

**FOREIGN EXCHANGE RATE FLUCTUATIONS AND THEIR EFFECTS ON TRADE  
IN THE LAST FIVE YEARS (2018-2022) IN UGANDA**

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**UGANDA CHRISTIAN  
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## DECLARATION

I Baguma Kartin Fredrick hereby declare that this research report entitled "foreign exchange rate fluctuations and their effects on trade in the last five years (2018-2022) in Uganda," is my original work and to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of a degree in any other University, except where due acknowledgement has been made.

Signed:  ..... Date: 26<sup>th</sup> - 09 - 2023 .....

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## APPROVAL

This is to certify that this research report titled, "foreign exchange rate fluctuations and their effects on trade in the last five years (2018-2022) in Uganda" was prepared under my guidance and supervision.

Signed.....*E. Nsiyona*.....Date.....*September 26, 2023*.....

MRS. ELSIE NSIYONA

## **DEDICATION**

I dedicate this research report to my parents who advised, supported and mentored me to go through education up to University level. I also dedicate this project to my friends for always being there when I needed someone and for motivating me to finish my project. Above all I thank the Almighty God for guidance and provision towards completion of this research project.

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## **ABSTRACT**

The study aimed at examining the effect of foreign exchange rate fluctuations on trade in the last five years (2018-2022) in Uganda. The study was guided by objectives which included: establishing the current state of foreign exchange rate fluctuations on trade in Uganda from 2018-2022, examining the short and long run effects of foreign exchange rate fluctuations on trade in the last five years in Uganda and determining the key drivers behind the observed foreign exchange rate fluctuations in Uganda and their implications for the country's trade competitiveness. The study used secondary data in order to achieve the stated research objective. The data was obtained from Uganda Bureau of Statistics and Bank of Uganda. Trade was analyzed with the foreign exchange rate fluctuations for the period of five years (2018-2022).

The research findings based on extensive secondary data analysis in Uganda shed light on the intricate dynamics of foreign exchange rate fluctuations and their profound impact on trade and the economy from 2018 to 2022. These findings underscored the significance of a stable exchange rate for trade competitiveness and economic stability. While Uganda has made progress in managing its balance of payments, controlling inflation, and adjusting interest rates, persistent challenges such as forex market regulation, export performance, and the implications of an ambitious infrastructure program persist. Addressing these challenges effectively is imperative for Uganda to navigate foreign exchange rate fluctuations, enhance trade competitiveness, and promote long-term economic resilience.

Finally, the study recommended a comprehensive strategy for Uganda to manage foreign exchange rate fluctuations effectively. This included diversifying exports and adding value to reduce reliance on volatile commodities, strengthening forex market regulation, maintaining stable monetary policies, and carefully managing infrastructure projects. Improving export quality, monitoring the current account balance, reviewing forex market regulations, fostering collaboration, and attracting foreign investment are also key. Prudent infrastructure investment, exploring forex-friendly financing, and avoiding undue pressure on forex reserves are essential considerations.

# CHAPTER ONE

## INTRODUCTION

### 1.0 Introduction

This chapter presents the background about foreign exchange rate fluctuations and their effects on trade in the last five years in general and in the Ugandan setting, the problem statement, objective of this study, research scope, research questions, and the significance of this study and the conceptual framework. This is essential as it provides the readers a perfect representation of what the study is about and in what ways it was done.

### 1.1 Background of the study

A foreign exchange rate is the price of a country's currency in terms of another country's currency. The effect of exchange rate instability on trade flows and other macroeconomic variables has been of great concern and devotion globally (Mashonda 2018). The effectiveness of exchange rate movement in improving the trade and exchange has long been an issue of considerable interest to economists and policy makers (Naef, 2022). Especially, since the breakdown of the Bretton Woods Accord in 1973, and the advent of floating exchange rates, there has been renewed interest on the effect of devaluation on the trade balance of both developed and developing countries (Gyourko & Berghahn, 2020). The mixed empirical support of the relationship between trade balance and changes in exchange rate provides the impetus for investigation of the relationship. Developing countries failing to meet their development plan have lurched from one development paradigm to another: from industrialization to import substitution, to export promotion, to Structural Adjustment Program (Gourinchas, 2021).

The effects of foreign exchange rate fluctuations on trade and exchange are ambiguous. While a large number of studies find that exchange rate movements tend to reduce the level of trade, others find either weak or insignificant or positive relationships (Oke & Adetan, 2018). The literature reveals that exchange rate fluctuations affect the level household incomes and consumption; firm investment, import and employment decisions; government's fiscal and monetary policies and trade balances. Exchange rate therefore plays an increasingly significant role in any economy as it directly affects domestic price level, profitability of traded goods and

services, allocation of resources and investment decision (Guzman et al., 2018). There is need for this kind of empirical studies to be undertaken in developing countries such as Uganda with time-variant exchange rates in order to counter this prevalent ambiguity in the literature and fill the research vacuum in less developed countries (Gachua, 2021).

The exchange rate is an important determinant of export growth and its progress through time, while it serves as a measure of international competitiveness and is therefore a useful indicator of economic performance (Ruzekova et al., 2020). High fluctuations in exchange rates create uncertainty about the profits to be made, thus reducing the gains of international trade and hampering the volume of trade (Uroos et al., 2022). A number of factors influence exchange rate and these include: relative rates of inflation, growth of domestic money supply, central bank intervention, comparative interest rates, size and trend of balance of payments, economic growth which is measured by the gross national product, dependency on outside drive sources, government policy, political stability, and the world's awareness of the strength of the foreign currency (Sousa et al., 2018).

Uganda being a small open economy, state that small open economies are more delicate to exchange rate volatility than large economies (Katusiime, 2018). Some of the reasons were that small open economies have less opportunity to regulate their exchange rates in the face of exchange rate changes via large economies' currencies. Secondly, many smaller countries have less diversified export structures and therefore it is more difficult to move into exports of products that are more price inelastic (Hooper & Kohlhagen, 2018). Thirdly, importers cannot necessarily source their needs in the domestic market in the case that their exchange rate depreciates, making foreign goods more costly. Finally, small countries often have smaller enterprises on average which may not be large enough to practice hedging (Ilzetzki et al., 2022).

Uganda's major exports are agricultural commodities such as coffee, tobacco and tea and these have been increasing over the years. Despite the increase in exports, their prices are always volatile which makes Uganda's export performance poor in due to unfavorable trade balance because of their low value (OECD, 2020). For instance, from 2010 to 2015, the trade deficit more than doubled from US \$ 1,061.1 million in 2010 to US \$ 2,801.6 million in 2015. This was attributed to exports that increased at a slower pace than could off-set the imports expenditure bill. During 2008 the export revenue increased by 29.0 percent compared to the import bill of

29.5 percent. The widening unfavorable trade balance could be attributed to the continued exportation of unprocessed agricultural products which form the bulk of Uganda's exports (Uganda Bureau of Statics 2022).

Statistics from the Bank of Uganda indicate that Uganda's exports have been declining in terms of value over the last year. For example it has been noted that Uganda's total exports for 2020 was \$5.80B, a 4.15% decline from 2019 and also Uganda exports for 2022 was \$5.47B, a 14.48% decline from 2021 which shows a declining rate (Mallory, 2023). However, Uganda's import bill continues to rise resulting into a widening trade deficit. Statistics from the Bank of Uganda indicate that Uganda's import bill increased from \$8.12B in 2020 to \$10.51B in 2021 representing a 29.42% increase in the total imports (UBOS, 2022). Since an accurate exchange rate has been one of the most important factors for economic growth in economies of Southeast Asia and volatility in exchange rates has been one of the major obstacles in Africa and Latin Americans economies. It was vital therefore to investigate the effect of foreign exchange rate fluctuations on Uganda's trade in the last five years (UBOS, 2021).

## **1.2 Problem statement**

Uganda's presence in international trade continues to increase drastically. As a result, Uganda is engaging in a much wider range of cross border transactions with different countries and products. This has led the country to witness foreign exchange fluctuations and the unpredictability of exchange rates affects the country's export earnings (Parshotam & Balongo, 2020). More so, much as the government of Uganda has tried to take on various measures to improve the county's exterior trade performance, the insistent foreign exchange fluctuations together with price fluctuation have weakened their efforts (Eberhard-Ruiz, 2022).

This has led to an escalation in literature that considerable exchange rate fluctuations generate macroeconomic disequilibria on export earnings and this would require the improvement exchange rate devaluation and management policies (Boykorayev, 2018). This implies that a rise in exchange rate fluctuations leads to uncertainty and this always leads to e negative impact on export earnings (Ntshwe & Garidzirai, 2021). Baldwin, Skudelny and Taglioni (2015) revealed in a study that the effect of exchange rate threat induced by exchange rate fluctuations on export earnings in the EU countries is negative. This means that as export earnings increase, exchange

rate fluctuations decrease. Hence, in assessment of this gap, the study raised to discover and comprehend the working research question, what is the effect of foreign exchange rate fluctuations on trade in the last five years in Uganda?

### **1.3 Purpose of the study**

The purpose of this study was to examine the effect of foreign exchange rate fluctuations on trade in the last five years (2018-2022) in Uganda.

### **1.4 Objectives of the study**

- i. To establish the current state of foreign exchange rate fluctuations on trade in Uganda from 2018-2022.
- ii. To examine the short and long run effects of foreign exchange rate fluctuations on trade in the last five years in Uganda.
- iii. To determine the key drivers behind the observed foreign exchange rate fluctuations in Uganda and their implications for the country's trade competitiveness.

### **1.5 Research questions**

- i. What is the current state of foreign exchange rate fluctuations on trade in Uganda from 2018-2022?
- ii. What is the short and long run effects of foreign exchange rate fluctuations on trade in the last five years in Uganda?
- iii. What are the key drivers behind the observed foreign exchange rate fluctuations in Uganda and their implications for the country's trade competitiveness?

## **1.6 Scope of the study**

### **1.6.1 Content scope**

The study focused on the effect of foreign exchange rate fluctuations on trade in Uganda in the last five years. It also focused on foreign exchange rate fluctuations as the independent variable and trade and exchange as dependent variable.

### **1.6.2 Time scope**

The study focused on the period from 2018 to 2022. This period helped the researcher to determine the level of foreign exchange rate fluctuations in the last five years and its effects on trade in Uganda.

## **1.7 Significance of the study**

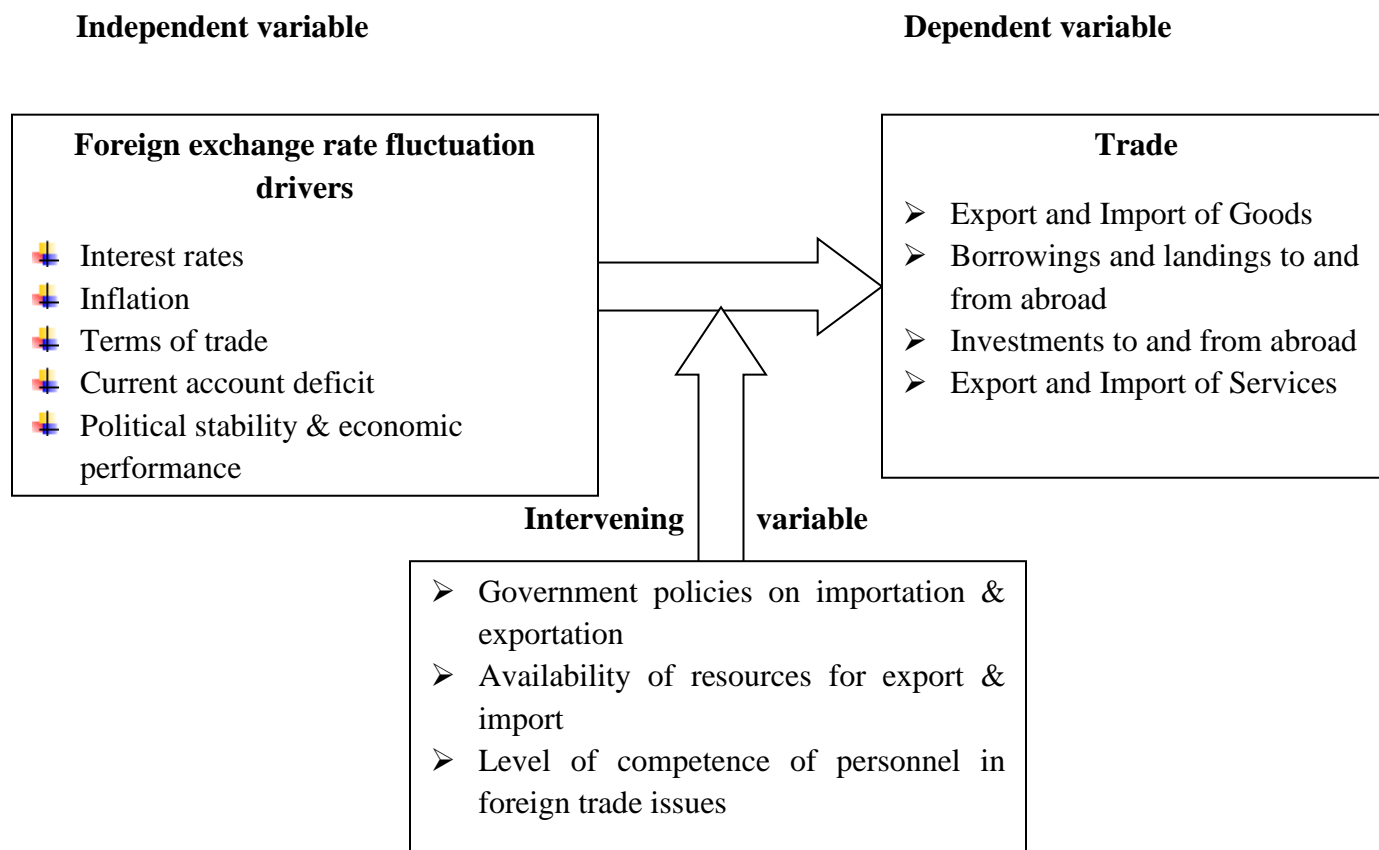
This study will improve future development by generating more knowledge and adding to the existing knowledge in the relationship of trade balance with foreign exchange rate fluctuations and other variables. This will be useful to the existing exporters in Uganda as they understand the effects of foreign exchange rate fluctuations on the trade and exchange in Uganda in the last five years.

Other researchers and students will benefit from this study whereby they will be able to get information that can help them while carrying out their research work concerning foreign exchange rate fluctuations and their effects on trade and exchange in Uganda in the last five years.

The study will also be significant to policy makers especially in the field of trade and exchange as this will enable them to formulate good policies that can help in improving on foreign exchange rates in the country.

## 1.8 Conceptual Framework

**Figure 1: Conceptual framework**



**Source:** *Researcher's conceptualization, 2023*

From the above discussion, it can be noted that once the drivers of foreign exchange rate fluctuations like; interest rates, inflation, terms of trade, current account deficit, political stability & economic performance are improved, trade is enhanced through improved export and import of goods, borrowings and landings to and from abroad, investments to and from abroad and export and Import of services among others. However, for this to be achieved, favorable government policies on importation & exportation must be put in place, resources for export & import must be availed and competence personnel in foreign trade issues must be hired.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Introduction

This chapter represents a review of related literature on the subject matter in the study. This review was presented under the identified variables in relation to the study objectives. The literature review included; text books, internet sources journals, newspapers and other articles with information related to the study.

#### 2.1 Concept of Foreign Exchange Rate Fluctuations

An exchange rate is the price of one nation's currency in terms of another nation's currency. Changes in exchange rates are given various names depending on the kind exchange rate regime prevailing. Under the floating-rate system, a fall in the market price (the exchange rate value) of a currency is called a depreciation of that currency; a rise is an appreciation. We refer to a discrete official reduction in the otherwise fixed par value of a currency as devaluation; revaluation is the antonym describing a discrete rising of the official par (Pugel and Lindert, 2010).

Foreign exchange rate movements can be defined as exchange rate volatilities that emanate from currency fluctuations. Such movements affect both the cash flow of a firms operations and the value of a firm. From a theoretical perspective, it is a generally held view that exchange rate fluctuations are an important source of macroeconomic uncertainty. They should thus have a significant impact on firm value, regardless of whether the firm is domestically or internationally oriented. This is because growing globalization has encouraged many corporations to extend their businesses beyond the geographical boundaries in order to benefit from competitive advantage and economies of scale (Afza and Alam, 2014).

Penetration into new markets has increased the firm's profitability, on one hand, and on the other it has also increased the variability in net income because of various financial risks. Therefore, the managers of the multinational firms are focusing on the importance of risk management techniques to reduce variability of their cash flows from foreign operations due to the fluctuations in foreign exchange rates. Exchange rate therefore plays an increasingly significant

role in any economy as it directly affects domestic price level, profitability of traded goods and services, allocation of resources and investment decision (Afza and Alam, 2014).

## **2.2 Relationship between imports, exports and foreign exchange rate fluctuations**

Theoretically foreign exchange rate movement has been found to have a relationship on the export and import of an economy. Hooper and Kohlhagen (2008) stated that increases in uncertainty of exchange rate affects trade negatively granted that people are risk-averse. In his analysis, De Grauwe (2008) noted that as trade volatility is based on people risk aversion, exchange rate volatility can hence lead to positive impact on export of goods and services.

Using the goods and money markets, Dincer and Kandil (2011) demonstrated theoretically how exchange rate affects export in the following two ways. Unanticipated appreciation in the local currency against its trading partners will lead to exports being expensive while import becomes cheaper in terms of the good market. This situation does not auger well for countries that depend on the foreign markets for its extracted resources or manufactured goods and services as it has the ability to lower productivity of local firms. Secondly, he noted that a positive shock to the local currency through sudden appreciation or overvaluation of it leads to lower interest rates as agents will prefer to hold less domestic currency. Thus through the money market, a positive shock to the local currency can reduce the local production output.

Greenaway et al. (2010) adopted a two-stage sample selection model to investigate the effect of exchange rates on Firm Exports. The results showed that firms that export are more likely to be bigger, older, more productive and foreign owned. Chit & Judge (2011) examined the role of financial sector development in influencing the impact of exchange rate volatility on the exports of five emerging East Asian countries like China, Indonesia, Malaysia, the Philippines and Thailand using a GMM-IV estimation method. The results indicated that the effect of exchange rate volatility on exports is conditional on the level of financial sector development. The less financially developed an economy, the more its exports are adversely affected by exchange rate volatility. In addition, a stable exchange rate seems to be a necessary condition to achieve export promotion via currency depreciation in these economies.

Trade policy plays a vital role in determining the trade of a country. If we have import substitution policies, then there could be a decline in the level of imports. Conversely, if the trade

is open, it could hinder the exports in short run but exports might increase in the long run. Low level of imports may cause a decline in exports due to a decline in production, and similarly a low level of exports may cause a decline in imports due to lack of foreign exchange. Therefore, developing countries would be well advised to gain a better understanding of the link between real exchange rate, exports, and imports.

The view that an increase in exchange rate volatility will have adverse effects on the volume of international trade is relatively widespread in studies conducted throughout the 1970s and 1980s (in addition to Clark, Hooper and Kohlagen, see also, inter alia, Baron (2006), Cushman (2003), Gros (2007), De Grauwe and Verfaillie (2008), Giovannini (2008) and others, at a period of increased volatility (IMF, 2014). However, these conclusions rest on relatively stringent assumptions, which have been scrutinized and relaxed by other authors - notably the assumption of perfect competition, the large role of the invoicing currency, the absence of imported inputs, the high aversion to risk, and the absence of exchange rate hedging financial instruments. This led the way to more sophisticated multi-country models with diversified firms, in which the relationship between exchange rates, the supply of goods and the decision to trade became more ambiguous.

Wong & Tong (2011) examined the effects of exchange rate variability on export demand for semiconductors, which is the largest sub-sector of electronics industry in Malaysia as reported by Malaysian Industrial Development Authority (MIDA, 2004). The empirical results, estimated based on the Johansen's multivariate co-integration tests and error correction model, suggested there is a unique long-run relationship among quantities of export, relative price, real foreign income and real exchange rate variability. The major finding was that the variability of real exchange rate has some effect on semiconductor exports in both the long run and the short run.

Yussof & Baharumshah (2009) examined the effects of the Malaysian dollar (ringgit) real exchange rate on the export demand for Malaysian primary commodities under alternative specification and estimation procedures. The results showed that the price and exchange rates were found to be inelastic meaning an increase in demand for exports due to depreciation in the ringgit may not be big enough to improve the balance of trade.

Wong & Tong (2011) examined the effects of exchange rate variability on export demand for semiconductors, which is the largest sub-sector of electronics industry in Malaysia as reported by Malaysian Industrial Development Authority (MIDA, 2004). The empirical results, estimated based on the Johansen's multivariate co-integration tests and error correction model, suggested there is a unique long-run relationship among quantities of export, relative price, real foreign income and real exchange rate variability. The major finding was that the variability of real exchange rate has some effect on semiconductor exports in both the long run and the short run.

### **2.3 Short and long run impact of foreign exchange rate fluctuations on trade**

Numerous factors determine foreign exchange rate movements, and all are related to the trade balance between two countries. Remember, exchange rates are relative, and are expressed as a comparison of the currencies of two countries. The following are some of the principal factors affecting foreign exchange rate movements on trade balance.

**Differentials in Interest Rates** Interest rates, inflation and exchange rates are all highly correlated. By manipulating interest rates, central banks exert influence over both inflation and exchange rates, and changing interest rates impact inflation and currency values. Higher interest rates offer lenders in an economy a higher return relative to other countries. Therefore, higher interest rates attract foreign capital and cause the exchange rate to rise. The impact of higher interest rates is mitigated, however, if inflation in the country is much higher than in others, or if additional factors serve to drive the currency down. The opposite relationship exists for decreasing interest rates - that is, lower interest rates tend to decrease exchange rates (Boykorayev, 2008).

**Differentials in Inflation:** As a general rule, a country with a consistently lower inflation rate exhibits a rising currency value, as its purchasing power increases relative to other currencies. During the last half of the twentieth century, the countries with low inflation included Japan, Germany and Switzerland, while the U.S. and Canada achieved low inflation only later. Those countries with higher inflation typically see depreciation in their currency in relation to the currencies of their trading partners. This is also usually accompanied by higher interest rates (Ejaz, Abbas & Saeed, 2012).

**Current-Account Deficits:** The current account is the balance of trade between a country and its trading partners, reflecting all payments between countries for goods, services, interest and

dividends. A deficit in the current account shows the country is spending more on foreign trade than it is earning, and that it is borrowing capital from foreign sources to make up the deficit. In other words, the country requires more foreign currency than it receives through sales of exports, and it supplies more of its own currency than foreigners demand for its products. The excess demand for foreign currency lowers the country's exchange rate until domestic goods and services are cheap enough for foreigners, and foreign assets are too expensive to generate sales for domestic interests (Marrewijk, 2007).

**Public Debt:** Countries will engage in large-scale deficit financing to pay for public sector projects and governmental funding. While such activity stimulates the domestic economy, nations with large public deficits and debts are less attractive to foreign investors. A large debt encourages inflation, and if inflation is high, the debt will be serviced and ultimately paid off with cheaper real dollars in the future. In the worst case scenario, a government may print money to pay part of a large debt, but increasing the money supply inevitably causes inflation. Moreover, if a government is not able to service its deficit through domestic means (selling domestic bonds, increasing the money supply), then it must increase the supply of securities for sale to foreigners, thereby lowering their prices. Finally, a large debt may prove worrisome to foreigners if they believe the country risks defaulting on its obligations. Foreigners will be less willing to own securities denominated in that currency if the risk of default is great.

**Terms of Trade:** A ratio comparing export prices to import prices, the terms of trade is related to current accounts and the balance of payments. If the price of a country's exports rises by a greater rate than that of its imports, its terms of trade have favorably improved. Increasing terms of trade show greater demand for the country's exports. This, in turn, results in rising revenues from exports, which provides increased demand for the country's currency (and an increase in the currency's value). If the price of exports rises by a smaller rate than that of its imports, the currency's value will decrease in relation to its trading partners (Kamin, 2003).

**Political Stability and Economic Performance** Foreign investors inevitably seek out stable countries with strong economic performance in which to invest their capital. A country with such positive attributes will draw investment funds away from other countries perceived to have more political and economic risk. Political turmoil, for example, can cause a loss of confidence in a currency and a movement of capital to the currencies of more stable countries (Khan, 2014).

## **2.4 Key drivers behind the observed foreign exchange rate fluctuations**

Exchange rates are influenced by many drivers. Many of these elements have to do with how the two nations' trading relations. Keep in mind that exchange rates are based on a comparison of the currencies of two different nations. Some of the main factors affecting the exchange rate between two countries include the ones listed below. The relative relevance of these factors is up for question, just like it is with many other aspects of economics, therefore take note that they are not listed in any particular order (Gwati, 2014).

Differentials in inflation: A nation with a historically low inflation rate typically has a growing currency value as its purchasing power rises in relation to other currencies. Japan, Germany, and Switzerland were among the nations with low inflation in the second half of the 20th century; the United States and Canada only subsequently attained this level of low inflation. The currencies of those nations with higher inflation often depreciate relative to those of their trading partners. Higher interest rates are typically accompanied by this as well (Rodrik, 2008).

Differentials in interest rates: Exchange rates, inflation, and interest rates all have a close relationship. Central banks control inflation and exchange rates through adjusting interest rates, which has an effect on both inflation and the value of currencies (Ejaz, Abbas & Saeed, 2012). An economy with higher interest rates provides lenders with a larger return compared to other nations. As a result, higher interest rates draw in foreign investment and drive up the value of the currency. However, the effect of higher interest rates is lessened if inflation in the nation is significantly higher than in other nations or if other factors contribute to the depreciation of the currency. Lower interest rates tend to cause exchange rates to rise, which is the opposite of the link that obtains for decreasing interest rates (Mirchandani, 2013).

Current account deficits: The balance of trade between a country and its trading partners, which includes all payments for goods, services, interest, and dividends, is known as the current account (Moccerro, 2006). A negative current account balance indicates that a nation borrows money from abroad to cover the deficit, indicating that it spends more on international trade than it brings in. In other words, the nation needs more foreign currency than it generates through export sales, and it produces more of it than foreigners are willing to pay for it. As local goods and services become affordable enough for foreign customers and foreign assets become too

expensive to produce revenue for domestic interests, the country's exchange rate declines as a result of the excessive demand for foreign money (Khan, 2014).

**Public debt:** Large-scale deficit financing will be used by nations to pay for public projects and governmental spending. While this activity boosts the domestic economy, international investors are less likely to invest in countries with huge public deficits and debts (De Grauwe and Verfaillie, 2008). A large debt promotes inflation, and if inflation is strong, the loan will eventually be serviced and repaid with real dollars that are less expensive. In the worst case, a government may issue currency to partially pay off a big debt, but expanding the money supply invariably results in inflation. Additionally, a government must increase the number of securities available for sale to foreigners in order to lower the price of those assets if it is unable to finance its deficit through domestic methods (selling domestic bonds, expanding the money supply). Finally, if foreign investors think the nation might default on its debts, a high debt may worry them. If there is a high chance of default, foreigners will be less eager to purchase securities denominated in that currency. Because of this, the country's debt rating—as established, for instance, by Moody's or Standard & Poor's—is a significant factor in determining its exchange rate (Giovannini, 2008).

**Terms of trade:** The terms of trade, which compare export prices to import prices, has an impact on current accounts and the balance of payments. A country's terms of trade have improved favorably if the price of its exports grows faster than the price of its imports. Growing terms of commerce indicate increased demand for the nation's exports. In turn, this leads to a rise in export earnings, which raises the value of the local currency and increases demand for it. The value of the currency will fall in comparison to its trade partners if the price of exports increases at a slower rate than the price of imports (Gwati, 2014).

**Strong economic performance:** Foreign investors invariably look for stable nations with robust economies to place their money in. A nation with such favorable characteristics will entice capital away from others thought to carry greater political and economic risk. For instance, political unrest can result in a decline in the value of a currency and a capital flight to currencies in more stable nations (Ramasamy, 2015).

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.0 Introduction

This chapter explains the methodology that was used to conduct the research, procedures and modalities of data collection. Inclusive is the research design, the study area, source of data, sampling procedures and ethical consideration.

#### 3.1 Research design

The study involved the use of cross-section survey research. Cross-section survey research entails the collection of data to make inferences about the population of interest at one point in time. It was used since it can investigate the effect of foreign exchange rate fluctuations on trade in the last five years (2018-2022) in Uganda. In addition, correlation analysis was used to examine the relationship between f foreign exchange rate fluctuations and trade in the last five years (2018-2022) in Uganda (Babbie, 2014). on trade in the last five years (2018-2022) in Uganda were selected for this study.

#### 3.2 Data source and description

**Secondary data:** This refers to handling, collecting and possibly processing data by people other than the researcher in question. This source was used to collect data from already written literature for example e-books, journals, published articles and periodicals. And documentary resources were classified in order to facilitate the data collection and textual analysis (Mubazi 2008). Secondary data about the effect of foreign exchange rate fluctuations on trade in the last five years (2018-2022) in Uganda was gotten from reports and journals from the Bank of Uganda and Uganda National Bureau of Statistics. It stressed the current state of exchange rate fluctuations and trade exchange in Uganda for the last five years and this was done by looking at the current accounts and the exports and imports of Uganda. It also looked at the interest rates and inflation developments in Uganda for the past five years.

### **3.3 Data Analysis**

The researcher used content data analysis which according to SatuElo & HelviKynga (2007:1) aims at building a model to describe the phenomenon in a conceptual form. Both inductive and deductive analysis processes were represented at three main phases: preparation, organizing and reporting. The preparation phase is similar in both approaches. The concepts are derived from the data in inductive content analysis. Deductive content analysis is used when the structure of analysis is operationalized on the basis of previous knowledge.

The relationship between the stated variables was evaluated using Pearson's correlation coefficient. The correlation coefficient at all times takes a value between -1 and 1, with 1 or -1 indicating perfect correlation. A positive correlation shows a positive association between the variables, while a negative correlation indicates a negative association between the variables. A relationship value close to 0 indicates no association between the variables. A multiple correlation coefficient was used to test the hypothesis on correlation at 0.05 level of significance using a t-test was employed. The regression analysis  $R^2$  (coefficient of determination) was computed to determine the influence of the dependent variable on the independent variable.

### **3.4 Ethical Considerations**

According to Nsubuga & Katamba (2013) ethical issues include setting clearances from the ethical body and consent of the respondent. It refers to the moral justification of the investigation or intervention; as regards the minimal about disregard, safety and psychological wellbeing of the person and or community. The researcher exhibited a high level of ethical behaviour in course of implementing the study; confidentiality where the information or all the sources of literature was acknowledged throughout the whole study through proper citations and referencing.

## CHAPTER FOUR

### PRESENTATION, INTERPRETATION AND DISCUSSION OF FINDINGS

#### 4.0 Introduction

This chapter presents analysis and findings of the study as set out in the research objective and research methodology. It begins by preliminary data findings by giving the descriptive statistics, correlation analysis and regression analysis carried out. The data used in the study was secondary data gathered from Bank of Uganda and Uganda Bureau of Statistics.

#### 4.1 Current state of foreign exchange rate fluctuations on trade in Uganda 2018-2022

The study sought to establish the effect of foreign exchange rate fluctuations on trade and exchange in Uganda with reference to the mostly used foreign currency the United States Dollar. The findings were as shown below

##### 4.1.1 Balance of Payments

Balance of payments (BoP) statement summarises all transactions between a country's residents and its nonresidents involving goods, services and income; financial claims on and liabilities to the rest of the world; and transfers such as gifts. Within the BOP, there are three separate categories under which different transactions are categorized: the current account, the capital account and the financial account. The overall BoP balance in Uganda stood at a deficit 66 million US dollars in 2021/22 following a previous deficit of 219 million US dollars recorded in 2020/21 (UBOS Abstract, 2022).

**Current account balance:** The current account is the sum of balance of trade (goods & services exports less imports), net income from abroad and net current transfers. Current account balance registered a deficit of 3,591 million US dollars in 2021/22 compared to a deficit of 3,841 million US dollars recorded in 2020/21 translating into about 250 million US dollars improvement over the period. This was attributed to the slight improvement noted in net exports of services from 1,892 million US dollars deficit in 2020/21 to 1,324 million US dollars deficit in 2021/22. Goods and primary income balances significantly contributed to the current account deficit.

**Capital and financial account balance:** The capital account combined with the financial

account represents the transfer of capital to help pay for the current account, which includes the trade of goods and services. Capital account measures the inflow and outflow of short-term and long-term capital transfers. These are mainly non produced and nonfinancial assets such as land, leases, licenses, grants, market assets like trade names, copyrights etc. The capital account balance declined from 171 million US dollars surplus recorded in 2020/21 to 158 million US dollars recorded in 2021/22. Financial account components include direct investment, portfolio investment and reserve assets, which are broken down by sector. The financial account shows a net borrowing position of 2,999 million US dollars in 2021/22, down from 3,393 million US dollars recorded in 2020/21. This was attributed to the underperformance noted in other investment over the period.

Therefore looking at the balance of payment in the different sectors of the economy in Uganda in the last five financial years, agriculture, forestry and fishing sector activities grew by 4.4 percent in the FY 2021/22 which was 0.1 percentage points higher than the previous year's growth of 4.3 percent. Industry sector activities grew by 5.1 percent in the FY 2021/22 which was 1.6 percentage points higher than the previous year's growth. The Services sector grew by 4.1 percent in the FY 2021/22 which is a 1.3 percent higher than the previous year's growth. Taxes on products had a strong growth of 7.5 percent in the FY 2021/22 compared to 6.2 percent in the FY 2020/21 as shown in the table below;

**Table 1: Percentage growth rate in GDP, FY 2017/18 – 2021/22**

	2017/18	2018/19	2019/20	2020/21	2021/22
GDP at market prices	6.3	6.4	3.0	3.5	4.7
Agriculture, forestry and fishing	4.4	5.3	4.8	4.3	4.4
Industry	4.8	9.0	3.2	3.5	5.1
Services	8.5	5.8	2.5	2.8	4.1
Taxes on products	4.4	4.4	- 1.6	6.2	7.5

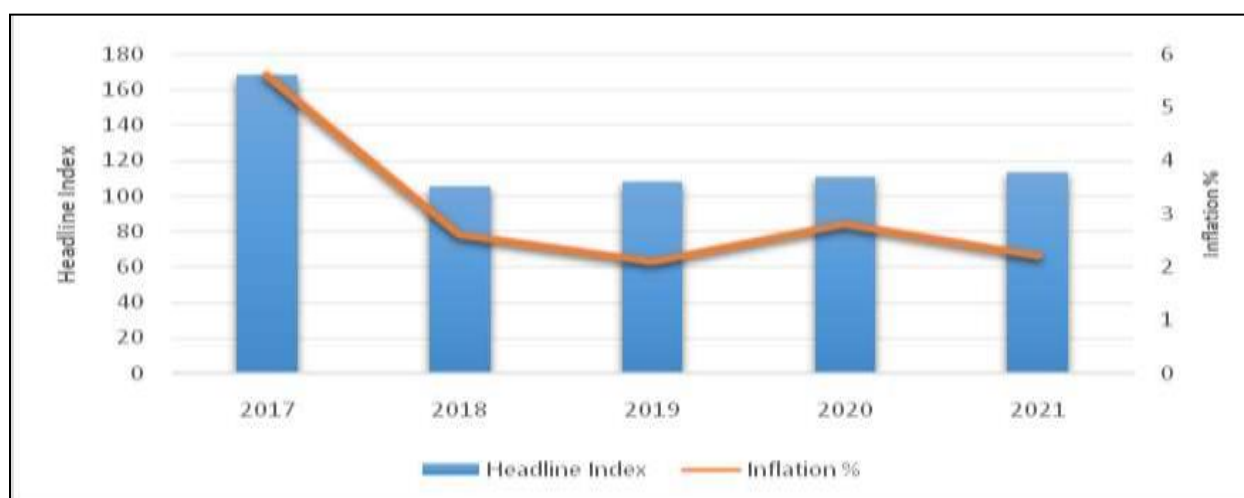
**Source:** *Uganda Bureau of Statistics (2022)*

### 4.1.2 Inflation

Inflation remains benign in Uganda over the past five years and in here, we look at the headline inflation, the core inflation, food price inflation and Energy, Fuel and Utilities inflation.

**Headline inflation:** Headline Inflation is the measure of the relative change in prices of all goods and services for all the 10 consumption baskets. The Calendar Year 2021 registered a lower annual average inflation of 2.2 percent compared to 2.8 percent that was registered in the CY2020. The decline recorded in the CY2021 was a contribution of all the three sections i.e., the annual average Core inflation, Food Crops and Related Items then Energy Fuel and Utilities, all registered a fall in the average indices during the CY 2021 as shown in figure 2 below;

**Figure 2: Headline Index and Annual Average Inflation 2017 –2021**



**Source:** Uganda Bureau of Statistics (2022)

The Gulu centre recorded the highest decline with an annual average inflation rate (1.9%) in CY2021, compared to 4.3 percent recorded in CY2020. This was followed by Arua (2.2%) in CY2021 compared to 3.9 percent recorded for the CY2020. The lowest annual average inflation for CY2021 was recorded in Kampala Low Income (1.3%), compared to 2.9 percent that was observed in CY2020. The FY2020/21 registered an annual average inflation of 3.4 percent compared to the 2.5 percent recorded during the FY2020/21 (UBOS Abstract, 2022).

**Core inflation:** Core Inflation, sometimes referred to as Underlying Inflation, measures relative changes in the prices of all goods and services in the consumption expenditure basket excluding

fresh fruits, fresh vegetables, dried vegetables and fresh milk. Also excluded are tobacco leaves, electricity, petrol, diesel, paraffin, charcoal, propane gas, metered water and un-metered water. The annual average Core Inflation declined to 2.8 percent in the CY2021, from the 3.2 percent recorded during the CY2020.

**Food crops inflation:** The annual average Food Crops inflation for the CY2021 decreased to minus 0.9 percent, from minus 0.5 percent recorded for the CY2020. The FY2021/22, registered a higher annual average food crops inflation of 4.4 percent, compared to the minus 4.3 percent recorded for the FY2020/21.

**Energy, fuel and utilities (EFU) inflation:** The Energy, Fuel and Utilities (EFU) sector comprises of Petrol, Diesel, Charcoal, Firewood, Kerosene, Liquefied gas propane, Electricity, Water charges from NWSC and Water Charges – other sources. During the CY2021, the annual average EFU inflation declined to a minus 0.7 percent, from 1.3 percent recorded during the CY2020. All the above on inflation are shown in the table below;

**Table 2: Headline, Core, Food Crops and EFU Average Annual Inflation 2019-2021**

	Index				Annual % Change				
	Core	and Related Items	Energy Fuel and Utilities	All Items Index	Core	and Related Items	Energy Fuel and Utilities	All Items Index	
<b>Weights</b>	<b>839.6200</b>	<b>95.1046</b>	<b>65.2755</b>	<b>1000.0000</b>					
<b>Financial Year</b>									
2016/17	100.00	100.00	100.00	<b>100.00</b>					
2017/18	103.61	103.64	107.58	<b>103.87</b>	3.6	3.6	7.6	<b>3.9</b>	
2018/19	106.68	98.46	117.08	<b>106.57</b>	3.0	-5.0	8.8	<b>2.6</b>	
2019/20	109.08	102.16	118.86	<b>109.06</b>	2.3	3.7	1.5	<b>2.3</b>	
2020/21	112.89	97.80	117.74	<b>111.77</b>	3.5	-4.3	-0.9	<b>2.5</b>	
2021/22	116.49	102.11	123.88	<b>115.61</b>	3.2	4.4	5.2	<b>3.4</b>	
<b>Calendar Year</b>									
2018	105.11	101.64	114.02	<b>105.36</b>					
2019	107.68	100.27	117.48	<b>107.61</b>	2.4	-1.4	3.0	<b>2.1</b>	
2020	111.16	99.72	118.96	<b>110.58</b>	3.2	-0.5	1.3	<b>2.8</b>	
2021	114.23	98.82	118.10	<b>113.02</b>	2.8	-0.9	-0.7	<b>2.2</b>	

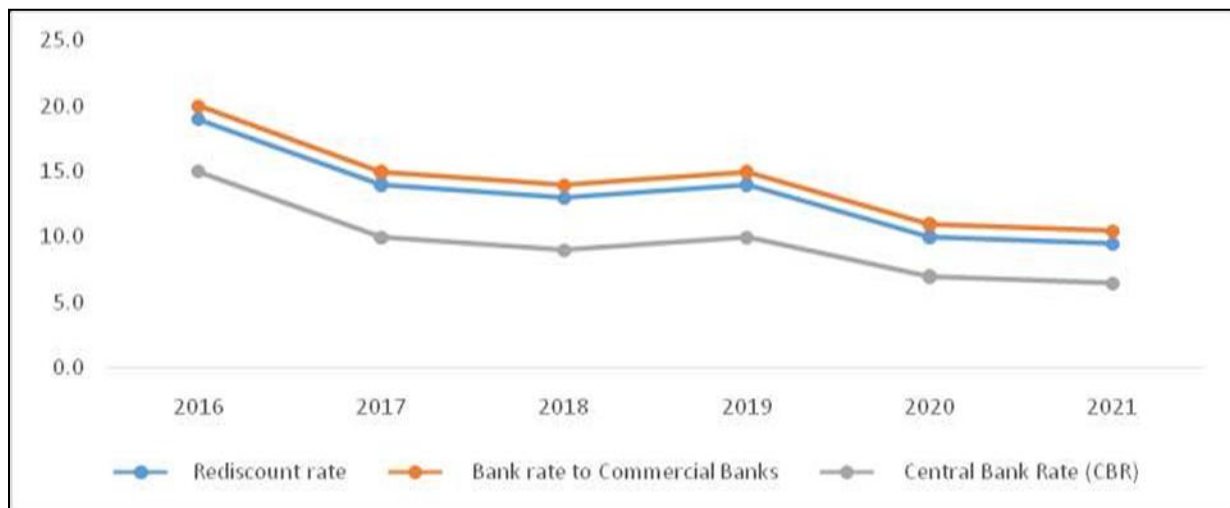
**Source:** Uganda Bureau of Statistics (2022)

In conclusion, it is important to note is that during the CY2022, the national annual average Index declined by 2.2 percent. The main drivers were clothing/footwear that declined to 1.4 percent in the CY2022 from 2.2 percent in the CY2021, Housing, water, electricity, gas and other Fuels that fell to minus 0.8 percent in the CY2022 from 2.3 percent registered in the CY2021 (UBOS Abstract, 2022).

### 4.1.3 Interest rates

The Central Bank Rate (CBR), which is the rate at which commercial banks can borrow from the Central Bank, decreased to 6.5 percent in June 2021 from seven percent in June 2020. In the same way, Commercial bank rate decreased to 10.5 percent in June 2021 from 11 percent in June 2020. On annualised basis, the CBR averaged 6.7 percent in 2021 compared to an average of 7.7 percent recorded in 2020. Additionally, Rediscount rate, the rate of discounting a short term negotiable debt instrument for a second time, increased to 9.7 percent in 2021 from 11.1 percent recorded in 2020 (BoU, 2022).

**Figure 3: Annualised Average Interest Rates (Percent), 2016-2021**



**Source:** *Bank of Uganda (2022)*

Treasury bills are government bonds or debt securities with maturity of less than a year. The 91 days Treasury Bills rate decreased to 6.7 percent in June 2022 from 7.5 percent in June 2021. Similarly the 182 days Treasury Bills rate decreased to 8.1 percent in June 2022 from 9.4 percent in June 2021. The 364 155 days Treasury Bills rate also decreased to 9.02 percent in June 2022 from 10.8 percent in June 2021 (BoU, 2022).

### 4.1.4 Exchange rates

The average buying rate for foreign exchange (US dollar) depreciated from Uganda Shillings 3,704 in 2020 to Uganda Shillings 3,572 in 2021. Likewise, the average selling rate depreciated

from Uganda Shillings 3,717 in 2020 to Uganda Shillings 3,589 in 2021. The Bureau mid-rate also depreciated from an average of Uganda Shillings 3,711 in 2020 to an average of Uganda Shillings 3,580 in 2021. Furthermore, the interbank mid-rate (official) depreciated from an average of Uganda Shillings 3,718 in 2020 to an average of Uganda Shillings 3,587 in 2020, as reflected (UBOS Abstract, 2022).

**Table 3: Annual Foreign Exchange Rates (Uganda shillings per US\$), 2016-2021**

<b>Exchange rates</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Buying rate (weighted)	3,407	3,596	3,707	3,690	3,704	3,572
Selling rate (weighted)	3,422	3,643	3,730	3,709	3,717	3,589
Bureau mid-rate	3,414	3,620	3,719	3,699	3,711	3,580
Inter-bank mid-rate	3,420	3,611	3,728	3,704	3,718	3,587

**Source:** *Uganda Bureau of Statistics (2022)*

The total volume of foreign exchange purchases across commercial banks (Inter-bank) and forex bureaux increased by 25.4 percent from United States Dollars 11,506 million in 2020 to United States Dollars 14,429 million in CY2021. In the same way, total volume of foreign exchange sales across commercial banks (Interbank) and forex bureaux grew by 24.9 percent from United States Dollars 11,100 million in 2020 to United States Dollars 13,868 million in the CY2021 (UBOS Abstract, 2022).

**Figure 4: Volume of purchases and sales of foreign exchange, 2017 to 2021**

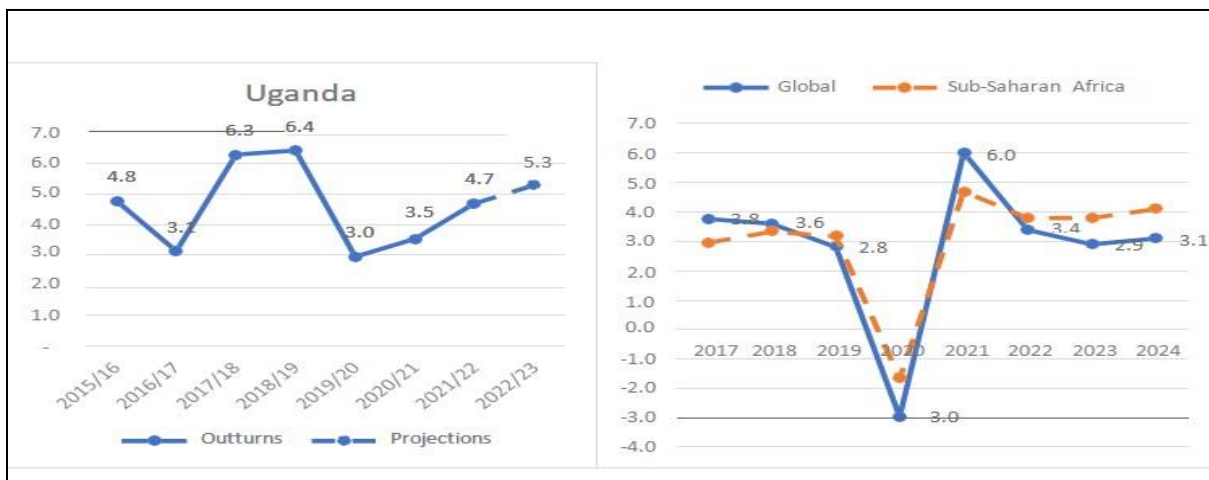


**Source:** Bank of Uganda

Purchase of forex has continued to outweigh total sales, with a difference of United States Dollars 561 million. Notably, growth in purchases was higher than that of sales in the CY2020. The low sales of forex can partly be explained by the continued loss of value (depreciation) of the local currency against the US dollar (BoU, 2022).

#### 4.2 The short and long run impact of foreign exchange rate fluctuations on trade in Uganda

**Figure 5: Showing impact of foreign exchange rate fluctuations on trade**



**Source:** Uganda Bureau of Statistics, MoFPED, IMF World Economic Outlook update-January

2023

**Price competitiveness:** In the short run, a depreciation of the Ugandan Shilling (UGX) can make Ugandan exports cheaper for foreign buyers. This can lead to an immediate increase in exports of goods and services, as foreign consumers find Ugandan products more affordable. Conversely, it can make imports more expensive, potentially reducing the demand for foreign goods in the Ugandan market. This short-term boost in export competitiveness can positively impact trade balances by narrowing the trade deficit (Katusiime, 2018).

**Import costs and inflation:** While a weaker UGX can benefit exports, it can also raise import costs, contributing to inflationary pressures in the short run. Imported goods and raw materials become more expensive, and businesses may pass on these increased costs to consumers through higher prices. This inflation can erode the purchasing power of consumers and impact domestic demand for both imported and locally produced goods (Ntshwe & Garidzirai, 2021).

**Investment and production decisions:** In the long run, exchange rate fluctuations can influence investment and production decisions. A consistently depreciating UGX may encourage domestic firms to invest in export-oriented industries, as they anticipate higher profitability due to favorable exchange rates. This could lead to the development of export-oriented industries in Uganda, potentially diversifying the economy (UBOS Abstract, 2022).

**Trade balance adjustment:** Over time, exchange rate fluctuations can help adjust trade imbalances. Depreciation can initially boost exports and reduce imports, narrowing the trade deficit. If this trend continues, it may lead to a more sustainable trade balance, which is vital for long-term economic stability. However, the effectiveness of this adjustment depends on various factors, including the elasticity of demand for exports and imports (BoU, 2022).

**Foreign debt and borrowing costs:** Exchange rate fluctuations can also affect the cost of servicing foreign-denominated debt. A depreciating currency can increase the cost of repaying foreign loans, impacting the country's overall debt burden. This can have long-term fiscal implications, as higher debt servicing costs may limit the government's ability to invest in critical sectors and infrastructure (Ntshwe & Garidzirai, 2021).

**External investment:** Exchange rate stability and predictability are essential for attracting

foreign direct investment (FDI). Significant and unpredictable exchange rate fluctuations can deter foreign investors who are concerned about the impact on their returns and the stability of their investments. A stable exchange rate environment is more likely to attract long-term foreign investment in Uganda.

Poor performance of Uganda's exports: In order to increase the dollars inflows in the country, we need to produce for export. Uganda has for a long time now struggled with the question of increasing value from her exports. In the FY 2016/17, the earnings from total exports declined by 6.97%. From the FY 2016/17 in July to the FY 2018/19 in January, the average value of Uganda's exports was USD 227.83 million. This implies that value addition is still a very much need concept especially of the coffee that we earn most of the value from (the value of the coffee earnings have reduced consistently from USD 113.29 million of the FY 2017/18 to USD 89.94 million in the FY 2018/19).

Locally registered firms charging for services rendered in foreign currency: The act of charging for services provided in Uganda in USD is worsening the already bad forex situation in Uganda. For as long as the investors, local or international do not value the shilling enough to have it as the medium of exchange in our economy, the forex situation will continue to be bad. This is common in the tourism and service sector to the extent that even local building owners in Uganda ask for rent in USD.

The ambitious infrastructure programme by the GoU: The Karuma Hydro power Dam Project (600 MW) to cost UGX 1,096 billion<sup>4</sup> in the FY 2018/19, the Isimba Hydro power dam projects (183 MW) to cost UGX 0.9 billion<sup>5</sup> in the FY 2018/19, the standard gauge rail way project and the Oil sub sector investments are having a major impact on the forex market in Uganda. The huge forex requirements by these under takings in reality or in speculation cannot be sustained by the Uganda's forex market. Whereas actual expenditure on the dam projects is getting stronger as they kicked off in the FY 2018/19, the economy does not have enough dollar to implement them without shocks like we are witnessing. The equipment required to implement the projects is procured in forex (USD) and so are the payments to the expatriates employed with these projects. The standard gauge rail way project has also had major speculative impacts that have too wiped dollars from the economy.

The Deteriorating Current Account balance: The current account measures the inflows and outflows of goods, services and investment incomes. When there is a persistent and large current account deficit, it means that the value earned from exports cannot pay for the value needed to purchase the imports. More of the local currency then needs to be converted into foreign currency in order to fill the foreign exchange gap needed to import what the country needs. In effect the foreign currency in this case the USD will be getting scarce, with high demand yet the supply is low (from export earnings), causing what is known as depreciation of the local currency (Ugandan Shilling).

Inadequate regulation of the forex market: In Uganda, there is poor regulation of the flow of forex in and out of Uganda. Uganda is one of the few countries in the world that does not care or have a limit on the amount of forex that can be repatriated, exchanged or held as cash at any one time. Whether this is staged as an incentive for investors or otherwise, it hurts the stock of forex in the country. One can argue that the floating exchange system we are exercising in Uganda will continue to make it hard for the shilling to be stable against the dollar.

#### **4.2.1 Regression analysis showing the impact of foreign exchange rate fluctuations on trade in Uganda**

The regression analysis is concerned with the distribution of the average value of one random variable as the other variables which need not be random are allowed to take different values. A multivariate regression model was applied. The regression model specifically connects the average values of dependent variable for various values of the independent variables. A regression equation is in no way a mathematical linking two variables but serves as a pointer to questions to be answered. Basically, the regression analysis is used in two distinct ways; (1) as a means of considering data taking into account any other relevant variables by adjustment of the random variable; and (2) to generate mathematical forms to be used to predict the random variable from the other (independent) variables. The regression model was as follows:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + e$$

**Table 4: Regression Coefficient Results**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	8.283	.293		28.246	.001
Differentials in interest rates	.217	.018	.248	.368	.000
Differentials in inflation	.305	.010	.357	1.513	.000
Balance of payment	.204	.901	.194	.591	.000

a. Dependent Variable: Trade in Uganda

**Source:** Research Findings (2023)

The established regression equation after estimation was given as

$$Y = 8.283 + 0.248X_1 + 0.357X_2 + 0.194X_3$$

From the regression equation above, it was established that interest rate ( $X_1$ ), inflation ( $X_2$ ) and balance of payment ( $X_3$ ) constant, trade would be 8.283. A one unit change in interest rates results in 0.248 unit increase in trade in Uganda, one unit change in inflation results in a 0.357 unit increase in trade in Uganda, and one unit change in balance of payment results in a 0.194 unit increase in trade in Uganda.

This implies that the three predictors of exchange rate fluctuation (differentials in interest rates, differentials in inflation and balance of payment) were important in determining trade in Uganda. It should be noted that a variable with very high tolerance contributes a lot of information to a model. In the regression output above the three variables mentioned had very high tolerance and are therefore relatively important in determining trade and exchange of a country. More so, it can be seen that inflation has the highest tolerance meaning that differentials in inflation have a bigger impact on trade than interest rates and balance of payment.

### **4.3 The key drivers behind the observed foreign exchange rate fluctuations in Uganda and their implications for the country's trade competitiveness**

Global commodity prices: One of the major drivers of exchange rate fluctuations in Uganda is the global price of commodities, particularly the prices of Uganda's major exports like coffee and oil. When global commodity prices rise, Uganda's export earnings increase, leading to higher demand for Ugandan Shillings (UGX) to facilitate trade. This can lead to an appreciation of the UGX. Conversely, falling commodity prices can result in a depreciation of the UGX, as export revenues decline. An appreciating UGX due to rising global commodity prices can make Ugandan exports more expensive for foreign buyers, potentially reducing export competitiveness. On the other hand, a depreciating UGX can boost export competitiveness in the short term but may lead to inflationary pressures and increased import costs (Katusiime, 2018).

Monetary policy: Decisions by the Bank of Uganda regarding monetary policy, including changes in interest rates, can influence exchange rates. A higher interest rate can attract foreign capital inflows, increasing demand for the UGX and potentially leading to an appreciation. Conversely, lower interest rates can discourage foreign investment and lead to a depreciation. An appreciating UGX due to higher interest rates can make exports more expensive for foreign buyers, negatively impacting trade competitiveness. Conversely, a depreciating UGX can make exports cheaper and imports more expensive, potentially boosting trade competitiveness in the short term (Ntshwe & Garidzirai, 2021).

Speculation and market sentiment: Exchange rate movements in Uganda are also influenced by speculative activities and market sentiment. Traders and investors may buy or sell UGX based on their perceptions of future exchange rate movements, which can create short-term fluctuations. Excessive speculation can lead to increased exchange rate volatility, making it difficult for businesses to plan and invest in the long term. This can create uncertainty in the trade environment, affecting trade competitiveness.

Government policies and interventions: The Ugandan government can influence exchange rates through its policies and interventions in the foreign exchange market. For example, government efforts to stabilize the UGX may involve interventions in the foreign exchange market to buy or

sell UGX. While government interventions can help stabilize exchange rates and reduce volatility, they may also create distortions in the market. Overreliance on interventions can deplete foreign exchange reserves, limiting the government's ability to respond to external economic shocks (Alupo, 2016).

External shocks: External events, such as changes in global economic conditions, trade disputes, or geopolitical events, can impact exchange rates. These external shocks can lead to sudden and significant fluctuations in the value of the UGX. Exchange rate fluctuations driven by external shocks can disrupt trade patterns and create uncertainty for businesses. Uganda's trade competitiveness may be affected if these shocks lead to unfavorable exchange rate movements (Kasekende, 2016).

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter presents the summary of the study and makes conclusions based on the study results. Policy recommendations and recommendations for further research are also presented in this chapter. It also presents findings from the study in comparison to what other researchers have concluded as indicated in the literature review.

#### 5.1 Summary of the research findings

From the secondary data collected from Bank of Uganda, Uganda Bureau of Statistics and Uganda Revenue Authority, the findings regarding the impact of foreign exchange rate fluctuations on trade and the economy in Uganda from 2018 to 2022 reveal several key trends. In terms of the balance of payments, Uganda experienced a deficit of 66 million US dollars in 2021/22, which marked an improvement from the previous year's deficit of 219 million US dollars. This improvement was primarily attributed to a slight uptick in net exports of services. However, the current account remained in deficit, with goods and primary income balances contributing significantly to this shortfall.

Inflation in Uganda remained relatively benign over the five-year period, with headline inflation decreasing from 2.8 percent in 2020 to 2.2 percent in 2021, driven by declines in core inflation, food crops inflation, and energy, fuel, and utilities inflation. Interest rates, including the Central Bank Rate and commercial bank rates, decreased during this period, with an average CBR of 6.7 percent in 2021. Exchange rates showed depreciation, with the average buying rate for the US dollar declining from Uganda Shillings 3,704 in 2020 to Uganda Shillings 3,572 in 2021, leading to increased foreign exchange purchases and sales. Despite the growth in purchases, forex sales remained lower due to the continued depreciation of the local currency against the US dollar. These findings highlight the complex interplay between exchange rates, trade, inflation, and interest rates in Uganda's economy during the specified period.

Furthermore, the study findings based on secondary data analysis reveal several key factors driving foreign exchange rate fluctuations in Uganda from 2018 to 2022 and their implications for trade and exchange. In the short run, a depreciating Ugandan Shilling (UGX) enhances price competitiveness, making exports cheaper and potentially boosting trade balances, but it raises import costs and contributes to short-term inflation. In the long run, exchange rate fluctuations influence investment decisions and trade balance adjustments, with a consistently depreciating UGX encouraging investment in export-oriented industries and helping to address trade imbalances. However, this depreciation can also impact foreign debt servicing costs and the attractiveness of Uganda for foreign investment. Additional factors exacerbating forex challenges include a poor performance of Uganda's exports, locally registered firms charging for services in foreign currency, an ambitious infrastructure program, a deteriorating current account balance, and inadequate forex market regulation. Addressing these issues is crucial for stabilizing Uganda's exchange rate and fostering sustainable trade competitiveness.

Finally, the study findings based on secondary data analysis in Uganda reveal that foreign exchange rate fluctuations are primarily driven by global commodity prices, monetary policy decisions, speculation, government interventions, and external shocks. When global commodity prices rise, Uganda's export earnings increase, which can lead to an appreciation of the Ugandan Shilling (UGX) but potentially reduce export competitiveness. Monetary policy changes, such as higher interest rates, can attract foreign capital inflows and lead to a UGX appreciation, affecting trade competitiveness. Speculation and market sentiment contribute to short-term fluctuations, creating uncertainty in the trade environment. Government interventions can stabilize exchange rates but may deplete foreign reserves. External shocks can disrupt trade patterns and influence exchange rates. Managing these drivers is essential for maintaining a stable and competitive trade environment in Uganda.

## **5.2 Conclusion**

In conclusion, the research findings based on extensive secondary data analysis in Uganda shed light on the intricate dynamics of foreign exchange rate fluctuations and their profound impact on trade and the economy from 2018 to 2022. These findings underscore the significance of a stable exchange rate for trade competitiveness and economic stability. While Uganda has made progress in managing its balance of payments, controlling inflation, and adjusting interest rates,

persistent challenges such as forex market regulation, export performance, and the implications of an ambitious infrastructure program persist. Addressing these challenges effectively is imperative for Uganda to navigate foreign exchange rate fluctuations, enhance trade competitiveness, and promote long-term economic resilience.

### **5.3 Recommendations**

The study recommends the need for the government of Uganda to enhance export diversification and value addition to mitigate the adverse effects of foreign exchange rate fluctuations. Uganda should prioritize efforts to diversify its export base and add value to its products. This entails promoting sectors beyond traditional exports like coffee and oil and investing in value addition processes. By doing so, Uganda can reduce its dependency on a limited range of commodities vulnerable to global price volatility.

The study also recommends the need to strengthen forex market regulation to address the challenges posed by foreign exchange rate fluctuations. Implementing measures to limit excessive repatriation of forex, monitor speculative activities, and encourage the use of the Ugandan Shilling for local transactions can help stabilize the exchange rate and reduce unnecessary volatility.

The study further recommends the need to promote stable monetary policies to attract foreign investment and reduce the risk of abrupt exchange rate fluctuations. The central bank should continue to pursue prudent monetary policies aimed at maintaining stability in interest rates. A predictable and stable interest rate environment can attract foreign investment and reduce the risk of abrupt exchange rate fluctuations.

Furthermore, the study recommends that Uganda should carefully manage its ambitious infrastructure program, taking into account its implications for the foreign exchange market. Adequate planning and coordination are essential to ensure that the required foreign exchange for infrastructure projects is available without causing undue shocks to the economy.

The study also recommends the need to improve the performance of Uganda's exports by focusing on value addition and quality. This can be achieved through targeted investments in infrastructure, technology, and skills development. Additionally, efforts should be made to

explore new export markets and diversify product offerings to reduce reliance on a limited set of exports.

More so, the study recommends that Uganda should continue to monitor and manage its current account balance to prevent excessive demand for foreign exchange. A persistent current account deficit can lead to a shortage of foreign exchange, putting pressure on the exchange rate. Sound fiscal and trade policies should be implemented to maintain a sustainable balance of payments.

In addition, the study recommends the need for a comprehensive review of forex market regulations to ensure they are effective in curbing speculative activities and excessive repatriation of foreign exchange. This may include setting limits on the amount of forex that can be repatriated, exchanged, or held as cash at any one time, in line with international best practices.

The study also recommends the need for ongoing collaboration between relevant government agencies, the central bank, and the private sector to address the challenges posed by foreign exchange rate fluctuations. This collaborative approach should involve regular dialogue and information sharing to develop effective strategies for managing exchange rate risks and enhancing trade competitiveness.

Last but not least, the study recommends the need to enhance efforts to attract foreign direct investment (FDI) by ensuring exchange rate stability and predictability. A stable exchange rate environment is crucial for attracting long-term foreign investment in Uganda. The government should create an attractive investment climate and provide guarantees against arbitrary exchange rate fluctuations to instill confidence in foreign investors.

Finally, the study recommends that Uganda should continue to invest in infrastructure development but do so prudently, taking into consideration its forex requirements. The government should explore financing options that minimize the need for excessive forex and ensure that infrastructure projects do not strain the country's foreign exchange reserves. This may involve exploring partnerships with international development organizations and private sector investors.

#### **5.4 Areas of further research**

The study sought to examine the effect of foreign exchange rate fluctuations on trade in the last five years (2018-2022) in Uganda. The study recommends that an in-depth study should be carried out on other variables that affect trade and exchange apart from those considered in the model specification. The study recommends other studies to build on the study findings by incorporating the omitted variables.

This study also focused on the US Dollar as the exchange rate currency. A further study should be conducted on other foreign currencies that form markets for Uganda's exports like the Pounds and Euros.

This study was carried out on trade and exchange to Uganda. Further research should be done on trade and exchange in other parts of the East African Community.

## REFERENCES

- Bank of Uganda (June, 2022). *State of the Economy Report*. Bank of Uganda Annual Report.
- Eberhard-Ruiz, A. (2022). The Impact of Armed Conflict Shocks on Local Cross-Border Trade: Evidence From the Border Between Uganda and the Democratic Republic of Congo.
- Gourinchas, P. O. (2021). The dollar hegemon? Evidence and implications for policymakers. In *The Asian monetary policy forum: Insights for central banking* (pp. 264-300).
- Guzman, M., Ocampo, J. A., & Stiglitz, J. E. (2018). Real exchange rate policies for economic development. *World development*, 110, 51-62.
- Gyourko, M., & Berghahn, V. (2020). “A Somewhat Awful Procedure”: Otmar Emminger, the West German Bundesbank, and the Final Days of Bretton Woods (1968-1973).
- Ilzetzi, E., Reinhart, C. M., & Rogoff, K. S. (2022). Rethinking exchange rate regimes. In *Handbook of international economics* (Vol. 6, pp. 91-145). Elsevier.
- Katusiime, L. (2018). Investigating spillover effects between foreign exchange rate volatility and commodity price volatility in Uganda. *Economies*, 7(1), 1.
- Mallory, C. (2023). *The Paradox of the Green Energy Revolution: Does Chinese Cobalt Mining in the Democratic Republic of the Congo Undercut Benefits of Green Energy?* (Doctoral dissertation, The Ohio State University).
- Naef, A. (2022). *An Exchange Rate History of the United Kingdom: 1945–1992*. Cambridge University Press.
- Ntshwe, I., & Garidzirai, R. (2021). Exploring the influence of commodity prices, real exchange rate and trade openness on economic performance in an emerging country. *International Journal of Financial Research*, 12(5), 1-9.
- Oke, M. O., & Adetan, T. T. (2018). An empirical analysis of the determinants of exchange rate in Nigeria. *International Journal of Scientific Research and Management (IJSRM)*, 6(05).

Parshotam, A., & Balongo, S. (2020). Women traders in East Africa: The case study of the Busia One Stop Border Post.

Ruzekova, V., Kittova, Z., & Steinhauser, D. (2020). Export performance as a measurement of competitiveness. *Journal of Competitiveness*, 12(1), 145.

Uganda Bureau of Statistics (2022). *UBOS Statistical Abstract 2022*.

Uroos, A., Shabbir, M. S., Zahid, M. U., Yahya, G., & Abbasi, B. A. (2022). Economic analysis of corruption: evidence from Pakistan. *Transnational Corporations Review*, 14(1), 46-61.



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TO WHOM IT MAY CONCERN

Name: BAGUMA KATHIN FREDRICK Reg. No. S20B34/011

A bachelor's student who is seeking permission from your office to collect data for his/her dissertation titled

"FOREIGN EXCHANGE RATE FLUCTUATIONS AND THEIR EFFECT ON TRADE IN THE  
LAST FIVE YEARS (2018-2022)"

We shall be grateful if you could render assistance to him/her in collecting the necessary data for his/her dissertation

The Uganda Christian University School of Business thanks you in advance

Mukisa Simon Peter  
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