

**EXCHANGE RATE AND GROSS DOMESTIC PRODUCT OF UGANDA 1990-
2010.**

A Thesis

Presented to the School of
Postgraduate Studies and Research
Kampala International University
Kampala, Uganda

In Partial Fulfillment of the Requirements for the Degree
Master of Arts in economics

By:

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DECLARATION A

"This thesis is my original work and has not been presented for a Degree or any other academic award in any University or Institution of Learning".

SENTEROGO Simon

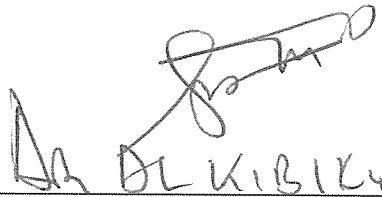
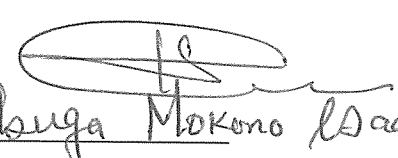
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DECLARATION B

"I/we confirm that the work reported in this thesis was carried out by the candidate under my/our supervision".

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APPROVAL SHEET

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DEDICATION

I dedicate this work to my lovely father and mother Mr. Kato Moses, Namaganda m. and my grandfather yekko kajura may God bless you.

ACKNOWLEDGEMENT

I owe a lot of appreciation to God who has given me the strength and courage to undertake this research.

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Acronym

GDP	:	Gross Domestic Product
GNP	:	Gross National Product
UBOS	:	Uganda Bureau of Statistics
MFPED:		Ministry of Finance Planning and Economic Development
ER:		Exchange rate
IFEM:		International Foreign Exchange Market
IMF:		International monetary fund
VAT:		Value Added Tax

ABSTRACT

The objective of this study was to investigate the effects of exchange rate on gross domestic product in Uganda from 1990 to 2010. The factors investigated upon included; to establish the trend and growth rate of exchange rates in Uganda 1990-2010. To examine the trend and growth rate of GDP in Uganda between 1990-2010. To find out the relationship between changes in the exchange rate and Uganda's GDP between 1990-2010. The researcher used regression analysis to determine the relationship between exchange rate and the level of GDP. Analysis was based on HO: that states that there is no significant relationship between exchange rate and GDP. Computer package like STATA was used in estimation of the regression models. The study was based on absorption theory. The findings of the study were as follows: exchange rate has been increasing by 620.8 shillings. GDP has been slightly increasing by 0.012 million shillings. The depreciation of Exchange Rate favors the growth in Gross Domestic Product of Uganda. $R^2 = 0.19$ and this implies that Exchange rate explains 19% of the variation in GDP. Since exchange rate explains only 19% of the variation GDP, it means that there are other determinants of GDP that explains remaining 81%. R-value was -0.4377 and this signifies that there is a negative correlation between exchange rate and GDP. From the model specification, the gradient was -3.9956 which means that, a unit increase in exchange rate influences GDP by - 0.39956. Conclusions. Exchange rate fluctuations affect the general GDP level in Uganda. Therefore, whenever there is fluctuation or exchange rate volatility, there will also be fluctuations of output. This discourages investors, make planning and economic forecasting difficult. Therefore, in order to encourage investors, and to promote people's welfare in Uganda, there is a need to reduce exchange rate fluctuations so as to allow relative price stability in the country. Recommendations from the study were; need to increase Government revenue and reduce the deficit budget to stabilize the exchange rate, increased foreign exchange inflow and reduce its outflow through increased exports and reduction of repatriation of profits by foreigners.

CHAPTER ONE

THE PROBLEM AND ITS SCOPE

Background of the study

Globally it is really true that exchange rates are connected with global current account and imbalances associated with all kinds of exchange rate regimes. The exchange rate is a crucial variable linking a nation's domestic economy to the international market. The U.S dollar weakened (depreciated) against other international currencies in 1980s as a result of low interest rates in the U.S and investor concerns about the size of the U.S current account deficit and this affected its economic growth. Spain has a large deficit while the Netherlands has a surplus. Yet both have a fixed exchange rate to the Euro, they are both part of the Euro zone. Of course, the Euro itself floats relative to the principal non-Euro currencies Corden (1986).

In the 1980s the US current account deficit and the Japanese surplus were the main international imbalances, and Japan certainly had to suffer continuous criticism from the United States. Now, again, Japan is one of the major surplus countries and, as usual, the United States is the major deficit country. Yet both the United States and Japan have floating rate regimes in the case of Japan there is only occasional intervention. Thus a floating rate regime between them is obviously no inhibition to a current account imbalance Corden (1986).

The Middle East and North Africa region has not followed the general trend worldwide in their choice of exchange rate. Although over the past decades, countries have progressively adopted more flexible exchange rate regimes, the majority of the economies in the Middle East and North Africa continue to maintain the fixed exchange rate regimes. While about 65% of economies were operating under the fixed exchange rate regimes in 1974 Corden (1986).

Since the 1973 collapse of the Britton Woods arrangement, the larger countries such as the United States, Japan, and Germany had floated their currencies in the world market, small countries have fixed their domestic currencies to the value of one of the major currencies, and medium-sized countries have pursued an intermediate approach. With the advent of the European Union, EU currencies were linked to the German mark and replaced by the free floating euro. Following the failure of intermediate-style regimes in Asia, Russia, Brazil and Mexico, however, such regimes, which attempt to capture the advantages of both extremes, have fallen into general disfavor, with economists recommending either fully fixing or floating a currency. One analyst suggests that "anything in between fixed and floating is too dangerous (IMF 1996).

The exchange rate is a crucial variable linking a nation's domestic economy to the international market. Thus choice of an exchange rate regime is a central component in the economic policy of developing countries and a key factor affecting economic growth historically most developing nations have employed strict exchange rate controls and heavy protection of domestic industry-policies now thought to be at odds with sustainable and desirable rates of economic growth. By contrast, many East Asian nations maintained exchange rate regimes designed to achieve an attractive climate for exports and an outer-oriented development strategy. The result has been rapid and consistent economic growth over the past few decades. *Changes in Exchange Rates in Rapidly Developing Countries* explores the impact of such diverse exchange control regimes in both historical and regional contexts, focusing particular attention on East Asia Wokadala (2007).

Prior to the failure of the East African Currency Board, Uganda used other countries' currency. Uganda began issuing its own currency in 1966 through the Bank of Uganda (BOU 1996).

Beginning from the late 1980s, Uganda started to implement a comprehensive program of macroeconomic adjustment and structural reforms, which helped restore macroeconomic stability and achieve economic growth. Annual GDP growth rate averaged 5.1 percent during the ten-year period which ended 2000, resulting into an increase in per capita GDP. This performance was much stronger than that of the 1970s and 1980s, as well as that of most African economies during the last decade (Musinguzi and Mutambi 2002)

Statement of the Problem

Economists and policy makers often refer to the exchange rate as a key macroeconomic variable. The exchange rate plays a critical role in transactions between open economies. The exchange rate is a crucial variable linking a nation's domestic economy to the international market. Thus choice of an exchange rate regime is a central component in the economic policy of developing countries and a key factor affecting economic growth.

Uganda's currency has weakened against the dollar so far this year as inflation surged to a 17-year high. The shilling is the world's third-worst performing currency, after Suriname's dollar and the Maldives rufiyaa, according to (BOU 2011).

Although, some studies have been made on the effects of Exchange Rate on Non-traditional exports of Uganda like Flowers (Kihangire 2005), The Ugandan foreign exchange market (sebudde and Rachel2003) and little effort has been made to assess the effects of Exchange Rate on Uganda's Gross Domestic Product. This study intends to establish whether the fluctuations in Uganda's Gross Domestic Product arise due to the changes in Exchange rate.

Purpose of the study

The main objective of the study was to examine the relation ship between the changes in the exchange rate on Uganda's economic growth (GDP).

Research objective

General objective

The overall objective was to assess the relation ship of Exchange Rate on Gross Domestic Product of Uganda between 1990-2010.

Specific Objectives

1. To establish the trend and growth rate of exchange rates in Uganda 1990-2010.
2. To examine the trend and growth rate of GDP in Uganda between 1990-2010.
3. To find out the relationship between changes in the exchange rate and Uganda's GDP between 1990-2010.

Research Questions

The study was guided by the following questions:

1. What is the level of exchange rate in Uganda?
2. How has the level of GDP in Uganda been between 1990-2010.
3. What is the relationship between changes in the exchange rate and Uganda's GDP between 1990-2010.

Hypothesis

H₀: There is no significant relationship between exchange rate and GDP.

Scope of the study

Geographical Scope

The study took place in Uganda, it is located in Eastern Africa, west of Kenya and east of the Democratic Republic of the Congo. It is in the heart of the Great Lakes region, and is surrounded by three of them, Lake Edward, Lake Albert, and Lake Victoria. While much of its border is lakeshore, Uganda is landlocked with no access to the sea.

Content Scope

The study examined the effect of exchange rate on Uganda's GDP between 1990-2010.

Theoretical Scope

The absorption theory was proved or disproved in this study. The depreciation of Exchange Rate favors the growth in Gross Domestic Product of Uganda.

Time Scope

The study covered the period between 1990-2010. The exchange rate in Uganda has been determined by the government before 1990's and there was considerable stability but after liberalization of the economy from 1990 on wards, the exchange rate was now determined by market forces and so there has been a great deal of fluctuations.

Significance of the Study

The findings of the study will benefited the following categories of people:

The results of the study will aid policy makers to design appropriate policies to stabilize the exchange rate.

The study will add to the stock of knowledge on the exchange rate effects on gross domestic product of Uganda.

The research findings are of great importance to other future researchers who use the findings of the study to embark on the related study as well as to find the gaps.

The government of Uganda based on the findings so as to make necessary adjustments to foster economic growth.

Operational Definitions of Key Terms

Exchange rate: Is the current market price for which one currency can be exchanged for another.

Appreciation: Is an increase in the external value of currency.

Depreciation: Is a decrease in the external value of a currency.

Gross domestic product: Is defined as the monetary value of all the finished goods and services produced within the country borders in a specific time period.

Consumption expenditure: refers to expenses incurred in consumption.

Investment expenditure: refers to the expenditure incurred either by an individual or a firm or the government for the creation of new capital assets like machinery, building.

Government expenditure: spending by a government, municipality or local authority. It covers things such as spending on health, education and social services, and is funded by tax revenue. It is one of the elements that make up aggregate expenditure.

Net exports: is the difference between the monetary value of exports and imports of output in an economy over a certain period. It is the relationship between a nation's imports and exports.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Concepts, Opinions, Ideas from Authors

There are several research findings and mechanisms regarding the relationship between the Exchange Rate and Gross Domestic Product.

Exchange rate

According to reed (1994) refers to the price of one currency in terms of another. An exchange is another key determinant of net exports. An exchange rate is the price of one nation's currency in terms of another. When exchange rates change, they affect the relative prices of exports and imports. As exchange rates change, exports change, imports change, and so too do net exports.

Floating exchange rate

According to Wilcox (1997) is when the government does not enter into foreign exchange markets at all, but leaves the determination of exchange rates totally up to currency traders. Under a floating exchange regime, the rate is determined by the supply and demand for a country's currency. Since the mid-1970s, the number of countries with flexible exchange rates has increased steadily; following the Asian crisis, many economists have suggested that the general failure of many Asian countries to defend their exchange rates necessitates a greater move toward floating. However, as with fixed exchange rates, floating exchange rates have both their positive and negative sides, and a floating exchange rate regime is not suitable for every country.

Fixed exchange rate

According to reed (1994) is when the government fixes the external value of their currency in relation to other currencies. A fixed exchange rate is where a country pegs its currency to that of another country or a mix of the currencies of other countries at a fixed rate, with the firm intention of maintaining that policy.

Fixed exchange rate regimes include the extreme cases where currency boards are introduced and another country's currency is adopted to replace the domestic currency adopting the U.S. dollar as legal tender is a specific case examined below. For a description of the various issues involved in moving toward certain types of fixed exchange rates.

Intermediate exchange rate systems

This compromises between fixed and floating exchange-rate regimes. They attempt to combine the stability of a fixed rate with the monetary policy independence of a floating regime. Generally, some fluctuation is allowed, within a predetermined band, against a currency or a basket of currencies, which is it self adjusted on a regular basis; depending on the degree of fixity desired, the target (or target band) can be allowed to move as well reed (1994).

Gross Domestic Product (GDP)

Gross domestic product is defined as the monetary value of all the finished goods and services produced within the country borders in a specific time period. This includes value of production of monetary and non-monetary goods and services within a country (UBOS 2006).

Consumption expenditure

According to Papazoglou (1999) Consumption expenditures are the expenditures by the household sector on final goods and services undertaken in a given time period. The official measure of consumption expenditures is termed personal consumption expenditures and is generally divided into three categories- durable goods, nondurable goods, and services. Consumption expenditures are the largest and most stable of the four expenditures. They are about 60 to 70 percent of aggregate expenditures. They play a critical role in the macro economy.

Investment expenditure

Investment expenditures are the expenditures by the business sector on final goods and services in particular, capital goods like factories and equipment undertaken in a given time period. The official measure of investment expenditures is termed gross private domestic investment and is divided into three categories nonresidential fixed investment, residential fixed investment, and changes in private inventories. Investment expenditures are the most volatile of the four expenditures. They are about 10 to 15 percent of aggregate expenditures. Investment is the primary source of business cycles Papazoglou (1999).

Government expenditure

Government expenditure are the expenditures by the government sector on final goods and services undertaken in a given time period. The official measure of government purchases is termed government consumption expenditures and gross investment, reflecting the fact that some government purchases are for consumption goods and some for capital investment. They are also about 10 to 15 percent of aggregate expenditures. Government purchases are a key fiscal policy for addressing business-cycle instability Papazoglou (1999).

Net export:

Net exports are exports minus imports. Arithmetically speaking, if exports exceed imports, then net exports are positive, and if imports exceed exports, the net exports are negative. Exports are goods and services produced by the domestic economy and purchased by the foreign sector. A few examples of exports can be seen in Shady Valley, especially those shipped to foreign countries for sale. Omni Motors has a substantial South American market for the XL GT 9000 Sports Coupe. The Quadra DG Computer Works sells a great number of computers to Northwest Queoldiolia. And Wacky Willy Stuffed Amigos are also quite popular throughout Asia. Imports: Imports are goods and services produced by the foreign sector and purchased by the domestic economy. In

other words, imports are goods bought from other countries. Shady Valley also provides examples of imports. A trip to the Mega Mart Food Emporium Super Center by Pollyanna Pumpnickel, a representative member of the household sector, is likely to end up with a number of imported commodities, including bananas and coffee Wilcox (1997).

Gross domestic product is defined as the monetary value of all the finished goods and services produced within the country borders in a specific time period. This includes value of production of monetary and non-monetary goods and services within a country, (UBOS, 2006). Since independence, the Ugandan economy has fluctuated widely (UBOS 2006).

Theoretical Perspectives

The absorption theory. This was proposed by Alexander and Johnson (1987). They stated that a depreciation of a currency increases production, switching expenditure from foreign to domestic goods or have other effects on domestic absorption relative to production. This means that the real costs of production as regards to exports will reduce while costs of importation will increase. Thus resources will be transferred to production of domestic goods hence a fall in their prices.

Related Studies

The World Bank (1990) concluded that over valued exchange rate in African countries led to dramatic collapse of the agricultural sectors. This is because over valued exchange rates tended to undermine overall export and agricultural performance hence affected gross domestic product.

According to Cottani (1990), two channels of transmission exist for the Exchange Rate to affect economic activities; these are the aggregate demand channel and the aggregate supply channel. The traditional view has it that the

Exchange Rate operates through the aggregate demand channel. This means that the depreciation of the Exchange Rate enhances the international competitiveness of domestic goods, boosts net exports and eventually enlarges.

According to Papazoglou (1999) Economic contraction occurs through the following channels. First, a nominal depreciation of the currency leads to a rise in general price level. This lowers aggregate demand, which, in turn, causes economic contraction. The second channel works through the income redistribution. It is argued that a real depreciation can help transfer income from individuals with a high marginal propensity to consume to those with a low marginal propensity.

This lowers aggregate demand, which, in turn, causes output to fall. The aggregate supply channel, on the other hand, purports that the depreciation of the real exchange rate increases the cost of production and helps redistribute income in favor of the rich. It is contended that a real depreciation can reduce aggregate supply. This is so because a real depreciation causes the cost of imported raw materials to go up. This reduces the importation of raw materials and thereby lowering the level of aggregate supply (Papazoglou 1999).

Hung (2002) in his study that Exchange Rate negatively affects output levels thus an increase in ER results in a decrease in output. He also found out that ER causes output only at 10% significance level. In his study, he also found out that ER accounted for 26.12% shocks in output after 5 quarters in Vietnam.

Pinar (2006) in his research on Output, the Exchange Rate and the Crises in Turkey using a multivariate analysis found out that, the shocks to ER are important in the variation of real GDP, but not the other way round. In addition, a positive shock to the spread between US 10-year and 3-month treasury rates indicated a real depreciation and an improvement of the balance, while it does not have much effect on real GDP. As before, there is not much response by ER

to a shock in real GDP but real GDP increases in response to an unexpected appreciation in the short term

Both (2006) stated that an overvalued ER typically undermines the competitiveness of the non-commodity export sector, which delays or prevents export diversification and industrialization. The management of the ER is mainly to allay the symptoms of the Dutch disease, such as deindustrialization or a failure to industrialize agriculture may also be similarly affected.

Uganda's GDP declined during the late 1970s to early 1980s with total investment declining along with it. Actually, the decline in investment preceded the decline in GDP by several years, as foreign ethnic groups, particularly the East African Indians, ceased to maintain their assets in Uganda. Fearing nationalization in general and expropriation in particular, private entrepreneurs avoided making any investment. From a normal value of approximately 14 per cent, investment as a percentage of GDP fell to half that value in 1975, and to even less than that for the succeeding six years. It was only in 1982 that investment increased again, but only to two-thirds of its former value (Kasekende 1996).

The Exchange Rate is one of the indicators of the International competitiveness of a country and is generally understood to mean various levels of relative price or costs expressed in a certain currency. In this respect, ER values above 100 signify a downward trend in the country's competitiveness relative to the base period, whereas ER below 100 means rising competitiveness of the country relative to the base period (Choudri and Khan 2004).

Exchange Rate has often been at the Centre of policy debate in developing countries on issues such as economic development, export promotion and also macroeconomic stabilisation. Defined as the relative price of Tradable to Non-Tradable, the ER is the pertinent relative price signal for inter-sectoral growth in the long run (Atingi and Sebudde 2000).

The Exchange Rate can be a policy tool to attain real targets. In particular the exchange rate should be devalued when a country's Current account needs to be improved. So the exchange rate policy may be important in stabilization program. Generally for developing countries, the choice is between a Real Anchor and a Nominal Anchor. The volatility as well as the misalignments may have important effects on the trade flows, direct investments and Output. Overvaluation may lead to the deterioration of the economic situation since it brings about resource shifts in favor of the non-tradable sectors which reduce the growth (Bouiyor and Rey 2005).

Although, some studies have been made on the effects of Exchange Rate on Non-traditional exports of Uganda like Flowers, Kihangire (2005), little effort has been made to assess the effects of Exchange Rate on Uganda's Gross Domestic Product.

Therefore, two different theoretical views have been put forward about how Exchange Rate affects output. The first view states that, a real appreciation of domestic currency lowers the cost of imported raw materials and thus leads to an expansion of real output Papazoglous (1999).while the traditional view states that a real appreciation lowers international competitiveness, which, in turn, causes net exports to fall and a fall in net exports, in turn, lowers the aggregate demand. These two conflicting theoretical views pose an empirical issue and call for an empirical test on a small developing economy like Uganda. This study intends to establish whether the fluctuations in Uganda's Gross Domestic Product arise due to the changes in Exchange rate.

CHAPTER THREE

METHODOLOGY

Research Design

The study used the cross sectional survey design. These helped the researcher to correlate the research variables which are exchange rate and GDP.

Research population

The researcher used annual records and reports that were got from various ministries such the ministry of finance, the ministry of economic planning and policy, bank of Uganda and the Uganda Bureau of Statistics (UBOS).

Sample Size

The researcher used annual records and reports about exchange rate and GDP from 1990-2010.

Sampling Strategies

The researcher used purposive sampling strategy as well as systematic random sampling technique in the process of data collection.

Research Instrument

The researcher used record sheets as research instrument in the process of data collection. These record sheets were structured by the researcher.

Data Gathering Procedures

In this part of the study, the collection of data was step by step, before, during and after the administration of the research instrument was described.

Before the administration of the research instrument (interview guide)

An introduction letter was obtained from the school of post graduate studies and research to help the researcher solicit approval to conduct the study from the respective ministries.

The researcher was accepted, the researcher provided a copy of the record sheet to the respective respondents of the selected ministries.

The respondents were explained about the study and were requested to sign the informed consent form

The researcher then selected assistants who assist him in the process of data collection, brief and orient them in order to be consistent in administering the record sheets.

During the administration of the research instrument (record sheets)

The respondent was requested to provide the required information which was both written and oral.

The researcher made sure that he got back the information within ten days from the date of distribution of the record sheets.

After the administration of the research instrument (record sheets)

On retrieval, the researcher cross checked whether the information given suits the research objectives. After the administration of the research instrument (record sheets) the data at hand was entered into the computer and statistically analyzed using the Stata Package.

Data Analysis

The researcher used line graph to establish the trend of exchange rates in Uganda 1990-2010.

The researcher used linear regression analysis to find out linear relationship between exchange rate and GDP.

The researcher used regression analysis to determine the relationship between exchange rate and the level of GDP.

Ethical Considerations

To ensure confidentiality of the information provided by the respondents and to ascertain the practice of ethics in this study, the researcher did the following;

1. Seek permission to conduct research from the selected ministries through presenting the transmittal letters to the respondents while ensuring them confidentiality.
2. Requested the respondents to sign in the informed consent form.
3. Acknowledged the authors quoted in the study through citations and referencing.
4. Presented findings in the generalized manner.

Limitations of the Study

Since the study time scope is wide, the needed data was scattered, the researcher had to rely on different sources.

The study was based on secondary data which data has got its own challenges such as; problems of retrieval, display of the author subjectivity, the researcher tried to overcome all these through relying on different publication and source.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

4.1 The trend of exchange rate in Uganda from 1990 to 2010

The exchange rate in Uganda has been determined by the government before 1990's as explained 1962 affixed exchange rate was introduced to reduce risks and un certainties in international transactions, 1980 a flexible exchange rate was ,in 1982 to 1984 dual exchange rate regime was introduced, in 1984 to 1986 weekly auction system was introduced, in 1987 to 1989 dual exchange rate was re introduced, 1989 to 1990 a flexible rate re-introduced and there was considerable stability but after liberalization of the economy from 1990 on wards, the exchange rate was now determined by market forces and so there has been a great deal of fluctuations Mukwaya (2000), points out that Exchange rate shifted from the fixed exchange rate to dual exchange rate and free floating regime in 1990.

In 1990, the government of Uganda liberalized the foreign exchange market that led to the introduction of foreign exchange bureaus, which to a large extent replaced the parallel "Kibanda" market. In view of this, foreign exchange policies were therefore geared towards unifying the two exchange rates namely the official and the bureau rates.

This resulted into high exchange rate volatility in Uganda between 1990, 1991, 1992 and 1993, which stood at 80 percent per annum Wokadala (2006).

But in November 1993, the government introduced the interbank for foreign exchange and this provided a more efficient and reliable mechanism for allocation of exchange market in 1994. But in 1994, 1995 and 1996 the government introduced the pegging policy and this stabilized the shilling against the USA dollar.

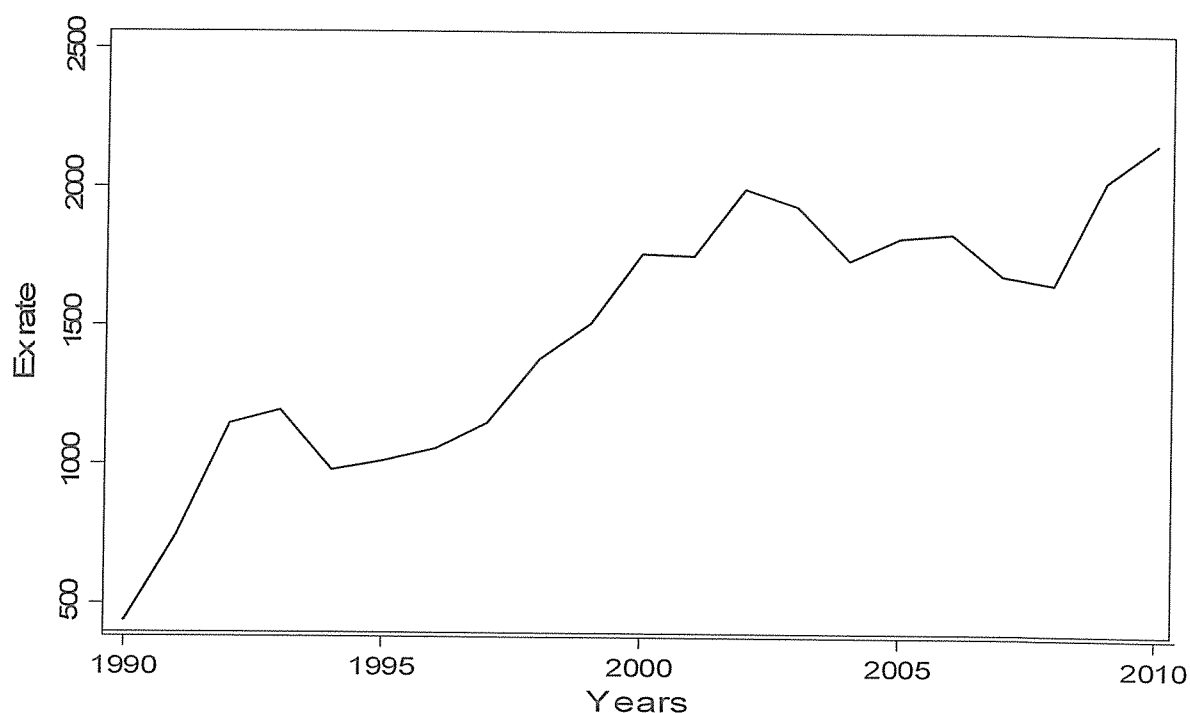
The shilling experienced depreciation pressures against the US dollar in 2004 with the average exchange rate depreciating by -0.11 percent from Shs. 1,737.69 in 2004 to Shs. 1,821.89 in 2005. Exchange Rate exhibited a depreciating trend. The developments in the foreign exchange market were largely driven by strong corporate sector demand for dollars, particularly from the oil companies, which was coupled with lower than anticipated inflows. Bank of Uganda (BoU) intervened in the market to smoothen volatilities.

The Uganda shilling has sustained steady appreciation against the US dollar since 2006/07. The shilling appreciated against the US\$ from 2006 to 2007. Following the strong intervention by the central bank, the shilling weakened in 2007. The Bank intervened to smoothen the high Levels of volatility that characterized the market in this period.

The shilling appreciated in 2008(1658.1). The strengthening of the shilling is due to the large foreign exchange inflows into the economy and the global weakening of the U.S. dollar. Foreign exchange inflows were due to favorable terms of trade and higher capital and current inflows. At the same time, the volume of trade in foreign exchange by the corporate sector reflected reduced demand especially in the period between 2007 and 2008. As a result, non-bank supply of foreign exchange in the Inter-bank Foreign Exchange Market (IFEM) exceeded demand by USA dollar 2008. However, Bank of Uganda's intervention in the foreign exchange market was minimal on a net basis because of the macro-economic challenges of managing high inflationary pressures and the appreciation (strengthening) of the shilling (BOU 2008). The exchange rate was less volatile during 2009 despite a steady appreciation of the shilling vis-à-vis the US Dollar in 2009, and then a steady depreciation for most of the second half of the year. Overall, the average exchange rate between the Uganda shilling and the US Dollar depreciated by about 0.06% during 2010. The Bank of Uganda

(BOU 2011) has attributed the fall in the shilling value to high demand for the dollar internationally due to the conversion of assets in Euros to dollars arising from the Euro debt crisis

4.1.1: A line graph showing the trend of exchange rate in Uganda from 1990 to 2010.



Exchange rate was regressed with time and the trend result were as follows;

$$Y = 149.2 + 620.8 (x)$$

This means that, on average exchange rate has been increasing by 620.8 shillings annually.

4.2.1: The trend of GDP in Uganda from 1990 – 2010.

Uganda has experienced un precedeted, rapid and un interrupted growth for the past two decades. This is remarkable achievement for a land locked country that is constrained by number factors.

In early 1990 to 1995(6.1,1.77,2.7,8.2,11.2) uganda experienced areasonable growth rate and this was attributed to services ,industry and improvement in agriculture. And by the the mid 1996 the economy experienced the high growth rate this was because of the use of improved methods of farming in agriculture sector ,good weather conditions which led to increased output in 1996.

From 1997, 1998 Uganda's average annual rate of economic growth started to slow down averaging 1.6% in per capita terms and much of this slow down is explained by sharply deteriorating terms of trade (World Bank 2007).

Annual GDP growth rate averaged 5.4% and 5.1% during 2000 and 2001 respectively this was as a result of an increase in per capita GDP. This performance was much stronger. Than that of the 1970s and 1980s, as well as that of most African economies during the last decade.

Annual GDP growth rate averaged 6.4 percent during 2003; this was as a result of limited structural transformation of the economy owing to growth.

During the financial year 2004, Uganda's economy registered a stronger growth of 6.8% compared to a growth rate of 6.4%2003. This was largely due to higher agricultural output brought about by timely and adequate rains for the food crop-planting season.

The shortfall in 2005(6.33%) was largely on account of a weak performance in VAT on both imports and domestically produced goods

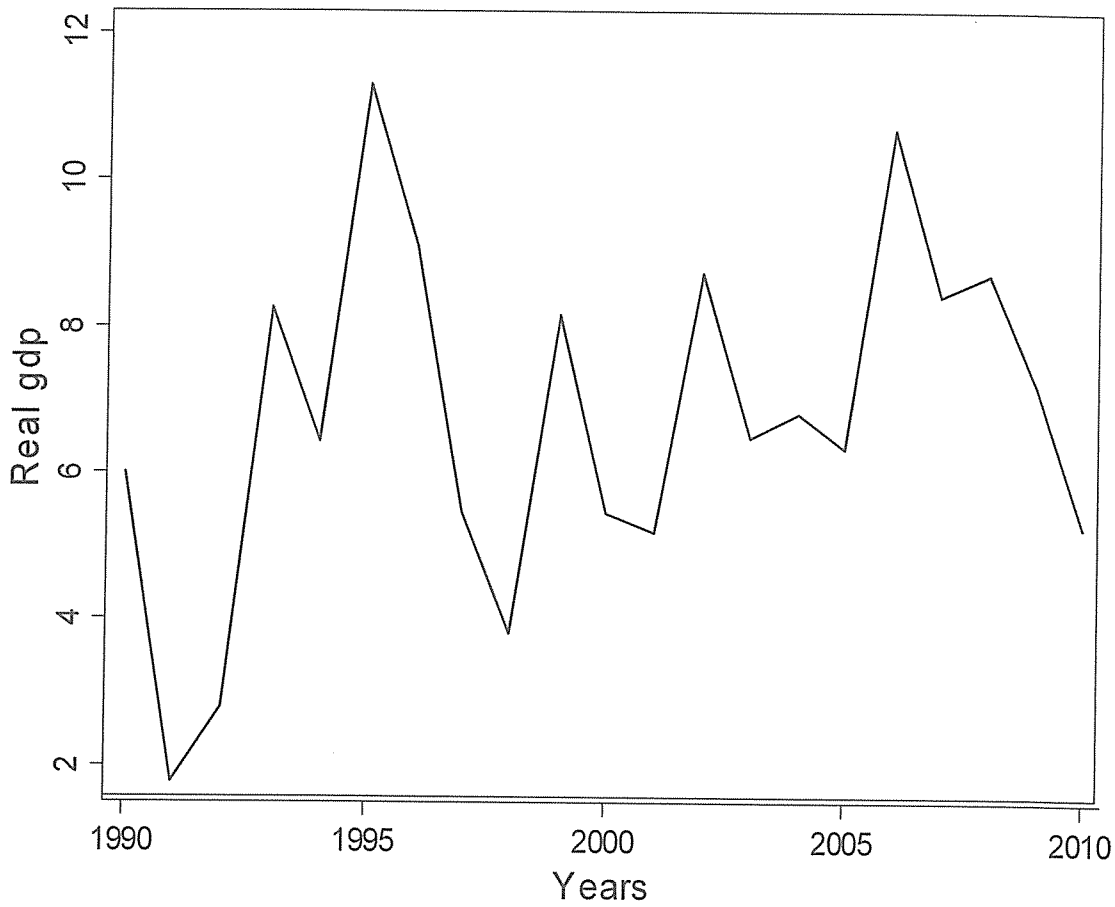
2006(10.68%) growth rate in Uganda was as result of high technology in production of both exports and imports.

2007(8.42%) growth rate in Uganda was as result of increasing number of firms that export and diversification in agriculture with in and out of agriculture.

In 2008 and 2009, the Export earnings fell from 2.9 billion US dollars (USD) in year 2008/09 to USD 2.8 billion in 2009/10 (BOU 2009).

The Ugandan economy recorded weaker growth of 5.2% in 2010 because of receding aggregate demand, mainly in private consumption, and weak external demand for traditional exports, in particular coffee. Growth in the year 2009/2010 was among the highest in the East African Community and all of Sub-Saharan Africa (World Economic Outlook, April 2010).

4.2.2 A line graph below shows the trend of the of GDP in Uganda from 1990 - 2010

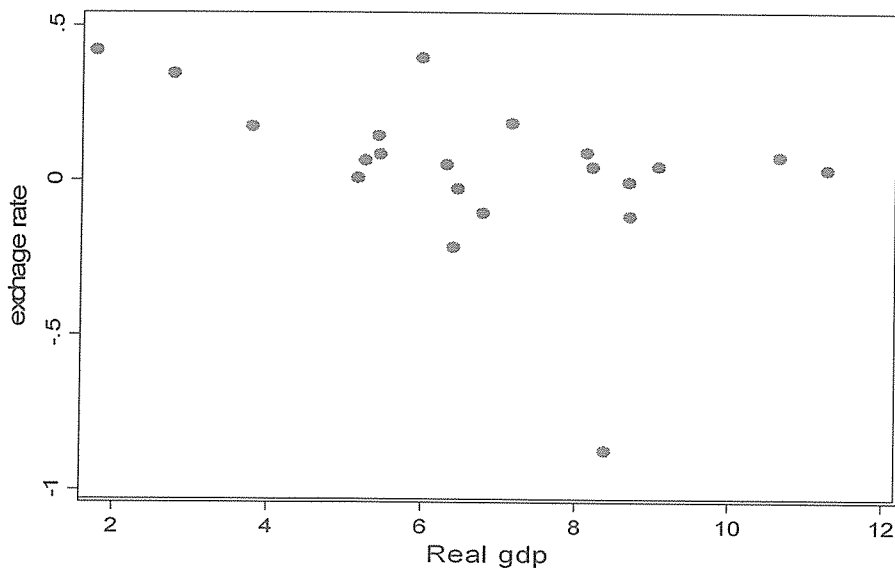


GDP was regressed with time and the trend results were as follows;

$$Y = 1982.4 + 0.012 (x)$$

This means that on average GDP has been slightly increasing by 0.012 billion shillings annually.

4.3.2 The scatter diagram showing the relationship between exchange rate and GDP in Uganda 1990 -2010.



The above scatter diagram portrays a negative relationship between exchange rate and gross domestic product in Uganda. According to watundu (2008), the depreciation of Exchange Rate does not favor the growth in Gross Domestic Product of Uganda thus depreciation of Exchange Rate has a contractionary effect on GDP. The findings of this study agree with watundu’s findings that Exchange Rate does not favor the growth in Gross Domestic Product of Uganda thus exchange rate has a negative effect on growth rate.

4.3.3: Regression results at 95% level of confidence.

Regressed variables	R-value	R ²	F-value	t-value	P-value	interpretation	Decision on H ₀
Exchange rate GDP	-0.4377	0.19	4.50	-2.12	0.047	There is a significant	H ₀ is rejected

Source; UBOS, BOU (2010).

From the table above, the $F(1, 19) = 4.50 > 4.38$ (critical F value) therefore, H_0 is rejected.

Basing on $t(1, 19) = -2.12 < 2.093$ (critical value) thus H_0 is accepted and therefore the alternative hypothesis/ H_A is accepted.

P-value = 0.047 < 0.05 therefore it is significant. This means that H_0 is rejected and therefore the alternative hypothesis/ H_A which states that, "there is a significant relationship between exchange rate and GDP" is rejected.

$R^2 = 0.19$ and this implies that Exchange rate explains 19% of the variation in GDP.

After data analysis the model specification was as follows;

$$Y = 6.9129 + -0.39956X$$

Where Y is dependent variable and X is the independent variable.

This means that keeping exchange rate constant the economy can grow by 6.9129. However, a unit increase in exchange rate influences GDP by -0.39956.

From this results R-value = -0.4377 and this signifies that there is a negative correlation between exchange rate and GDP.

The findings of the study are in agreement with watundu (2008) who found out that, the depreciation of Real Effective Exchange Rate does not favor the growth in Gross Domestic Product of Uganda thus depreciation of Real Exchange Rate has a negative effect on GDP.

CHAPTER FIVE

FINDINGS, CONCLUSIONS, RECOMMENDATIONS

5.1 FINDINGS OF THE STUDY

The objective of this study was to investigate the effects of exchange rate on gross domestic product in Uganda from 1990 to 2010. The factors investigated upon included the exchange rate and GDP. The researcher used regression analysis to determine the relationship between exchange rate and the level of GDP. The researcher used Pearson's linear correlation to determine the strength of the relationship between exchange rate and the level of GDP. Analysis was based on H_0 : that states that there is no significant relationship between exchange rate and GDP.

The Pearson correlation test and regression analysis were the employed methods of data analysis. Computer package like STATA was used in estimation of the regression models.

The theory on which on which the study was based (absorption theory 1967) suggest that, the depreciation of a currency increases production, switching expenditure from foreign to domestic goods. Thus depreciation of ER has an effect on GDP. However the findings of the study were as follows: exchange rate has been increasing by 620.8 shillings. GDP has been slightly increasing by 0.012 million shillings.

The depreciation of Exchange Rate favors the growth in Gross Domestic Product of Uganda. $R^2 = 0.19$ and this implies that Exchange rate explains 19% of the variation in GDP. Since exchange rate explains only 19% of the variation GDP, it means that there are other determinants of GDP that explains remaining 81%. R-value was -0.4377 and this signifies that there is a negative correlation between exchange rate and GDP. From the model specification, the gradient was -3.9956 which means that, a unit increase in exchange rate influences GDP by -0.39956.

5.2 Conclusions.

Exchange rate fluctuations affect the general GDP level in Uganda. Therefore, whenever there is fluctuation or exchange rate volatility, there will also be fluctuations of output. This discourages investors, make planning and economic forecasting difficult. Therefore, in order to encourage investors, and to promote people's welfare in Uganda, there is a need to reduce exchange rate fluctuations so as to allow relative price stability in the country.

5.2 Recommendations.

Bank of Uganda should pursue a conscious exchange rate policy, to secure competitiveness of the economy and improve people's welfare. This can be done by maintaining a relatively stable exchange rate.

The government through the BOU should maintain a managed float to avoid the destabilizing effects of excessive volatility of the exchange rate on trade, investment and human welfare, employment and inflation.

There is need to increase Government revenue and reduce the deficit budget to stabilize the exchange rate. In order to stabilize the exchange rate and possibly strengthen the shilling, two possibilities are proposed here.

Since Uganda's economy is still small and poor, a free- floating exchange rate regime cannot preserve independent functioning of monetary policy and achievement of macroeconomic objectives. Countries like France, Belgium, Germany, maintained a managed float and a pegged exchange rate between 1970's and 1980's, and they succeeded in solving problems of inflation (Gujarati1995).

Successful liberalization of a small and poor economy like that of Uganda must be accompanied by necessary macro economic and structural reforms in order to control inflation and to achieve macroeconomic objectives.

Increased foreign exchange inflow and reduce its outflow through increased exports and reduction of repatriation of profits by foreign investors.

There should be restructuring of records of foreign exchange outflow, inflow and their balancing. As already observed, the Ugandan shilling has been depreciating always. This proves that there has been always more foreign exchange outflow than inflow. So policies to increase foreign exchange inflow will be the most important solution. Such solutions may be increasing exports, reducing imports and encouraging capital inflow for example through non government organizations (NGO's).

Monitoring of foreign exchange inflows and outflow must be strengthened if Uganda is to have relative exchange rate stability.

Presently there is an arrangement in the bank of Uganda where forex bureaus have to submit in their list of sales and purchases. However, it is noted that many do not do it the forex news December 2010. The solution to this can be that BOU should send these forms to all forex bureaus and commercial banks and possibly to link their information systems to bank of Uganda through an internet project.

There should be an independent board of foreign exchange and exchange rate control as a special department within the bank of Uganda and ministry of finance.

It is necessary that the government, BOU and the exchange rate board intervene in the exchange rate after estimating a benefit on GDP level as it was before 1990.

External interventions from IMF, World Bank and other aid sources should be limited because in most cases, they lead to undesirable results and yet they do not suffer the consequences. Exchange rate regulations should not be abolished wholly because Uganda is still a poor country with a lot of interest to protect.

Even a country which is the custodian of free markets can intervene, as was the case in April 1994 when the dollar depreciated against the Germany mark, Japan's Yen and on a trade weighted basis by only 4.6%, 6.5% and 3.6% respectively. The Federal Reserve Bank intervened and purchased 500 million dollars and 200 million dollars respectively and thereafter the treasury secretary issued the following statement. "US monetary authorities intervened today in the foreign exchange markets, to counter disorderly conditions. This is in line with our previous articulated policy which recognizes that excessive volatility is counterproductive to growth". So if such giant economies do intervene to protect national goals, then what about a poor country like Uganda?

At the peak of the global financial crisis in the second half of 2008, the exchange rate suffered short term volatility which was triggered by high demand for foreign exchange of subsidiary companies abroad. Despite the volatility,

Government should maintain a market determined exchange rate policy. This policy served the Uganda economy well as it has provided the avenue for the economy to adjust to shocks in a timely manner, and therefore not caused permanent distortions or damage to the business environment.

A flexible exchange rate is the right policy choice. Hence, the exchange rate will continue to be determined by supply and demand forces in the foreign exchange market, with the Central Bank, only intervening in the market to deal with sharp volatility in the exchange rate movements. For example, when aggregate demand in the economy was low in the first half of FY 2009/10, the shilling appreciated sharply, undermining the competitiveness of the export sector.

In pursuit of this strategic decision, Bank of Uganda occasionally intervened and purchased foreign exchange to slow excessive appreciation pressures.

5.4 Areas for further research.

The researcher suggests that further research be carried out focusing on strengthening the shilling and stabilizing the exchange rate.

A study can be conducted assessing the effect of exchange rate fluctuations on investment level.

A study can also be carried out to assess the effect of exchange rate movements on employment.

A study can be conducted using both primary and secondary data.

REFERENCES

- Abuka C.A. (1993). Import support and the real effective exchange rate trends in Uganda.
- Atingi-Ego M. and Sebudde R. (2000). Uganda's Equilibrium Real Exchange Rate and Its implications for Export Performance Bank of Uganda.
- Barth, R. and Hemphill W. (2000). Financial Programming and Policy The case of Turkey (Washington D.C. IMF).
- Berument, H. and Pasaogullari M. (2003). Effects of the Exchange Rate on Output and Inflation Evidence from Turkey.
- Bouiyor J. and Rey, S. (2005). Exchange Rate Regime, Real Effective Exchange Rate, Trade Flows and Foreign Direct Investments, the case of Morocco (African Development Bank).
- Corden, W. Max (1986). 'Fiscal Policies, Current Accounts and Exchange Rates: In Search of a Logic of International Policy Coordination' (Bernard Harms Lecture).
- Corden, W. Max (1994). *Economic Policy, Exchange Rates, and the International System*. Oxford: Oxford University Press and Chicago: Chicago University Press.
- Choudri U. E. and Khan S. M. (2004). Real Exchange Rate in Developing Countries IMF Working Paper.
- Cottani J. A., Cavallo, D. F. and Khan M. S (1990). Real Exchange Rate Behavior and Economic Performance in LDCs (Economic and Cultural Change).
- Gujarati, D. N., (1995). Basic Econometrics, United States Military Academy, McGraw- Hill publishing company limited, New Delhi, Fourth Edition

- Hung Le Viet (2002). Real Effective Exchange Rate and Output in Vietnam
- Islam M. R. and Kamrul H. A.F.M. (2006). Does Government Expenditure Reduce GDP.
- Kamin, S. B. and J. H. Rogers (2000). "Output and the real exchange rate in developing Countries: An application to Mexico
- Kasekende L. and Ssemogerere G (1994). Exchange Rates Unification and Economic Development *World Development* Vol. 22: No 8: 20-4
- Kihangire D., Potts D J, and Cameron S,(2005). Has exchange rate variability affected Tropical non-traditional exports; Evidence from Uganda's Flower's exports (1994-2001). " Bank of Uganda Working paper.
- Kitov I.O, (2006). GDP Growth Rate and Population Institute for the Geospheres Dynamics, Russian Academy of Sciences, Moscow.
- Matovu k.j (1980-1992). M.A. Economics thesis submitted to the school of Postgraduate Studies, Makerere University, Kampala, Uganda.
- Montiel P.J, (1997). Exchange Rate Policy and Macroeconomic Management in Asian Countries in John Hicklin, David Robertson and Singh.
- Mugambe G (2004). Macroeconomic Issues Facing ASEAN Countries (IMF) Economic overview –Uganda.

- Mugume A. (2007). the Government Sector, Government Spending, Fiscal Deficits Makerere University, Kampala, Uganda.
- Musinguzi P.and Mutambi B. (2002). Monthly Model of Uganda's Equilibrium Real Exchange Rate Path, Inflation, Output Gap and Exports: An Auto Regressive Distributed lags (ARDL) Approach to Cointegration (Bank of Uganda Working Paper Series WP/05/04).
- Mutenyo J.R.K (1995). Devaluation and exports in Uganda Unpublished M.A EPP Thesis submitted to the school of Postgraduate Studies, Makerere University, Kampala, Uganda.
- Papazoglou C. E (1999). the Real Exchange Rate and Economic Activity: Is the Hard Drachma Policy Necessarily Contractionary Economic Bulletin, (Bank of Greece).
- Tayebwa mugisha B (2007). Basic economics, genuine researchers and publishers Kampala (U)
- Thapa B. N. (2001). Measures of Money Supply in Nepal Some Issues Arthik Meemansha FIEUN. Kathmandu NRB.
- Wokadala J. (2007). Effects of Exchange Rate Volatility on the Trade Balance of Uganda (Unpublished Thesis submitted to Makerere University).
- Wokadala J. (2007). Effects of Exchange Rate Volatility on the Trade Balance of Uganda (Unpublished Thesis, submitted to Makerere University).

World Bank (2007).

World Bank (2010).

Watundu Susan (2008). effect of real effective exchange rate on gross domestic product of Uganda (1975-2007)

APPENDIX I

TRANSMITTAL LETTER



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OFFICE OF THE COORDINATOR, ECONOMICS SCHOOL OF POSTGRADUATE STUDIES AND RESEARCH (SPGSR)

RE: REQUEST FOR RESEARCH ASSISTANT TO CONDUCT RESEARCH ON "GROSS DOMESTIC PRODUCT OF UGANDA"

The above mentioned is a candidate student of Kampala International University pursuing a Masters of Arts in Economics.

He is currently conducting a term research on "GROSS DOMESTIC PRODUCT OF UGANDA".

Your organization has been identified as a source of data and information for his research project. The student of this University is requesting to be given access to economic information on demand.

Any information shared with him from your organization shall be treated with utmost confidentiality.

Any assistance rendered to him will be highly appreciated.

Yours faithfully,

Mr. [Signature]
Coordinator, Economics, (SPGSR)

"Exploring the Heights"

APPENDIX 1I
TRANSMITTAL LETTER FOR THE RESPONDENTS

Dear Sir/ Madam,

Greetings!

I am a master student perusing Master of Arts in Economics, a candidate of Kampala International University. Part of the requirements for the award is a dissertation. My study is entitled, **"Exchange Rate on Gross Domestic Product of Uganda between 1990-2010."** Within this context, may I request you to participate in this study by answering the questionnaires? Kindly do not leave any option unanswered. Any data you will provide shall be for academic purposes only and no information of such kind shall be disclosed to others.

May I retrieve the questionnaire within ten days (10) days?

Thank you very much in advance.

Yours faithfully,

Sentongo Simon

APPENDIX III
CLEARANCE FROM ETHICS COMMITTEE

Date_____

Candidate's Data

Name_____

Reg.# _____

Course _____

Title of Study _____

Ethical Review Checklist

The study reviewed considered the following:

- ___ Physical Safety of Human Subjects
- ___ Psychological Safety
- ___ Emotional Security
- ___ Privacy
- ___ Written Request for Author of Standardized Instrument
- ___ Coding of Questionnaires/Anonymity/Confidentiality
- ___ Permission to Conduct the Study
- ___ Informed Consent
- ___ Citations/Authors Recognized

Results of Ethical Review

- ___ Approved
- ___ Conditional (to provide the Ethics Committee with corrections)
- ___ Disapproved/ Resubmit Proposal

Ethics Committee (Name and Signature)

Chairperson _____

Members _____

APENDIX IV
RESERCH INSTRUMENT (RECORD SHHEET)

Years	Exchange rates	Exchange rate growth rate	Growth rate
1990			
1991			
1992			
1993			
1994			
1995			
1996			
1997			
1998			
1999			
2000			
2001			
2002			
2003			
2004			
2005			
2006			
2007			
2008			
2009			
2010			

Appendix V.

Proposed Data Presentation through Tables /Graphs

Relation ship between exchange rate and GDP

Years	Exchange rate	level o f GDP in percentage
1990		
1991		
1992		
1993		
1994		
1995		
1996		
1997		
1998		
1999		
2000		
2001		
2002		
2003		
2004		
2005		
2006		
2007		
2008		
2009		
2010		

APPENDIX VI
PROPOSED BUDGET

Particular	Quality	Amount (ushs)
Stationary	5 reams of papers, binding materials 9 Cartridge 1	50,000/=
		30,000/=
		35000/=
Research assistants	2	150,000/=
Data analysis		300,000/=
Up keep		200000/=
transport		200,000/=
miscellaneous		150,000/=
	Total	1,430,000/=

APPENDIX VII
TIME FRAME

Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Proposal writing	bb									
Viva defense		bb								
Proposal corrections			bb							
Piloting				bb						
Data collection					bb	bb				
Data editing and entry							bb			
Data analysis								bb		
Report writing									bb	
Viva voce defense										bb
corrections and Submissions										bb

APPENDIX VIII
RESEARCHER'S CURRICULUM VITAE

CURRICULUM VITAE

PERSONAL DATA

Name : SENTONGO SIMON
Place of Birth : KYAMATENDE (KAMULI)
Date of Birth : 14TH APRIL 1986
Sex : Male
Marital Status : Single
Nationality : Ugandan
Email : sentongosimo@yahoo.com
Contact : +256 773135804/ 0758 093938

SUMMARY OF EDUCATION

2009 -2011	Kampala International University M.A.ECONOMIC (Candidate doing research)
2006 —2009	Kampala International University Bachelor in SPECIAL NEEDS EDUCATION (ECONOMICS/HISTORY) (Second Class Upper Degree)
2004—2005	BUSOGA High School -KAMULI Uganda Advanced Certificate of Education
2000 — 2003	BUGOBI HIGH School - BUGIRI Uganda Certificate of Education
1993—1999	BUGOBI Primary School - BUGIRI Primary Leaving Examination

LANGUAGE PROFECIENCY

English	Speaking	Writing	Hearing
Lusoga	Excellent	Very Good	Outstanding
Luganda	Excellent	Outstanding	Excellent
Lunyoro/ Tooro	Outstanding	Outstanding	Excellent
Runyankore	Average	Average	Outstanding

HOBBIES

- ❖ Making new developmental friends
- ❖ Adventuring
- ❖ Reading managerial/Administrative literature
- ❖ Listening to Gospel music

REFEREES

1. Dr Kibikyo Lamech
Dean, School of Economics and Applied statistics
Mobile: 0751979223
2. Mr. Kamali David
Senior principal personal Kamuli District
Mobile 0756675104

Appendix X

4.1The table below shows the trend of GDP in Uganda from 1990 – 2010.

Years	GDP growth rate in percentage
1990	6.01
1991	1.778
1992	2.78
1993	8.42
1994	6.427
1995	11.293
1996	9.102
1997	5.472
1998	3.801
1999	8.159
2000	5.437
2001	5.184
2002	8.733
2003	6.473
2004	6.807
2005	6.333
2006	10.68
2007	8.412
2008	8.709
2009	7.181
2010	5.269

Source; UBOS, BOU (2010).

Appendix XI

4.1.2 The table below showing the trend of exchange rate in Uganda from 1990 to 2010.

Years	Exchange rates	Exchange rate growth rate in %
1990	436.33	0.39
1991	749.58	0.417
1992	1145.43	0.34
1993	1195.02	0.04
1994	979.45	-0.22
1995	1011.8	0.31
1996	1058.1	0.43
1997	1149.7	0.79
1998	1382.08	0.168
1999	1512.78	.086
2000	1762.92	.14
2001	1754.58	.00475
2002	1998.23	-0.12
2003	1934.88	-0.03
2004	1737.69	-0.11
2005	1821.89	0.046
2006	1834.9	0.0709
2007	1685.8	-0.88
2008	1658.1	-0.01
2009	2030	0.18
2010	2166	0.06

Source; UBOS, BOU (2010).

Appendix XII

4.3.1: The table below shows exchange rates, Exchange rate growth rate and GDP Growth rate in Uganda 1990 -2010.

Years	Exchange rates	Exchange rate growth rate in%	GDP Growth rate in %
1990	436.33	0.39	6.01
1991	749.58	0.417	1.778
1992	1145.43	0.34	2.78
1993	1195.02	0.04	8.42
1994	979.45	-0.22	6.427
1995	1011.8	0.31	11.293
1996	1058.1	0.43	9.102
1997	1149.7	0.79	5.472
1998	1382.08	0.168	3.801
1999	1512.78	.086	8.159
2000	1762.92	.14	5.437
2001	1754.58	.00475	5.184
2002	1998.23	-0.12	8.733
2003	1934.88	-0.03	6.473
2004	1737.69	-0.11	6.807
2005	1821.89	0.046	6.333
2006	1834.9	0.0709	10.68
2007	1685.8	-0.88	8.412
2008	1658.1	-0.01	8.709
2009	2030	0.18	7.181
2010	2166	0.06	5.269

Source; UBOS, BOU (2010).

