with bar graphs that were used to come up with tabulated percentages of the data.

The data collected after analysis would be compared to the information in the literature review or secondary data so as to find the determinant of inflation in Uganda.

3.7.2 Qualitative data

In analysis of qualitative data in the three objectives of the study, the researcher used content analysis, where each piece of work was read through thoroughly to identify themes where it belongs and each expression and statements that are relevant in the study was picked and best suit in its objective.

3:8: Ethical considerations

To maintain ethical standards during the course of the study, the researcher adhered to the following ethical principles:

First, the researcher sought permission from BOU to carry out the research by submitting the letter of introduction from Uganda Martyrs University, which requested the company for permission to carry out the study, permission was granted by management of BOU for the study to be conducted.

Ethical problems can be eliminated by careful planning and constant vigilance. The goal of ethics in research is to ensure that no one is harmed or suffers consequences from research activities. Before the study is conducted, permission will be sought from various heads of institutions.

3.9 Limitations of the study

The researcher faced the problem of distorted and unclear information. This was witnessed in consumer price indexes that were in monthly format and it forced the researcher to call Bank of Uganda for guidelines on how to access their information

The website for B.O.U was always blocked by the University during week days from morning till afternoon at around 3:00pm.

The transportation and other related costs to Kampala to meet the supervisor that were worth 150,000 in the course of the research period.

3:11 Conclusion

This chapter presents the method that was used in collecting data, the sample size, the design tools and the tools which enabled data collection.

CHAPTER FOUR

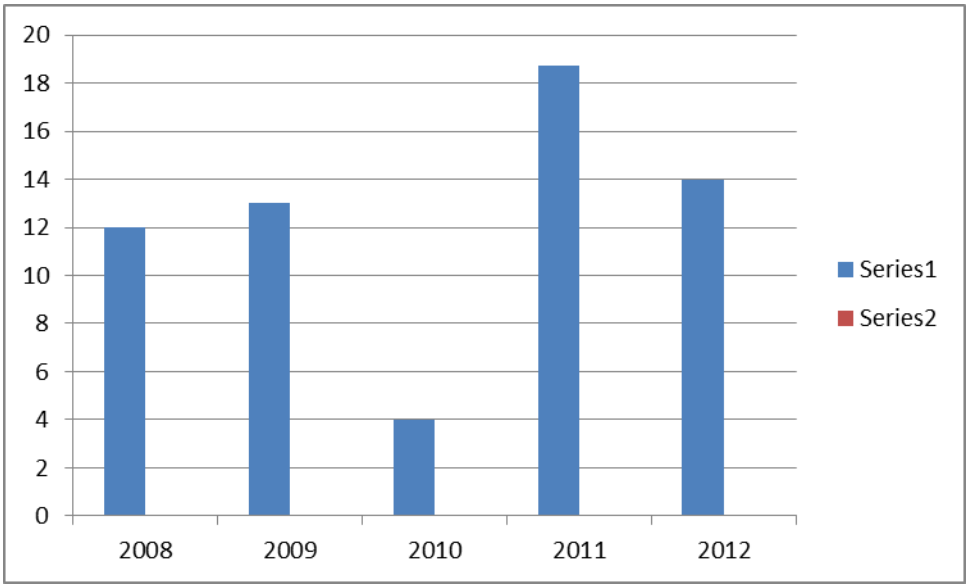
PRESENTATION OF RESULTS, INTERPRETATION AND DISCUSSION OF FINDINGS

4.0 Introduction

This chapter four of the research report presents data collected using the questionnaire and the research interview guide of the case study described in chapter 3. The findings in this chapter were also arrived at by analyzing and interpreting the available data using Microsoft Excel research package. All the responses are presented in terms of frequencies/observations and the measures of central tendency (Mean) and measures of dispersion (Standard Deviation).

During the research study, the hypothesis and each of the research questions were treated separately. The statistical data from the quantitative part of the research tools was supported by the qualitative data of the study. Generally, it should be noted that the research target was composed of 5 observations and 8 research variables

Figure 3: Chart showing the inflation rates against years



Source: B.O.U

Inflation was high mainly in 2011 where it reached a maximum of 30.5% in October and the following were the drivers of inflation in Uganda.

Kabundi (2012) demonstrates that both domestic and foreign factors were important determinants of inflation in Uganda. Rise in world food prices and energy prices had direct effect on domestic prices, weather related factors like drought

Agricultural supply shocks acted as constraints to agricultural production together with high demand both domestically and from neighboring countries push domestic food prices hence create rise in overall price level as depicted by highest percentage of food price share in CPI.

Uganda experienced a period of food shortage due to adverse weather conditions hence shortage of food supply that caused increase in domestic food prices.

The (IMF) 2011, identified energy prices like fuel as a major determinant of inflation dynamic in Uganda. The rise in petrol prices had to put pressure on fuel prices this was passed on to consumer which resulted into high prices.

4.2 Finding on Variable one. Food prices

Table 4. 1: Food Prices

Variable	Observation	Mean	Standard Deviation	Minimum	Maximum
Food prices	5	182.72	44.36	129.6	237.6

Source: Secondary Research Data

The table 1.1 above presents the research findings on food prices for 5 years and ranking them against minimum and maximum mean and S.D. The research results in the table above reveal that based on the number of observations; the arithmetic mean from the research variable (food prices) 182.72 was towards maximum hence positive, implying fluctuation in prices and this can be supported by S.D of 44.36 showing variation in prices

Froyen (2003), a negative supply shock will raise prices, due to certain condition, landslides in far areas like Bushenyi, mbarara where matooke is grown and by the time they are delivered its late to increase aggregate supply to meet aggregate demand hence increase in prices. According to (Uganda Radio Network) "Moses Sserunjogi, the Kyebe sub county LC3 Chairman, says that the floods are affecting business at Kasensero landing site. He explains that because most of the goods and services are gotten from Masaka, Rakai, and Kyotera, traders at Kasensero are running short of supplies which might force them to hike prices". Froyen and Waud (1983), points out that a positive supply shock characterised by an increase in supply lowers prices, during season of ripping of matooke due to dry season hence lowers prices due to abundant relative supply. In addition, seasonal crops like pineapple, mangoes have season of yields where

there is abundant increase.

Froyen (2003), factor inputs like capital and labour and increase in their prices, increases costs of production. In season of drought, irrigation becomes an option that comes at an extra cost hence seasonal changes increases on the burden of farmers like during February it is always sunny which influences increase in prices of agricultural products.

In addition, decrease in aggregate supply of factor inputs leads into inflationary rate. Foods that use labour intensive methods like initial stages of sugar production, cutting of sugar canes in-case human labour is employed instead of technology hence reduction in production.

Froyen (2003)positive supply shock could be advance in technology, the exploitation of research and technology and nurturing innovation like use of trucks to dig large acres of land uses shorter period of time compared to use of hands. Revamping of irrigation scheme can be employed especially during dry season.

Menzie et al (2007) points out that a positive demand shock often increases demand whereas a negative demand shock decreases demand and both have effect on prices. In 2011, the increase in demand for scarce sugar supply influenced the business men to take advantage of it y hiking prices for sugar.

Coleman (2007), the existence of excess demand propagates inflationary conditions, during 2012, the high demand for sugar with limited supply influenced the available suppliers to hike the prices for sugar and seasonal crops, most fruits and vegetables are grown all under rain fed conditions and this seasonality in production oftenly affects supply.

Laytton (2009), shortages of goods as consumers begin hoarding with expectation of future price increase. In 2011,it is suspected that some “unscrupulous” politicians and businesses speculatively were hoarding large quantities of sugar so they can sell it at high prices.

4.3 Findings on Variable Two: Beverages and Tobacco

The following were the finding on beverages and tobacco as a determinant of inflation

Table 4. 2: Beverages and Tobacco

Variable	Observation	Mean	Standard Deviation	Minimum	Maximum
Beverages and Tobacco	5	140.96	25.79	113.7	179.1

Source: Secondary Research Data

The table 1.2 above presents the research findings on beverages and tobacco as determinants for inflation. The prices for beverage and cotton are for 5 years and were ranked against minimum and maximum mean, the research results in the table above reveal that based on the number of observations; the arithmetic mean from the research variable (beverage and tobacco) 140.96, which is towards maximum, positive acceptance that there is fluctuation in prices however the S.D of 25.79 hence slight variation in prices.

(Coleman,2007),existence of excess demand propagates inflationary conditions, demand for sodas, beers normally increases above normal during festive seasons like Christmas, beer costs. Retailers usually take advantage of the festive season to exploit the consumers. A beer that used to be worth 2,500 shillings prior to festive season is 3,000 shillings during the festive season due to high aggregate demand.

Though in disagreement, discounts are usually offered on the bulk buyers like those who buy crates instead of purchasing limited number of bottles. The retailers who purchase from whole sellers mostly benefit from such discounts since they in turn sell to other consumers at an extra

cost.

(Opolot, 2007), an increase in aggregate demand could result from higher consumer spending, the consumers have high purchasing power of beverages like beer, soda in turn increases on the aggregate demand though increased supply may not be necessarily driven by reduced interest rates due to high liquidity preference which eases access to money hence increasing on aggregate demand in turn increasing prices.

Opolot (2007), though the demand for processed beverage is lower compared to un processed alcohol hence the shortage is rare.

Koptis (2008), inflation is caused by substantial increase in the cost of importation of goods and services, cost of raw materials like sorghum for production of beer is imported hence increase in production costs. soda, "consecrates" used to mix the soda are imported from outside countries.

4.4 Findings on Variable Three: Clothing and Footwear

The following were the finding on Clothing and Footwear as a determinant of inflation

Table 4. 3: Clothing and Footwear

Variable	Observation	Mean	Standard Deviation	Minimum	Maximum
Clothing and Footwear	5	145.5	31.31	116.5	191.1

Source: Secondary Research Data (2014)

The table 1.3 above presents the research findings on beverages and tobacco as determinants for inflation. The prices for Clothing and footwear are for 5 years and were ranked against minimum and maximum mean, the research results in the table above reveal that based on the number of

observations; the arithmetic mean for clothing and footwear was 145.5, which is towards maximum mean of 191.1, positive acceptance that there is fluctuation in prices however the S.D of 31.31 hence slight variation in prices.

Gauthier & Tessier (2002), there are negative and positive supply shocks that lead to exchange rate appreciation and depreciation that affect prices; most clothing and foot wear is imported from mainly china hence depreciation of Ugandan shillings increases on importation costs, shifting the burden to financial through high prices and also limits the number of goods to enter Uganda hence limited aggregate supply to meet aggregate demand.

Boyes & Melvin(2007), demand pull is a product of increased spending in an economy producing at maximum capacity, clothing and footwear is imported from foreign countries hence Uganda does not produce clothes thus their production would be difficult to increase in the short run due to excess demand, even though the few who produce are purchased by few rich people hence there is always abundant supply like fashion designers.

Boyes & Melvin(2007), significant increase in the level of indirect taxes will raise domestic prices, most Ugandans traders due to increase in taxes by the government , shift the burden to the final consumer through imposition of higher prices on the products.

4.5 Findings on Variable Four: Fuel, Rent and Utilities

The following were the finding on fuel, rent and utilities as a determinant of inflation

Table 4. 4: Fuel, Rent and Utilities

Variable	Observation	Mean	Standard Deviation	Maximum	Minimum
Fuel, Rent and Utilities	5	165.36	31.24	136.5	214.2

Source: Secondary Research Data

The table 1.4 above presents the research findings on prices for Fuel, Rent and Utilities for 5 years and ranking them against minimum and maximum mean and S.D. The research results in the table above reveal that based on the number of observations; the arithmetic mean for Fuel, Rent and Utilities was 165.36 towards maximum of 214.2 hence positive, implying fluctuation in prices and this can be supported by S.D of 31.24 showing slight variation in prices.

(Opolot, 2007), inflation is bought by firms who are investing under expectations of future economic growth. Ugandan business men have constructed arcades with expectation of earning profits due to high demand, though most of them have abundant rooms which influences them to hike rent for the available in order to reduce on the gap left by the abundant rooms.

In agreement, with Keynes theory, additional demand and spending increases the only lead to inflationary tendencies because there is need to be limited supply for the sudden price increase, increase in fuel prices from shs. 2500 to shs. 2900 is mostly due to limited supply because there will always be high demand fuel for its importance in transport, cooking, lighting.

Cost push , in disagreement, inflation is attributed to profit push hence price increase created by suppliers to increase their profit margin ..hostel fees are increased under the disguise of increase

in water, electricity fee yet the shs.50 increase cannot cover-up the tax increase hence its used to cater for other interests like excessive profits.

Koptis(2008), price increase is due to substantial increase in the cost of importation of goods and services where no suitable alternative is available, Uganda imports oil and increase in importation costs, Uganda is non oil producing country hence it only imports oil accompanied with importation costs which influences the supplier to shift the burden to the final consumer through hiking prices.

4.6 Findings on Variable Five: House Hold and Personal Items

The following were the finding on house hold and personal items as determinants of inflation

Table 4. 5: Household

Variable	Observation	Mean	Standard Deviation	Minimum	Maximum
Fuel, Rent and Utilities	5	160.9	34.43	126.4	210.3

Source: Secondary Research Data

The table 1.5 above presents the research findings on prices for house hold items for 5 years and ranking them against minimum and maximum mean and S.D. The research results in the table above reveal that based on the number of observations; the arithmetic mean for households items was 160.9 towards maximum of 210.3 hence positive, implying fluctuation in prices and this can be supported by S.D of 34.43 showing variation in prices.

Roger and Froyen(2003), increase in supply will lower price, in disagreement, household items are products that can last for long period of time hence they can be kept and sold at any time like

furniture even though the supply of furniture is high, firms will always stick to their standard prices or even increase depending on the market prices. Prices can only reduce slightly in case they want to dispose off old stock in order to create space for new stock and this is usually through discounts like Hwan sung furniture.

Froyen (2003), increase in prices of factor inputs like labour, raw materials increases the costs of production, most household items are imported into Uganda hence the notion of increase in cost of production does not affect the household items, most are imported from china like furniture. Though the ones produced locally are on small scale which employ mostly family members of about two people and are not on payroll.

Froyen (2003), decrease in aggregate supply of factor inputs increases prices, the scarcity of timber, nearly drove carpenters out of business in 2011. The acquisition of it comes at an extra cost hence the burden will be shifted to the final buyer of the furniture and some pay in installments that are accompanied with interests explaining the high prices.

(Opolot, 2012), increase in aggregate demand could result from higher consumer spending because of money supply, house hold items like furniture are mostly demanded by new entrants like university students due to ease in accessibility of money.

Keynesian theory, increase in disposable income contribute to rise in income expenditure hence increase in prices does not explain the price increase of household items because they are mostly bought once for long term use hence increase in disposable income would influence one to purchase items that are already at home.

4.7 Findings on Variable Six: Transport and Communication

The following were the finding on transport and Communication, as determinants of inflation

Table 4. 6: Transport and Communication

Variable	Observation	Mean	Standard Deviation	Minimum	Maximum
Transport and Communication	5	124.38	5.9	117.6	133.7

Source: Secondary Research Data

The tables 1.6 above presents the research findings on prices for transport and communication items for 5 years and ranking them against minimum and maximum mean and S.D. The research results in the table above reveal that based on the number of observations; the arithmetic mean for transport and communication was 124.38 towards maximum of 133.7 hence positive, implying fluctuations in prices; however this can be supported by S.D of 5.9 showing slight variation in prices.

(Koptis, 2008), substantial increase in importation of goods fuels price increase though regardless of the importation increase, the transport charges are fixed for different destinations hence no player can increase charges on grounds of importation costs. On the other hand, private hires have the freedom to set their charges hence they can hike in-order to recover money spent on importing the vehicles though most public and private means buy already imported vehicles from dealers like Toyota, spear motors thus do-not incur such costs and increase in transport fares would-not be particularly because of importation costs hence its only for ploughing back the costs incurred in ensuring the start of the business like registration, purchase costs.

(Coleman, 2007), the existence of excess demand propagates inflationary tendencies, hiking transport fares mostly during the festive season, most people travel to villages which more aggregate demand compared to aggregate supply and people who use public means are affected most. Though the seasonal increase cannot be a basis to give general view of the price increase of transport.

Milton Friedman's (1956) argument that changes in the money stock directly affects changes in the price level is ineffective because even-though people have a lot of money. The transport fares will not be affected because they are usually standardized. In addition to that transport fares may vary due to other factors other than changes in money stock like weather conditions, heavy rains cut off at least one kilometer of the road and cause massive flooding cutting off travelers from different areas which can influence the drivers to hike transport fares.

4.8 Findings on Variable Seven: Education

The following were the finding on education as determinants of inflation

Table 4. 7: Education

Variable	**Observation**	**Mean**	**Standard Deviation**	**Minimum**	**Maximum**
Education	5	134.96	19.21	114.3	164.1

Source: Secondary Research Data

The tables 1.7, above presents the research findings on prices for education for 5 years and ranking them against minimum and maximum mean and S.D. The research results in the table above reveal that based on the number of observations; the arithmetic mean for education was134.96 which is towards maximum of 164.1 hence positive, implying fluctuations in prices

however this can be supported by S.D of 19.21 showing slight variation in prices.

(Coleman,2007), existence of excess demand propagates inflationary conditions; the high demand for some educational institutions due to excessive demand influences them to hike tuition or school fees though this is also driven by greed for more facilities to accommodate excessive demand in turn securing more profits.

Demand does not clearly explain price hike because population for student is almost the same both continuing and newly joined through the provision of better facilities like teachers, classrooms, usually depict the increase in the education fares.

Froyen (2003), increase in the prices of factor inputs like raw materials increases their cost of production does not explain hike of fares, meals. Posho is relatively cheap yet they buy in bulk from millers and usually receive discount hence their increase in education fares on grounds of increase in food costs since the discount on bulk purchase neutralizes the effect increase in prices.

4.2 Findings on Variable Eight: Health and entertainment

The following were the finding on health as a determinant of inflation

Table 4. 8: Health and entertainment

Variable	Observation	Mean	Standard Deviation	Minimum	Maximum
Health	5	148.36	29.86	114.8	190.6

Source: Secondary Research Data

The tables 1.8 above presents the research findings on prices for health and entertainment items for 5 years and ranking them against minimum and maximum mean and S.D. The research results in the table above reveal that based on the number of observations; the arithmetic mean for health and entertainment was 148.36 which is towards maximum of 190.6 hence positive, implying fluctuation in prices, however this can be supported by S.D 29.86 of showing slight variation in prices.

Fischer(2003), negative supply shock hence sudden supply decrease in goods and services will raise prices and sift aggregate supply curve. Limited supply of entertainment to people and monopolists will use it as a stepping stone for the high prices charged compared to the minor players. DSTVs' ability to own rights of televising premier league games charge higher subscription fees compared to other players like star times, star tv putting into consideration the high aggregate demand for foreign leagues, mostly premier league.

Grauthier& Tessier (2002), positive and negative supply shocks lead to exchange rate appreciation and depreciation which can fuel price increase. Entertainment services are paid basing on the foreign currency hence endup paying intimes when the ugandan shilling is weak. Subscribers of DSTV paid more when the shilling was worth 2500 shillings compared to days it was worth 1800 shillings.

Froyen (2003), increase in the price of factor input, increase in costs of production, private health facilities incur costs like wages for doctors, electricity, drugs. Increase in those costs like wages depending on the time rate, electricity for running medical machines are absorbed through high medical fees like IHK, though for public health facilities barely feel the pressure for increase in costs of production because the staff and expenses are usually catered for by the government like Mulago are catered for in the budget.

In addition to the above, some drugs are offered by the international organization like World Health Organizations, National Drug Authority but due to desire for profits, private health centers sell them expensively this triggers price increase due to absence of standard prices and are usually accessed by doctors at public hospitals to their private health clinics. Some drugs are accessed through medical stores where prices are standard but are sold expensively.

4.3 Conclusion

Inflation is still a major macroeconomic problem that has profoundly influenced the global economy. Attempts to control this menace using the traditional monetary and fiscal policies have somewhat provided a lasting solution. For that reason, the knowledge of the determinants of inflation in Uganda is the necessary prerequisite to evolving a long term solution. Consequently, there is a need to design policies that will enhance the reduction of the general price level but at the same time increase productivity for goods and services.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction.

This chapter presents the summary discussions, conclusion and recommendations of the findings. The summary focuses on the findings in relation to objectives of the study that it intends to achieve, the summary is followed by the conclusion which is also based on the findings of the study, the recommendations on how to curb inflation in Uganda which is also based on conclusion and lastly the areas of further research were also identified taking into consideration the broad nature of this particular study.

5.1 summaries of the findings

5.1.1 Examine trend of inflation of selected products in Uganda

In summary, there were prices increase among different selected products basing on the mean and S.D though food prices depicted highest variation in prices compared to other selected products with comparison to their mean of 182.72 and S.D of 44.36 while Transport and communication had the least variation in prices basing on their mean and S.D of 124.38 and 5.9 respectively.

5.1.2 Explanation for the trend of inflation of selected products in Uganda

In summary, there were prices increase among different selected products basing on the mean and S.D though food prices depicted highest variation in prices compared to other selected products with comparison to their mean of 182.72 and S.D of 44.36 due to: a negative supply shock will raise prices, due to certain conditions like drought that limit supply compared to aggregate demand, positive demand shock often increases demand that influences the increase in food prices. While Transport and communication had the least variation in prices basing on their mean and S.D of 124.38 and 5.9 respectively due to; fixation of transport charges for different destinations hence no excessive fare increase.

5.1.3 Policy intervention to manage inflation in Uganda

Restrictive monetary policies like increase in interest rates by B.O.U from to reduced on the purchasing power of consumers due to limited money supply hence this reduced on aggregate demand compared to aggregate supply.

Fiscal policy like significant increase in the level of indirect and direct taxes will reduce on the disposable income of consumers that increases aggregate demand compared limited aggregate supply.

5.2 Conclusion

The variation in prices was mostly high in food items and low in transport and communication basing on means and Standard Deviations as shown in tables 4.1 and 4.6.

The variation in prices was mostly high in food prices, this might have been due to food being a basic need knowing regardless of its increase in prices, people will continuously demand for it compared to the variations in transport and communication fares which cannot be easily increases because they usually fixed or increase in festive seasons like Christmas.

Policies were effective in curbing inflation. Monetary policy, increase in interest rates by B.O.U followed by other commercial banks reduced on the borrowing that could have increased production to cater for the increase in aggregate demand enabled to reduce on inflation experienced in 2011 compared to 2012. Fiscal policy of taxation that reduced on purchasing power of consumers hence reduction of aggregate demand compared to aggregate supply.

5:3 Recommendations

Improvement of infrastructures; Infrastructures like roads, will stimulate production by attracting potential investors hence increase in production of food to meet the high demand. Good infrastructures will ease the transportation of food to rural areas hence will reduce on the exploitation of retailers hiking prices on grounds of scarcity of food.

Increasing on the number of exports; this can be achieved through the government encouraging production of more commodities for exportation purposes through reduction of taxes on exports and reducing on the number of imports. The reduction on the of imports implies few goods are affected by depreciation of shillings that results into the traders shifting the burden to the final consumer by increasing taxes.

Adaptation of contractionary fiscal policy. The fiscal policy set by the government should aim at reducing consumer spending and this can be achieved by setting high interest rates for other commercial banks, increased interest rates increase the cost of borrowing, discouraging consumers from borrowing and spending. Increased interest rates would encourage Ugandans to save more money and use for investment purposes that would increase on the volume of exports.

Reducing on interest rates on agricultural loans and increasing their loan repayment period; in

order to encourage more Ugandans to engage in agricultural related activities aimed at increasing food supply to meet high aggregate demand hence stabilization of prices due to abundance supply of food. This also avails more time for farmers to concentrate on production instead of paying loans due to favorable loan repayment period.

Adaptation of supply side policies like privatization Supply side policies enable to ensure long term productivity though they need to be adapted to reduce future sudden increases in the inflation rate because they have long term effects. This would enable presence of potential suppliers to meet the aggregate demand hence reducing inflationary pressure.

5.4 Area for further studies.

Introduction of minimum wage for employees and its impact on production and purchasing power.

The effectiveness of monetary policies on micro finance institution. This is due to their activities are not effectively monitored by B.O.U

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