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THE ROLE OF THE MONEY MARKET IN ECONOMIC DEVELOPMENT OF UGANDA

BY

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DECLARATION

To the best of my knowledge, I Ritah Karungi, hereby acknowledge that this is an original research, and has never been presented in any institution for an academic award or any other purpose. I therefore present it to Uganda Management Institute as a partial fulfillment for the award of a Masters Degree in Management Studies (financial management).

Signature: …………….……………….

Date: …………………....………

APPROVAL

This dissertation has been submitted to Uganda Management Institute for examination with our approval as supervisors.

Signed:…………………………………………….. Date:…………………………..

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Signed:…………………………………………….. Date:…………………………..

MISS JEMIMAH NINSIIMA

Uganda Management Institute

DEDICATION

Most importantly I dedicate this piece of work to my loving husband Eric Butime, my son Elijah

Butime and my entire family, without whose support it would never have been completed.

And to all the people that contributed in one way or another to this study, may the almighty God

bless you!

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CHAPTER ONE

INTRODUCTION

1.1   Introduction

The role of money market in economic development continues to attract increasing attention both in academia and among policy-makers since the money market is a key component of the financial system as it is the fulcrum of monetary operations conducted by the central bank in its pursuit of monetary policy objectives (Ndikumana 2010). Evidence from recent empirical studies suggests that deeper, broader, and better functioning money markets can stimulate higher economic growth (Levine, Loayza and Beck 2000; Beck, Levine, and Loayza 1999; King and Levine 2010a, 2010b).

Although evidence on Africa is still limited, the results from existing empirical work support the view that money market has a positive effect on economic growth in African countries (Allen and Ndikumana 2000; Gelbard and Leite 1999; Odedokun 1996; Spears 2012). Therefore this research study will be aimed at assessing the role of money markets in economic development in Uganda focusing on Bank of Uganda. Money markets was conceived as the independent variable while as economic development was conceived as the dependent variable as illustrated in the conceptual frame work. This chapter dealt with the background to the study, statement of the problem, the purpose, objectives of the study, research questions, hypothesis, justification of the study, scope of the study and operational definitions.

1.2   Background to the study

This section defined the historical, theoretical, conceptual and contextual backgrounds in relation to money markets and economic development in Uganda.

1.2.1 Historical background

According to Burgess (1927) Post reforms age in India over the past 20 years has witnessed marvelous increase of the Indian money markets. Banks and other financial institutions have been able to meet the high opportunity of short term financial support of important sectors like the industry, services and agriculture. It performs under the regulation and control of the Reserve Bank of India (RBI). In the opinion of Raymond Goldsmith (1969) the Indian money markets have also exhibit the required maturity and flexibility over the past two decades. Decision of the government to permit the private sector banks to operate has provided much needed healthy competition in the money markets resulting in fair amount of improvement in their performance.

In London during the 20th century, the Money markets denoted inter-bank market where the banks borrow and lend between themselves to meet the short term credit and deposit needs of the economy. Short term normally covers the time period up to one year. The money market operation help the banks rush over the provisional mismatch of funds with them. In case a particular bank needs funds for a few days it can lend from another bank by paying the strong-minded interest rate. The lending bank also gains as it is able to earn interest on the funds lying idle with it. In other words money market provides avenues to the players in the market to strike balance between the surplus funds with the lenders and the obligation of funds for the borrowers.

In a study by Cole (1995) on money markets in Asia, the key to understanding the development of money markets was dependent on government policy. Government policy, which responds to the needs of the country, was seen as a major hindrance to development of money markets. The study focused on a group of countries that were put into categories indicating the basic financial

policy stance of their governments. These countries included Singapore, Hong Kong, Malaysia and Korea amongst others.

Cole & Slade (1999) looked at the role of the government in the money market from an Indonesian perspective. The study concluded that the reason for the inefficiency of the money market was that it was still hampered by central bank management of the exchange rate and the deviation of key interest rates from market forces. Accordingly, the Indonesian money market was dominated by a small number of state-owned banks, which accounted for as much as 70% of loans and deposits. This is reminiscent of many African developing nations whose markets are still repressed and therefore function inefficiently. Therefore there is growing need for a degree of liberalization to enhance the performance of the money market.

In a review of the money markets in Malaysia, See-Yan & Fah (1995) suggested that further deregulation of the banking institutions would enhance competition and strengthen the linkages among money market rates, deposit rates, and loan rates. Their empirical results however showed that the movements of interbank rates fluctuated randomly between 1979 and 1984 and therefore the money market was inefficient. According to Yap et al (1997) based on cointegration tests on the money market in the Philippines, the hypothesis that distortions were introduced by the imposition of interest-rate ceilings and were reduced with the introduction of the liberalization program in 1980 is confirmed. They find that the market rates are co integrated with the reference rate after 1981.the study also notes that the central bank in the Philippines has placed greater weight on stability and this has resulted in an oligopolistic structure in the financial system.

Callier (1995) advances that Africa has been carrying out financial deepening since 1965 though it still lags behind compared to the rest of the world. However, the study finds some links between financial development and growth and identifies the obstacles to the development of money markets in Africa. It concludes that there are three main components of a policy towards the development of money markets in Africa. These include sound macroeconomic management; promotion of transparency and information, and of incentives to act upon available information; and institution building (regulatory and prudential framework, strengthening of professional bodies, improvement and modernization of the payment system and of the clearing and settlement procedures for securities transfers.

According to Cook & LaRoche (1998) the South African money market has been developing rapidly over the years laying an important foundation for the implementation of a pro-active fiscal policy, and a prudent monetary policy. There has been a significant growth in its size over the past ten years, in particular, volumes of outstanding amounts of Treasury Bills and Negotiable Certificates of Deposit traded increasing. The ratio of Treasury Bills traded to GDP was 1.6% at the end of the third quarter in 2003 and this ratio has increased, on average, to about 2.5% end of the third quarter of 2013. The ratio of Negotiable Certificates of Deposit plus large banks promissory notes to GDP has also been increasing over the years from 10.9% in 2003 to 17.3% at the end of the third quarter of 2013. Though it is small with reasonable liquidity and a developed infrastructure, this money market has been labeled as an emerging market, with its level of development of great significance in the reform of the financial system, the operation of commercial banks, and the conduct of monetary policy of the central bank.

In Uganda, according to Imam (2004) there are four major functions of the money market. These are that interest rates on money market instruments serve as reference rates for pricing all debt instruments and government or central bank money market instruments are used as tools of monetary policy. Money market instruments permit the liquidity management of economic actors offering returns on short term cash surplus positions and a way to finance short term cash deficit positions (Obstfeld, 2014). Longer term lending is financed through short term interbank markets when financial intermediaries transform maturities. Furthermore the Ugandan money market is monetary system that involves the lending and borrowing of short term funds. Ugandan money market has seen exponential growth just after the globalization initiative in 1992. It has been observed that financial institutions do employ money market instruments for financing short-term monetary requirements of various sectors such as agriculture, finance and manufacturing. The performance of the Ugandan money market has been outstanding in the past 20 years.

Central bank of the country - the Bank of Uganda (BoU) has always been playing the major role in regulating and controlling the India money market. The intervention of Bank of Uganda (BoU) is varied - curbing crisis situations by reducing the cash reserve ratio (CRR) or infusing more money in the economy. Money markets play a key role in banks' liquidity management and the transmission of monetary policy. In normal times, money markets are among the most liquid in the financial sector. By providing the appropriate instruments and partners for liquidity trading, the money market allows the refinancing of short and medium-term positions and facilitates the mitigation of your business' liquidity risk. The banking system and the money market represent the exclusive setting monetary policy operates in. A developed, active and efficient interbank market enhances the efficiency of central bank's monetary policy,

transmitting its impulses into the economy best thus, the development of the money market smoothes the progress of financial intermediation and boosts lending to economy, hence improving the country's economic and social welfare. Therefore, the development of the money market is in all stakeholders' interests: the banking system elf, the Central Bank and the economy on the whole.

Lastly, financial openness is often regarded as providing important potential benefits. Access to money markets expands investors' opportunities for a potential for achieving higher risk-adjusted rates of return. It also allows countries to borrow to smooth consumption in the face of adverse shocks, the potential growth and welfare gains resulting from such international risk sharing can be large (Obstfeld, 1994). It has also been argued that by increasing the rewards of good policies and the penalties for bad policies, free flow of capital across borders may induce countries to follow more disciplined macroeconomic policies that translate into greater macroeconomic stability. An increasingly common argument in favour of financial openness is that it may increase the depth and breadth of domestic financial markets and lead to an increase in financial intermediation process by lowering costs and "excessive" profits associated with monopolistic or cartelized markets, thereby lowering the cost of investment and improving resource allocation.

Thus money market enables banks to match short-term assets and liabilities, dealers to finance their positions and non-financial corporations to smooth fluctuations in their working capital needs. Therefore the money market plays an integral role to the maintenance of macroeconomic and financial stability (Osazee, 2012). However, in spite of some of the essential functions that it

plays, many developing countries have neglected its role and importance especially towards financial development. The efficient operation of the money market is very crucial for any developing economy as it enables the large institutions to get easy access to cheap funds; hence making it possible for them to maintain the important balance between profitability and liquidity (Onyiuke, 2014). An improvement in the depth of financial markets, which comes about as a result of a well established and functioning money market, allows the economy to meet its capital needs.

1.2.2 Theoretical Background

The theoretical argument of linking the money market to economic development is that a well developed money market facilitates investment, mobilizes savings and enables trading. It performs several critical functions to enhance the efficiency of intermediation by reducing information transaction and monitoring costs. Therefore the study was based on McKinnon and Shaw's theory and Fry's theory.

According to McKinnon (1973) and Shaw's (1973) theory on interest rates, liberalization and economic development, it predicts that economic development is a positive function of real income and the real interest rate. Financial markets promote investment through debt intermediation and hence generate economic growth. The leading theory in identifying the impact of the money market on economic development is the McKinnon-Shaw theory of liberalization for financial markets. This is because money markets whose interest rates are allowed to be market determined are able to function better than those in which interest rates are set. McKinnon and Shaw in the early 70's, were the pioneers of the liberalization theory for financial markets in which they found that the reason for the poor performance of less developed

countries is as a result of the state of the domestic financial market. According to the arguments of the liberalization-theorists, the regulation of the Financial Markets leads to lower investment ratios and has adverse effects on growth. The financial market therefore, according to their view, should be liberalized to promote efficiency.

According to the Fry's theory on money market, interest rates and financial development, Fry (1997) highlighted that finance and financial institutions have become relevant in a world of positive information, transaction and monitoring costs and if monitoring costs are high, a sample debt instrument would dominate a more complicated state that resembles equity. His stand is that positive real interest rates act as inducement to savers and also enable banks to give credit to the most efficient firms which can make profits to pay the high rate of borrowing. Over the years, policies regarding financial development of emerging market economies have shifted towards market-based financial systems and lessons learnt from financial crises. The approach to financial policy in developing countries has shifted from mainly direct controls to more market oriented systems. As Fry (1988) stresses the role of money markets, he points out that the real rate of interest can be reduced by financial repression as liquidity preference pushes the real interest rate above its equilibrium level. He emphasizes that money markets in which interest rates are freely determined by interaction of supply and demand are few and far in between the developing world.

Fry (1988) asserts that a measure of financial intermediation often used is the real interest rate. When this rate hovers below its competitive levels this indicates the extent of financial repression. A positive real interest rate encourages financial savings and financial intermediation

leading to an increase in the supply of credit to the private sector and hence investment. According to Fry (1997) a key aspect of financial liberalization is the development of the money market in which the "independent" central bank will implement indirect monetary policy. In his view, the absence of progress in the areas concerning the effect of financial development on growth follows directly from the fact that no attention is paid to the nature of banking or financial markets.

Behavioral intention is a proximal antecedent to action (Fishbein & Ajzen, 1975), and as illustrated by the Theory of Planned Behavior (Ajzen, 1991), and the expectancy value theory, (Feather & Newton, 1982; Fishbein, 1963), the intention to participate in USE was measured from the recognition of existence of opportunities, and willingness to issue shares and Bonds as securities at the USE. This was also based on the understanding that the formation of a goal intention is a key act of willingness that promotes goal attainment as espoused by social cognitive theory (Bandura, 1997). These theories were selected because they have demonstrated success in numerous other studies and apply to a variety of behaviors and can be applied to predict behavioral intention, which according to some is "the single most important determinant of behavior" (Montano et al., 1997, p. 87).

Therefore this study was based on the Fry's theory on money market, interest rates and financial development which highlights that finance and financial institutions have become relevant in a world of positive information, transaction and monitoring costs and if monitoring costs are high, a sample debt instrument would dominate a more complicated state that resembles equity. The theory further states that the real rate of interest can be reduced by financial repression as

liquidity preference pushes the real interest rate above its equilibrium level. He emphasizes that money markets in which interest rates are freely determined by interaction of supply and demand are few and far in between the developing world.

1.2.3 Conceptual background

Conceptually, money market is defined as a mechanism which makes it possible for borrowers and lenders to come together thus in particular; it refers to a market for short-term funds (Shekhar and Shekhar, 2014). Therefore the working definition in this study was money market as the name given to the various firms and institutions which deal in various grades of near-moneys as a mechanism through which short-term loans are loaned and borrowed and through which a large part of the financial transactions of particular country or of the world are cleared.

Commercial papers are the means by which commercial houses, through their bankers (mostly merchant or investment banks) raise short-term funds of three to six months (Ezema, 2013). This is only possible if such funds attract interest rates less than bank overdrafts. The working definition in this study as regards to Commercial papers was means by which commercial houses, through their bankers (mostly merchant or investment banks) raise short-term funds of three to six months.

According to Botha (2008) a negotiable certificate of deposit (NCD) is a financial instrument issued by banks, acknowledging the deposit of a specific amount of money for a fixed period of time and at a certain interest rate.

In the opinion of Faure (2006) a treasury bill is a short term discount instrument issued by government and usually with a maturity of 91,182 and 273 days. The two main reasons why treasury bills (TBs) are issued are to finance part of government budget deficit and largely to refinance maturing issues. When TBs are primarily issued they are auctioned on a price basis and expressed in a rand percentage. The Treasury bill is the preferred instrument for open market operations of the Reserve Bank and accommodation by commercial banks.

Capital market has been broadly defined as an institution where medium and long term finance can be raised (Akingbohungbe. 1996). It can also be viewed as a network of specialized financial institutions, series of mechanism, process and infrastructure that facilitates the contact between suppliers and users of medium to long term capital for investment in the economy.

Economic development means an increase in the capacity of an economy to produce goods and services, compared from one period of time to another. Economic growth is a process by which a nation wealth increases over time. The most widely used measures of economic growth is the rate of growth in a country's total output of goods and services gauged by the gross domestic product (GDP); while on the other hand Economic development can also be referred to as the increase of per capita gross domestic product (GDP) or other measures of aggregate income, typically reported as the annual rate of change in the real GDP. Economic growth is primarily driven by improvement in productivity, which involves producing more goods and services with the same inputs of labour, capital, energy and materials (Jalloh, 2013). The working definition of Economic development was the means an increase in the capacity of an economy to produce goods and services, compared from one period of time to another.

Roux (2014) defines a bankers' acceptance as an instrument that offers companies an alternative option to overdraft facilities with commercial banks. With a BA, the purchaser or seller that requires temporary finance may draw a bill of exchange on their bank. The working definition of bankers' acceptance will be regarded as a short-term debt instrument issued by a firm that is guaranteed by a commercial bank which are similar to T-Bills and are frequently used in money market funds.

1.2.4 Contextual Background

The role of the financial market in the development of the real sector and the economy at large cannot be over-emphasized (Kehinde and Adejuwon, 2011). A critical characteristic of the money market is that it should deep and broad so as to absorb large volume of transactions without significant effects on security prices and interest. This characteristic requires that there exist many active market participants such that the transactions of an individual investor will have just infinitesimal effect on security prices and interest rates. The characteristic also requires that there are many varieties of securities so as to ensure that there are always alternative investment instruments available to satisfy the respective return-risk desires of investors in the market. A money market that has depth and breadth will be informationally as well as operationally efficient and will contribute significantly to the growth of the economy (Dabwor, 2010). Thus the existence of money market facilitates trading in short-term debt instruments to meet short term needs of large users of funds such as governments, banks, and similar institutions. Money market plays a key role in bank's liquidity management and the transmission of monetary policy. By providing the appropriate instruments and partner for liquidity trading, the money market allows the refinancing of short and medium term positions and facilitates the

mitigation of business liquidity risks. The banking system and the money market represent the exclusive setting in which monetary policy operates. Developed, active, and efficient interbank and money markets enhance the efficiency of central bank's monetary policy and the transmission of its impulses into the economy. Thus, the development of the money market smoothen the progress of the financial intermediation and boost lending to the economy, and improves the country's economic and social welfare. Well developed money markets exist in developed countries, particularly in the high income ones, while those in the low income countries mirror the state of their development. In the latter, the markets are narrow, poorly integrated, and in some instances, non-existent in the real sense of it (Ezirim and Enefaa, 2013).

Money markets play a key role in banks' liquidity management and the transmission of monetary policy (Rigg & Zibell, 2013), control of money supply and demand-pull inflation, determination of short-run interest rate (Ekmekcioglu, 2013). In normal times, money markets are among the most liquid in the financial sector. By providing the appropriate instruments and partners for liquidity trading, the money market allows the refinancing of short and medium-term positions and facilitates the mitigation of your business' liquidity risk. The banking system and the money market represent the exclusive setting monetary policy operates in. A developed, active and efficient interbank market enhances the efficiency of central bank's monetary policy, transmitting its impulses into the economy best (Rigg and Zibell, 2013). Thus, the development of the money market smoothes the progress of financial intermediation and boosts lending to economy (Ochei, and Osabuohien 2012), hence improving the country's economic and social welfare (Dabwor, 2010). Therefore, the development of the money market is in all stakeholders'

interests: the banking system itself, the Central Bank and the economy on the whole, thus prompting the researcher to carry out the research.

1.2   Statement of the Problem

Despite the Ugandan economy having experienced all phases of a typical business cycle from political independence in 1962 till date, various regimes and their policy makers attempted to manage the economy to ensure full employment, output and price stability. The management of the economy is based on various economic and socio-political conceptualization, formulation, strategies, programmes and inherent implementation methodologies. The linkage between the financial sector and economy performance can be captured by the relationship between money supply and Gross Domestic Product (MS-GDP ratio). In spite of the Ugandan economy having abundant human, material and natural resources and efforts by Bank of Uganda, the pace of economic development has been rather slow, and others have argued that the economy is experiencing underdevelopment when compared to the 1960s and 1970s (Ekpo, 2014).

However, the state of economic development of Uganda is still lacking in terms of per capita income, Gross Domestic Product (MS-GDP ratio), unemployment levels, poverty estimates which are evident as indicated in Annual Economic Performance Report (2013/14) that the Economy has declined from 5.8% in FY2012/13 to 3.4% in FY2013/14. the report further states that during FY2012/13, Uganda's economy continued its steady recovery from the second round effects of the global financial crisis, stagnation in the Eurozone and the recent hike in inflation. The economy later declined by 5.8% in real terms, which was higher than the projection of 5.1%. This decline also marked a significant negative improvement on the 3.4% achieved in FY2011/12. This decrease in growth was mainly driven by industry and services, which declined by 6.8% and 6.5%. The recent poverty estimates show that the share of Ugandans in absolute

poverty has reduced from more than half (56.4 percent) in 1992/93 to less than a fifth (19.7 percent) in 2012/13 (Annual Economic Performance Report, 2013/14).

Thus the efforts of bank of Uganda to capitalize on Money market serve as the first failure step of the transmission of monetary actions to the economy. Therefore, there was the need to examine this crucial money market and evaluate its performance in terms of its contribution to economic development thus creating a need for this research which was intended to establish the effect of money market on economic growth.

1.3   Purpose of the Study

The purpose of the study was to establish the effect of money markets on economic development in Uganda.

1.4   Objectives of the Study

This study was guided by the following research objectives:

 i.   To establish the effect of Treasury bills on economic development in Uganda.

 ii.   To assess the effect of Commercial papers on economic development in Uganda.

 iii.   To find out the effect of interbank deposit on economic development in Uganda.

1.5   Research Questions

The study aimed at answering the following questions

 i.   What is the effect of Treasury bills on economic development in Uganda?

 ii.   What is the effect of Commercial papers on economic development in Uganda?

 iii.   What is the effect of interbank deposit on economic development in Uganda?

1.6   Hypothesis of the study.

H_1.   Treasury bills have an effect on economic development in Uganda

H_2.   Commercial papers have an effect on economic development in Uganda

H$_3$.   Interbank deposit affects economic development in Uganda

1.7   Conceptual Frame Work

The various conceptual links that are assumed to exist between money markets (independent variable) and economic development (dependent variable) are summarized the diagram below. In effect this is the guiding conceptual framework for the study.

Figure 1:   Conceptual framework showing the relationship between money markets (independent variable) and economic development (dependent variable) and the intervening variables in Uganda.

INDEPENDENT VARIABLE   **DEPENDENT VARIABLE**
 Money markets   **Economic Development**

Treasury bills ✓ Inflation ✓ Equity indices ✓ Business surveys **Commercial papers** ✓ Direct Paper ✓ Dealer Paper	→	**Indicators of economic development** • Rise in GDP per capita
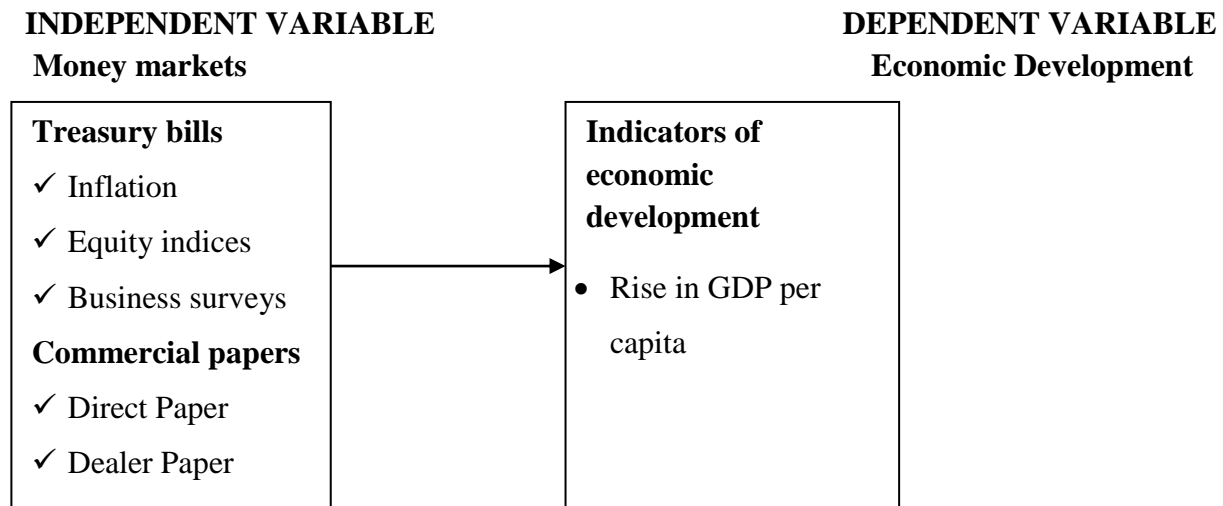
Source: *Variables developed from literature review are based on the works of De Young & Karin (1999); Wang J.C. (2003); De Young & Rice (2003); Allen & Santomero (1996), Smith et al (2003), Van Horne (1980) and others.*

From the conceptual framework in Figure 1 above; money markets was considered as the independent variable which was studied in terms of the different types of money market instruments such as treasury bills which was hypothesized in form of inflation, equity indices

and business surveys; commercial papers was hypothesized in form of direct paper, and dealer paper and lastly interbank deposit was hypothesized in form of interest rates guide policy.

Economic Development is hypothesized as the dependent variable and operationalised in terms of Indicators of economic development such as rise in GDP per capita, Increase in GNP, Economic Policy and Debt, Growth in the Financial Sector, Private Sector and Trade growth, and lastly Unemployment.

1.8   Significance of the Study

The study would be a valuable source of information to policy makers in Uganda as well as other emerging and developing economies whose money markets are still under developed. Policy makers need information on the precise effects of money markets on economic development in order to formulate, evaluate and prescribe policies for their respective countries.

This study may also act as a good source of information for other researchers, as the results that emerge from the study may inform debates on this subject. The study therefore may constitute an attempt to add to the existing mass of literature for future scholars and researchers and also giving insightful lessons for the money markets.

The study may explore the impact or effectiveness of money market instruments on stabilization of the economy, though the scope of study might be limited to the financial sector. It is hoped that the exploration of his sector may give a broad view of money market instruments on economic stabilization it may serve as an inspiration to other potential students and institutions

or individuals as it may contribute to practical life, knowledge advancement and stabilization of Ugandan economy.

1.9 Justification of the Study

A focus on financial systems and development suggest that money markets have an important role they play in financial development (World Banks World Development Report, 2010). The report advances that such markets can provide a non-inflationary way to finance government deficits, allow governments to implement monetary policy through open market operations and provide a market based reference point for setting other interest rates.

Cole et al (1995) advances that in early literature on financial development, the role and contribution of the money market towards the development of financial systems in developing countries like Uganda has been largely ignored. However, as a result of the growing awareness of the need for money markets in the development of market oriented financial systems, these markets have been receiving increasing attention in recent years especially in developing countries where the approach to financial policy has shifted from mainly direct controls to more market oriented systems.

Financial liberalization is one of the factors that has accounted for the observed growth of financial systems in many countries in terms of the number of institutions and size of assets. The softening of entry conditions for banks and other financial institutions as well as the liberalization of interest rates has stimulated financial markets especially the money market. Therefore it was imperative to establish the relationship between money markets and economic

development in Uganda and yet no study had been undertaken on understanding the relationship between the two variables in this institution, which indicated that there was need for a comprehensive study to establish the relationship between money markets and economic development in Uganda.

1.10 Scope of the Study

1.10.1 Content scope

The study fundamentally dealt with the relationship between the money markets and economic development in Uganda focusing on the case study of Bank of Uganda. The economy is a large component with lot of diverse and sometimes complex parts; this research work will only look at a particular part of the economy (the financial sector). This work could not cover all the facets that make up the financial sector, but looked at the money market and its instruments as being used by the government for the stabilization of the economy on its road to industrialization and economic development. In other words, its focus was not on the entire financial, which was a combination of both money and capital markets, but was only delve exclusively on the money market.

1.10.2 Geographical scope

The economy is a large component with lot of diverse and sometimes complex parts; this research work only looked at a particular part of the economy (the financial sector).

1.10.3 Time scope

The study shall limit itself to the period between 2008-2013. This period was Central because it was the period that Bank of Uganda issued a 5 year Financial Markets Development Plan. The empirical analysis and estimation covers the period between 1981 and 2013.

1.11   Operational Definitions

Economic development is thus the process of expansion of this financial superstructure therefore savings can be mobilized and credit allocated efficiently across space and time to generate maximum rate of return on investment (McKinnon, 2013).

CHAPTER TWO

LITERATURE REVIEW

2.1   Introduction

This chapter will entail the introduction of the review of literature between money markets and economic development, the theoretical review, the actual thematic review based on study objectives and summary of the literature. Journals, text books, Web sites/internet, newspaper articles, abstracts will be the sources under review. McKinnon and Shaw's theory, Fry's theory and Neo-Structuralisms Views was also be reviewed.

2.2   Theoretical review

2.2.1   McKinnon and Shaw's theory

The theoretical literature predicts that financial development is a positive function of real income and the real interest rate. Financial markets promote investment through debt intermediation and hence generate economic growth. The leading theory in identifying the impact of the money market on financial development is the McKinnon-Shaw theory of liberalization for financial markets. This is because money markets whose interest rates are allowed to be market determined are able to function better than those in which interest rates are set. The empirical literature in subsequent sections will also enrich our understanding of drivers of financial development and the variables to include in modeling financial development.

McKinnon and Shaw in the early 70's, were the pioneers of the liberalization theory for financial markets in which they found that the reason for the poor performance of less developed countries is as a result of the state of the domestic financial market. According to the arguments of the liberalization-theorists, the regulation of the Financial Markets leads to lower investment ratios

and has adverse effects on growth. The financial market therefore, according to their view, should be liberalized to promote efficiency.

Under the McKinnon-Shaw frame work the financial variable which is prevented from being in equilibrium is the interest rate on bank deposits, which translates to that on bank loans, and the cause of this repression is assumed to be government policy which deliberately prevents banks from adjusting interest rates up to equilibrium (Fry, 1988).

Assuming all savings are placed in bank deposits which banks then pass on in the form of loans to investors and that investment is financed by bank credit, a basic model of financial repression is shown in below

Real rate of   S (Y0)

Interest (r − π) ------ID------------------------------

re

        S0=I0   S=I

ro
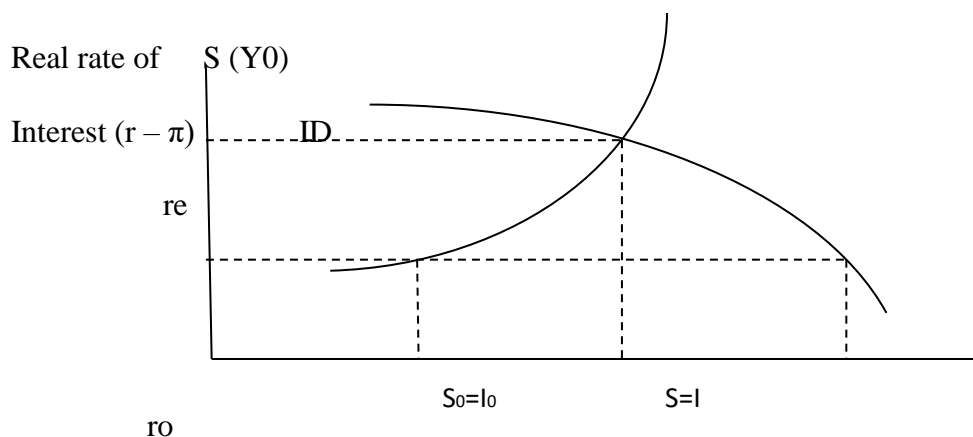
(Adapted from Fry, 1988)

The above graph is based on the idea that both saving and investment are functions of a real interest rate. In the graph, suppose that a ceiling has been imposed on the rate of interest at r0 and that the banks' lending and deposit rate are equal. At this low rate of interest, desired investment will be I0. However the volume savings at interest rate r0 is only S0 and actual investment is constrained to I0. This means at a low level of interest rate, the volume of savings

will be insufficient to provide enough bank credit to finance the levels of investment which firms desire and banks or the government will have to ration credit by one means or another. With financial liberalization interest rates are allowed to operate at equilibrium drawing more savings and increasing funds for investment purposes (Fry, 1988).

McKinnon and Shaw (1973) argued that financial development could cause economic growth especially via the effective resource allocation channel, unless the government has direct interventions on financial system that degenerate the resource allocation. Shaw (1973) defined financial deepening as an expansion of the real size of the financial sector encompassing a broad spectrum of financial services and operations. His focus was on financially repressed developing nations and the need for them to allow interest rates to be market determined. This would contribute towards low savings, credit rationing and low investment. Shaw argued against artificial ceilings on interest rates which discouraged the efficient allocation of resources and was of the opinion that financial repression would lead to dualism in which firms tend to choose capital intensive projects whereas those not in favored by policy will only be able to implement high yield projects with short maturities.

Financial liberalization, according to Shaw, would lead to an increased role of financial intermediaries. Shaw contends that a change in policy leading to financial liberalization not only increases the size of the financial market, as measured by society's money holdings but, more importantly, it provides profitable opportunities for new firms to enter the financial sector. Shaw (1973)'s theory contends that with financial repression financial prices are distorted and the real rate of growth and real size of the financial system are reduced. Shaw's hypothesis dealt on the

premise that demand for real money balances (m/p), as a proxy for financial development, depends on the real income (Y), the ratio of gross investment to gross national product (i/y) and the real deposit interest rate (d – π)where d is the nominal deposit rate and (π) is the expected rate of inflation. Shaw concluded that deepening of finance increases the real size of the monetary system and generates opportunities for the profitable operation of other institutions.

McKinnon's (1973) proposition was that a rise in the interest rate would lead to an increase in the volume of financial savings through financial intermediaries and thereby raising investment funds. Higher interest rates increase the attractiveness of savings relative to consumption spending encouraging more individuals to substitute current savings for current consumption. Therefore, as more savings are mobilized, investment in financial assets increases leading to an increase in the level of financial depth in the economy (Dornbush & Fischer, 2010). The role of money and capital markets in the development process has been the focus of a lot of literature. Harris (1979) points out that a common approach by policy makers in developing nations is termed money and capital market simulation. This involves funds being raised through a wide variety of taxes and directed to investors through development banks at rates of interest that are below equilibrium. McKinnon and Shaw however oppose this approach and emphasize that growth in investment and real output is limited by these policies as they repress the development of genuine money and capital markets, promote the use of inferior technologies and are inefficient.

2.2.2 Fry's theory

Fry (1997) highlighted that finance and financial institutions have become relevant in a world of positive information, transaction and monitoring costs and if monitoring costs are high, a sample debt instrument would dominate a more complicated state that resembles equity. His stand is that positive real interest rates act as inducement to savers and also enable banks to give credit to the most efficient firms which can make profits to pay the high rate of borrowing.

Over the years, policies regarding financial development of emerging market economies have shifted towards market-based financial systems and lessons learnt from financial crises. The approach to financial policy in developing countries has shifted from mainly direct controls to more market oriented systems. As Fry (1988) stresses the role of money markets, he points out that the real rate of interest can be reduced by financial repression as liquidity preference pushes the real interest rate above its equilibrium level. He emphasizes that money markets in which interest rates are freely determined by interaction of supply and demand are few and far in between the developing world.

Fry (1988) asserts that a measure of financial intermediation often used is the real interest rate. When this rate hovers below its competitive levels this indicates the extent of financial repression. A positive real interest rate encourages financial savings and financial intermediation leading to an increase in the supply of credit to the private sector and hence investment. According to Fry (1997) a key aspect of financial liberalization is the development of the money market in which the "independent" central bank will implement indirect monetary policy. In his view, the absence of progress in the areas concerning the effect of financial development on

growth follows directly from the fact that no attention is paid to the nature of banking or financial markets.

2.2.3 Neo-Structurilists Views

Whilst the McKinnon-Shaw school argued that financial saving, investment and economic growth were raised as a result of increased deposit rates, little attention was given to the existence of unorganized money markets (UMMs) in developing countries. A significant proportion of people (particularly rural) within these countries existed outside the formal banking system (Ghatak, 1975). According to Ghatak (1975) UMMs were more efficient than the formal financial institutions because they could lend on a one on one basis. However in a situation where UMMs were substituted for time deposits, for example, when deposit rates increased, investment and economic growth declined generating a rise in the price level. Therefore interest rate liberalization tended to be stag factionary.

Neo-structuralism led by Lance Taylor considered unorganized money markets (UMMs).UMMs were a gateway and main source of fund for poor borrowers who could not obtain loans due to their inability to provide sufficient collateral and other formalities. This made the formal financial institutions in developing nations less favorable and deemed the UMMs more profitable to the lender as they could charge higher interest rates than formal institutions. Therefore UMMs in developing countries often act as alternative to the formal banking system (Van Wijenbergen 1983; Taylor, 1983). Myint (1984) advances that neo structuralists therefore argued that interest rates charged by the non-institutional lenders were high. This was mainly because of the shortage of financial saving partially due to a substantial proportion of saving in rural or peasant sectors being in the form of hoarding of gold and jewellery. Therefore it was proposed that more

efficient financial intermediaries be which could offer attractive financial products be established to increase financial saving and hence bring about a reduction in interest rates.

Therefore this study will be based on the Fry's theory on money market, interest rates and financial development which highlights that finance and financial institutions have become relevant in a world of positive information, transaction and monitoring costs and if monitoring costs are high, a sample debt instrument would dominate a more complicated state that resembles equity. the theory further states that the real rate of interest can be reduced by financial repression as liquidity preference pushes the real interest rate above its equilibrium level. He emphasizes that money markets in which interest rates are freely determined by interaction of supply and demand are few and far in between the developing world.

2.3   The relationship between Treasury bills and economic development

Treasury bills familiarly known as T-Bills, are negotiable non-interest bearing securities issued by governments, with original maturities of three months, six months and one year. They represent direct obligation of the government and therefore have no credit risk. When the government wants to borrow to meet its budgetary needs, treasury bills are then issued. Treasury bills are particularly important to, and are also popular with commercial banks (Ezema, 2010). Moreover, treasury bills count as liquid assets of commercial banks while at the same time earning handsome interest rate for the holders. And as such, a treasury bill is a very secured means of holding short-term assets as Ezema, (2010) rightly asserts. They are regarded as investments that carry low inherent credit risk. Put in simple terms, T-Bills are arguably the safest form of indigenous investment available.

Ogunleye (1995) reports that among other factors, bank profitability is affected by monetary authorities' policy measures on liquidity ratios and according to him, an increase in the stipulated liquidity ratio exerts a negative influence on bank profitability. This is so because banks would have to hold some of their assets in treasury bills and certificates, the returns of which are quite below market rates. In his study, Short (1979), used both central bank discount rates and the interest rates on long-term government securities. He found that these hypotheses had a significant positive relationship with profitability. Short's hypothesis was further tested by Bourke (2010) and Molyneux and Thornton (2012). The findings of these two studies also found that investment in government securities had a significant positive relationship with the profitability of commercial banks.

According to Rehana and Rizwana (1998) an increase in bank investment in the government securities and treasury bills, is expected to affect the bank advances positively as it curtails the supply of advances in the open market. The level of' economic activity is expected to make a positive impact on bank advances as it not only increases the demand for advances but the supply of loanable funds as well. According to Rehana and Rizwana (1998) study, although statistically insignificant the impact of bank (statutory) investment in government treasury bills and securities on the spread was positive. These results show that the direct impact of a tight monetary policy on the spread was negligible.

Uremadu's (2013) model depicted the liquidity structure of the Nigerian financial system as represented by components of money market instruments which comprised treasury bills(TBs,

treasury certificates (TCs), eligible development stocks (EDS), certificate of deposits(CDs), commercial papers (CPs) and bankers acceptance (Bas). Regression results indicated that commercial papers had the greatest significant impact on bank liquidity (proxy for financial system liquidity) in Nigeria, followed by TCs, EDS and TBs in descending order of magnitude. As such, portfolio management as an aspect of treasury management function involves a decision to invest excess cash generated, the amount to be invested, and the type of securities, or placements in which the funds are to be invested (Ezema, 2010). The type of security in which cash is to be invested will depend on the expected cash flow patterns and the certainty of these cash flows. If future cash flow pattern are certain, the portfolio manager can time the maturities of securities to coincide with dates when funds are needed. To illustrate, if there is a fixed deposit which is certain to mature in three months' time, part of the portfolio investment can be tailored to mature in three months' time. In such a case, the cash will be invested in treasury bills; interbank placements may be preferred, if a reasonable amount of deposit is on call, such as seven days' call (Ezema, 2010). If, however, it is expected that a six months or three months deposit will be rolled over, the portfolio may be invested in a less marketable, but more earning-yielding assets and perhaps, more risky securities with a longer-term maturities like commercial papers, development stocks, treasury certificates of 180-day or 360-day maturities and bankers acceptances (Ezema, 2010 and Uremadu, 2006). When future cash flow is uncertain, the most important factor in security purchased becomes marketability as well as ability to easily convert into cash otherwise viewed as liquidity.

According to Cook and LaRoche (1998) some investment characteristics of treasury bills (TBs) exist that distinguish it from other money market instruments. Some degree of default risk exists

for even high grade money market instruments like commercial paper, but TBs are considered risk free since they are obligations of the government. In times of harsh economic conditions, the default risk of securities other than TBs increases which tends to raise the variance between the rates on these securities and that on TBs of comparable maturity. TBs can be converted into cash quickly at a low transaction cost because their market is highly organized and efficient. Income earned on TBs, unlike other assets, is exempt from income tax. Roux (2014) points out that the TB rate serves as a reference rate on which other money market assets' interest rates are determined and is also a benchmark indicator of market conditions in an economy.

As regards the study, Treasury bills play a key role in banks' liquidity management and the transmission of monetary policy (Rigg and Zibell, 2013), control of Treasury bills in money supply and demand-pull inflation, determination of short-run interest rate Ekmekcioglu (2013). In normal times, money markets are among the most liquid in the financial sector. By providing the appropriate instruments and partners for liquidity trading, the money market allows the refinancing of short and medium-term positions and facilitates the mitigation of your business' liquidity risk. The banking system and the money market represent the exclusive setting monetary policy operates in. A developed, active and efficient interbank market enhances the efficiency of central bank's monetary policy, transmitting its impulses into the economy best (Rigg and Zibell, 2013). Thus, the development of the money market smoothes the progress of financial intermediation and boosts lending to economy (Ochei, and Osabuohien 2012), hence improving the country's economic and social welfare (Dabwor, 2010). Therefore, the development of the money market is in all stakeholders' interests: the banking system itself, the Central Bank and the economy on the whole.

In Uganda, Treasury bills dominate the money market accounting for the largest portion of all government domestic debt (Musinguzi and Katarikawe, 2013). Its initiation in 2012 through an auction system provided the minimum market base necessary to facilitate the transition from direct to indirect monetary control. The 91- day TBs were offered to banks and to the non-bank institutions on a fortnightly basis, but the frequency later increased to a weekly basis. In January 2010, the term structure of the TB market was lengthened, with the weekly auction being augmented by a monthly allocation of 182-day and 273- day TBs and later by the 364-day TBs in December 2010. This continued until July 2000 when the frequency of the 182-, 273-, and 364-day TBs increased from a monthly to a weekly basis. Due to the enormous need to mop up excessive liquidity, the stock of TBs more than doubled from Shs 206 billion as at end-June 1999 to Shs 486 billion as at end- December 2000 (Musinguzi and Katarikawe, 2013).

Before 2012, Treasury bills had been used as a fiscal instrument to mobilize funds for the budget, and commercial banks had not been allowed to hold them. This new arrangement allowing banks to hold Treasury bills helped to improve BOU's liquidity management. In order to boost their incomes and profits, commercial banks have tended to invest more in relatively risk-free financial assets such as Treasury bills and foreign exchange than in credit extension. Open market-type operations conducted through Treasury bills (TB), BOU bills and repurchase agreements (repos) are the major monetary policy instruments. Of the three, the TB is the most commonly used (Musinguzi and Katarikawe, 2013). Between 2010-1998 the movements in interest rates for the Uganda 91-day Treasury indicated, volatilies in interest rates. While the observed fluctuations may partly be explained by the liquidity position of commercial banks (which are the major participants in the TB market), they have largely been attributed to

variations in the weekly issuance of Treasury Bills according to the desired developments in reserve money (see Bank of Uganda as Nanyonjo (2014) reveals.

In this study treasury bills will regarded as short-term (usually less than one year, typically three months) maturity promissory note issued by a national government as a primary instrument for regulating money supply and raising funds via open market operations. Issued through the country's central bank, T-bills commonly pay no explicit interest but are sold at a discount, their yield being the difference between the purchase price and the par-value (also called redemption value). This yield is closely watched by financial markets and affects the yield on municipal and corporate bonds and bank interest rates. Therefore the study addressed the relationship between Treasury bills and economic development.

2.4 The effect of Commercial papers on economic development

In many countries, the term commercial paper refers to promissory notes that have a fixed maturity of less than two hundred seventy days (Watson, 2010; Bernanke, 2010; Friedman and Kuttner, 2010 and 2010b; Kashyap, Stein and Wilcox, 2010). These negotiable instruments are issued by corporations or banking institutions in exchange for capital that can be used to meet short term financial obligations such as regular operating expenses. Less expensive than using a bank credit line and normally sold at a discount of face value, commercial paper is an extremely liquid market that is mutually attractive and beneficial to both issuers and investors. Due to the short time frame, commercial paper is routinely a very safe investment that very few companies default on (James and Wier, 2012; Mackie-Mason, 2012; Booth, 2012; Slovin et al., 2012; Billett, Flannery, and Garfinkel, 2003; Petersen and trajan, 2010).

However, since commercial paper is typically sold in denominations of one hundred thousand dollars or more, smaller investors must participate through money market funds. A type of mutual fund, money market funds pool money from different sources in order to invest in short term instruments with high yields. Although commercial paper is required by the Securities and Exchange Commission (SEC) to have terms of less than nine months, the majority of the notes are issued for 30-45 days. Due to the short and favorable credit terms, companies tend to issue commercial paper on a very frequent basis, which contributes to positive economic growth in these many countries. When the market for commercial paper slows, however, it can lead to a multitude of economic problems, including large increases in procurable interest rates, reduced production of goods and services, and loss of income for American companies. In addition, credit shortages often affect the housing, automobiles, and consumer spending industries.

However, this type of situation in the commercial paper market seldom occurs and, when it does, the market usually recovers within three months. Despite the normally secure behavior of these instruments, an adverse event did take place in the commercial paper sector in September 2008. Alongside other credit crisis events in the United States economy, the market for commercial paper uncharacteristically and effectively froze for about twelve hours, leading to a lack of available funds in the short term credit market (Second, Kashyap, Stein, and Wilcox (2012). As a result, the cost of borrowing rose, and even proven companies with outstanding credit ratings had difficulty acquiring short term loans to pay their rent, payroll, and other bills. In fact, the size of the commercial paper market shrunk by $110 billion, paving the way for average interest rates to rise from the customary 2% to a much higher 4.5% (Stigum, 2013, p. 639). The effects of the freeze were widespread and remain ongoing, touching even companies with very dependable

cash flows. Since the health of the commercial paper market is absolutely essential to the financial well being and existence of most corporations and financial institutions in the United States, it is important to keep the issuance of affordable short term credit instruments flowing smoothly.

In this study, Commercial paper accounts for a large and growing fraction of short-term corporate finance in Uganda. Despite its growing importance for corporate finance and despite the attention paid by macroeconomists to commercial paper as a leading economic indicator (Stock and Watson, 2013; Bernanke, 2013; Friedman and Kuttner, 2013; Kashyap, Stein and Wilcox, 2012), there has been virtually no econometric analysis of the characteristics of commercial paper issuers or the circumstances under which commercial paper issuance affects economic development. This is a surprising omission, given that commercial paper is the only form of publicly traded short-term debt placed by corporations thus being one of the objectives of the study. Therefore the study addressed the effect of Commercial papers on economic development

2.4   The relationship between interbank deposit and economic development

There are two interbank markets namely the bank/central interbank market also known as the cash reserve funds market and the bank/bank interbank market. The bank/central bank interbank market is a market in which flows of funds occur and is an administratively driven market. The policy of creating a liquidity shortage and supplying loans in the form of repurchase agreements at the repo rate has been adopted by central banks in many countries like South Africa. In order to make the repo effective, the reserve bank ensures that the banks are always indebted to it and in this way monetary policy is transmitted into the economy. At first instance, the repo rate has a

powerful influence on the bank/bank interbank market and then transmits into other money market rates and onto longer rates, asset prices, the exchange rate and finally price developments (Wilson, 2010).

Banks have settlement accounts they hold with the reserve bank and at the close of day, they have to clear these accounts. In order to do so, the deficit banks can either borrow from the reserve bank at the repo rate or from banks with surplus funds. However, since the only alternative is to borrow from the reserve bank, banks are obliged to compete against one another for excess cash reserve funds from surplus banks at the interbank rate which remains close to but below the repo rate. Therefore, the repo and interbank rates often move together. Figure 2.2 which shows the interbank rate and repo rate from 1997 to 2013 illustrates:
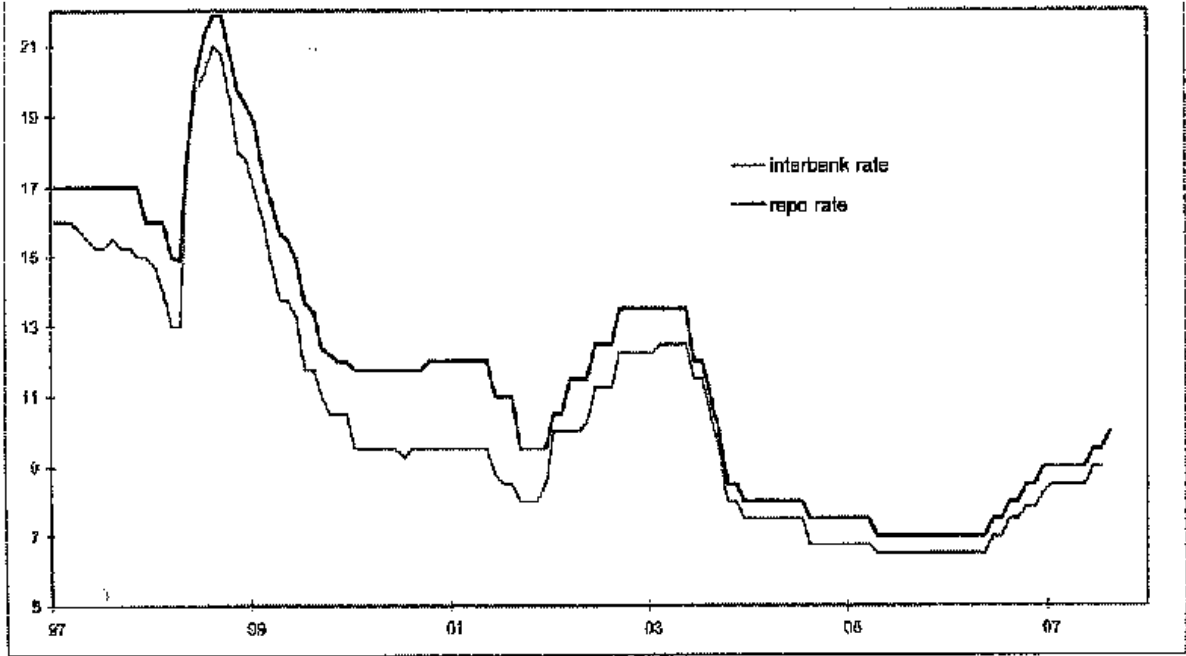
According to Goodfriend and Whelpley (1998) other money market rates are anchored to the base rate (repo rate) and determined according to the views of market participants of the current and future repo rates. The arbitrage that arises as a result of banks having the option to either

raise funds by issuing certificates of deposit (CD) or by borrowing daily over the term of the CD through the overnight repo rate, keeps the yields on alternative money market instruments in line. As a result of the views by market participants, current and expected reserve bank policies towards the repo rate become the key determinant of money market rates in generally.

Gidlow (2001:2) advances that flexibility, stability, liquidity, competitiveness as well as being able to quickly adjust to changes in banking liquidity are all characteristics of an effective interbank market. With an effective interbank market, any changes in the Reserve Bank's repo rate are quickly transmitted to interbank and other money-market rates. The more sensitive interbank rates are to changes in the repo rate, the easier it is for the SARB to influence money market rates by adjusting the repo rate. This ensures effective pricing in the money market as a whole.

According to this study, interbank deposit was considered dominantly as a money market section reserved for multiple and extensive interbank relationships that can generally take place on three divisions: spot and term deposit and loan markets, and financial derivative markets. Spot market is related to intraday transactions in payment systems, overnight and short term lending and borrowing, i.e. is assigned for short-term liquidity purposes.

2.4.1   Interest rates Guide policy

Interbank transactions are a known aspect of banking. According to Franklin et al (2008), in modern financial systems, interbank markets play at least two vital roles. Primarily, it is in such markets that central banks actively intervene to guide their policy interest rates (Franklin et al (2008): 1). Nevertheless, central banks plays a crucial role in the interbank markets, as they operate as granting short term collateralized loans to banks, which deposit the loan proceeds at

the central bank. It is the task of the banks to redistribute the liquidity through the money market to balance liquidity supply and demand on an ongoing basis. It can be stated that the central bank liquidity is the current account of the banks deposited at the central bank. Thus, as the recent turmoil resulted in a reluctance of redistribution of liquidity by banks, the function of central bank became much more significant in order for maintaining the function of the international interbank markets as the banks require central bank liquidity for their interbank payments.

In Uganda, high value payment transactions pass through the Uganda National Interbank Settlement (UNIS) System, also known as, the BOU Real Time Gross Settlement (RTGS) System. This advanced interbank electronic payment system facilitates safe, secure and real-time transmission of high value funds between accounts in different financial institutions which in turn facilitates economic development. It was implemented in February 2005 and was upgraded from a client/server based model to a web-based model in August 2009 (Bank of Uganda financial report, 2013/14). The system has improved efficiency in payment systems by mitigating settlement risk and eradicating time lag for settling high value and time critical payments. They include; clearing house balances, interbank transfers, government securities and money market transactions. The average daily processing involves 1200 transactions with a value of around 263 billion Uganda Shillings (Bank of Uganda annual report, 2013/14). To date, about 85% of large value and time critical payment transactions pass through the RTGS system leaving only 15% to pass through the clearing system.

2.6   Summary of the Literature Review

This chapter was about the theoretical review and related literature. The theoretical review focused on three theories that could be used to explain money markets and economic

development which included McKinnon and Shaw's theory, Fry's theory and Neo-Structurilists Views. These theories cited some factors that affect money markets and economic development, but in addition these theories had shown that some factors might not be related to money markets and economic development. Review of related existing literature indicated a strong the relationship between money markets and economic development. Although research seemed to give an effect of money markets on economic development in a number of countries and situations, no empirical evidence had been found in the literature focusing on the effect of money markets on economic development in Uganda. Hence the need for a comprehensive study on the topic which was aimed as assessing the role of money markets in economic development in Uganda.

CHAPTER THREE

METHODOLOGY

3.1   Introduction

This Chapter presents the methodology which was employed in conducting the study. The methodology was skewed towards the research objectives and questions as laid down in chapter one. This methodology included: The research design, study population, determination of the sample size, sampling techniques and procedure, data collection methods, data collection instruments, validity and reliability, procedure of data collection, data analysis and measurement of variables.

3.2   Research Design

The study adopted a qualitative case study research design as an approach to research that facilitated exploration of a phenomenon within its context using a variety of secondary data sources. This ensured that the issue was not explored through one lens, but rather a variety of lenses which allows for multiple facets of the phenomenon to be revealed and understood (Bell 2001:42). A case study is a research method involving an up-close, in-depth, and detailed examination of a subject of study (the case), as well as its related contextual conditions (Kushner, 2000). The reasons for selecting this type of research design is that case study design is considered when the focus of the study is to answer "how" and "why" questions; you cannot manipulate the behaviour of those involved in the study; you want to cover contextual conditions because you believe they are relevant to the phenomenon under study; or the boundaries are not clear between the phenomenon and context. In this regard Amin (2014) argued that qualitative designs help in giving detailed information.

3.3   Study Population

The study population constituted 290 both employees of Bank of Uganda, Insurance companies, Bank of Uganda, National Planning Authority, Ministry of Finance and economic planning and Commercial banks. Roscoe (1976) observes that any number beyond 50 respondents is substantive enough to provide scientific findings.

3.4   Sample Size and selection

A sample is a collection of some (a subset) elements of population (Amin 2014). A sample was obtained from the accessible population and contained known elements/respondents or interviewees as per Mugenda & Mugenda approach (1999). The sample size in this study was determined using three techniques: purposive, simple random and use of Krejcie & Morgan table of 1970, to determine sample size from a given population. Table 1 below shows the earlier anticipated sample size estimates as 165 which were selected from the population of Bank of Uganda, Insurance companies, Bank of Uganda, National Planning Authority, Ministry of Finance and economic planning and Commercial banks which were 290.

Table 1 : Determining accessible population and Sample Size

Departments	Population	Sample	Sampling technique
Insurance companies	18	18	Simple random
Bank of Uganda	70	35	Simple random
National Planning Authority	42	24	Simple random
Ministry of Finance and economic planning	70	38	Simple random
Commercial banks	90	50	Simple random
Total	**290**	**165**	

Source: adapted from Krejcie & Morgan, (1970) and modified by the researcher

3.5 Sampling Techniques and Procedure

The researcher employed simple random sampling to select respondents who participated in the study in order to eliminate bias. Simple random was a probability based sampling method in which every unit of the target population had an equal chance of being selected. The respondents from Bank of Uganda, Insurance companies, Bank of Uganda, National Planning Authority, Ministry of Finance and economic planning and Commercial banks was chosen because of their prior experience and knowledge in both the money markets and Securities Market. In this market government securities were they are traded. As a result, all the participants take part in the trade of Treasury bills and Treasury Bonds, Commercial papers and interbank deposit. These make the following markets that include; the Treasury Bill Primary Market, Treasury Bill Secondary Market, Treasury Bond Primary Market and Treasury Bond Secondary Market. Otherwise Krejcie & Morgan table (1970) sampling technique was adopted and modified by the researcher, to ensure representativeness of the sample and scientifically proven techniques of sampling.

3.6 Data Collection Methods

The following data collection methods were used by the researcher.

Interviews

An interview is one of the methods of collecting data from respondents to obtain information on the issues of interest (Sekaran, 2003). In-depth interviews with key informants (KIs) was conducted to generate findings that was directly used in the report thus tagging on the research questions, which enabled the researcher present her findings with those got from the focus group discussions. Through interviews, an in depth inquiry was realized; this enabled the researcher to obtain qualitative data. Therefore Interviewing allowed key informants a wider chance to give detailed information. This method was used to throw a completely different light on an issue that

the interviewer has previously never considered on assessing the role of money markets in economic development in Uganda focusing on the case of Bank of Uganda. Furthermore the researcher gathered data through interviews with top management and this helped the researcher to address the questions to one key informant at a time.

In support of this method, Admati and Pfleider (1988) Delong Etal (2010) and He and Wang (1995) consensually appreciated the importance of interviews in not only obtaining quantitative and qualitative data, but they further argued that the method helps researchers to analyze, assess and interpret the varied responses and cross- check the validity of her findings.

Documentary Review

Amin (2014) points out that reviewing the existing literature on the area of investigation improves on the researcher's clarity of the issues to be investigated, in respect to this, the researcher hopes to read further on the role of money markets in economic development in Uganda, obtain more specific documentary evidence, like BOU reports, minutes, Agendas, manuals, more seminal papers, publications and research oriented papers. These were instrumental in backing up the researcher's findings.

Focus Group Discussions

Focus Group discussions formed the basis of the researcher's primary data. In this regard the researcher met groups of responds. Roscoe (1976) observes that small groups of respondents are effective to manage and gives better results than bigger ones. In this regard, the researcher led respondents into responding to the questions asked.

3.7 Data collection instruments

3.7.1 Interview guide

An interview guide is a set of items that the researcher interviews about. It can have structured, semi- structured or unstructured questions (Kombo and Tromp, 2006). An interview guide with pre-determined set of questions was followed and used during the interview to enable cover the variables under study. An interview guide was used to interview the heads of departments and executive management. The guide was semi structured with some open –ended questions. Therefore the instrument was followed by the researcher to ask questions prompting responses from KIs (**Refer to Appendix 4**).

3.7.2 Documentary checklist

This method involved deriving information by carefully studying written documents of visual information from sources called documents. Document sources included management reports, journals, electronic sources, data bases, magazines, internet, books etc.

3.7.3 Focus Group Discussion Guides

Focus Group discussion Guides formed the basis of the researcher's primary data. In this regard the researcher met groups of responds. Roscoe (1976) observes that small groups of respondents are effective to manage and gives better results than bigger ones. In this regard, the researcher led respondents into responding to the questions asked.

3.8. Data Quality Control

In order to ensure data quality control, the different data collection methods helped to check the validity of findings. The questionnaires were pilot tested for their reliability. This was done to ensure that the questions asked are properly understood by the respondents and to avoid any ambiguity.

3.8.1 Validity

The validity of the instruments was tested to determine whether research measured what it intended to measure and to approximate the truthfulness of the results using the Content Validity Index (CVI) which was also done using expert judgment of the Research Supervisors taking only variable scoring above 0.70 accepted for Social Sciences (Amin, 2005). The CVI was measured using the formula:

CVI   =   Number of items declared valid

                               Total number of items

The results of the CVI are shown in table 3 below.

Table 1: Content Validity Index Results

Variable	Total No of items	Number of valid items	CVI
Treasury Bills	09	08	0.88
Commercial Papers	12	10	0.83
Interbank Deposit	17	15	0.88
Economic Development	15	12	0.80

Source: Expert Judgments

Table 2 shows that Treasury bills yielded CVI of 0.88, Commercial papers yielded a CVI of 0.83, and interbank deposit yielded a CVI of 0.88 while economic development yielded a CVI of 0.80. Since all variables yielded a CVI above 0.70 it is accepted for social sciences as recommended by Amin, (2005). This justified that the accuracy of the data and consistency of the findings was acceptable as also suggested by Sekaran (2003).

3.8.2. Reliability of the Instruments

The reliability of the instruments was tested to determine its consistency, or the degree to which it measures the same way each time it is used under the same condition with the same subjects. This was done by pilot-testing the instruments on a sample of 10 subjects in the study area and adjustments were made to enhance its reliability. These 10 subjects were not part of the 165 respondents in the sample size. The internal consistence (reliability) of the instrument was measured using Cronbach's alpha coefficient taking only variables with an alpha coefficient value more than 0.70 accepted for social research; (Amin, 2014) generated from SPSS.

Table 2: Reliability results

Variable	Total No of items	Cronbach's Alpha coefficient
Treasury Bills	09	0.85
Commercial Papers	12	0.81
Interbank Deposit	17	0.83
Economic Development	15	0.77

Source: Primary data

Table 4 above shows that Treasury Bills yielded Cronbach's alpha value of 0.85, Commercial Papers yielded Cronbach's alpha value 0.81, Interbank Deposit yielded Cronbach's alpha of 0.83 while Economic Development yielded Cronbach's alpha of 0.77. Since all variables yielded alpha values above 0.70 accepted for social research; Amin (2005), it was concluded that the instrument was consistent in measuring the effect of money markets on economic development in Uganda.

3.9   Procedure of Data Collection

Upon the approval of the research proposal, the researcher obtained an introductory letter from the department of higher Degrees of Uganda Management Institute. This letter was presented to the case study institution (BOU). The letter introduces the researcher to the respective offices and officers. In this respect, the researcher met potential and prospective respondents for data collection. In all data collection procedures, protocol was observed by obtaining and presenting permission letters to collect data both from UMI and BOU, the case study institution to enable access to study elements and convince them to give the data.

3.10:   Measurement of Variables

To measure variables in a quantitative approach is to transform attributes of the conceptual framework of variables studied into numerical quantities. According to Amin (2014, pg 261), measurement is the process of transforming abstractly conceived concepts or variables into numerical quantities. In this study, a likert scale was used.

Data on key variables in the self and researcher administered questionnaires was measured on the likert scale (5, 4, 3, 2, 1) for strongly agree, agree, uncertain, disagree and strongly disagree respectively. The respondents selected the response that best described their reaction to each statement and the responses were weighed from one to five.

3.11:   Data Analysis

Data analysis is the process of bringing order, structure and meaning to the mass of information gathered (Mugenda and Mugenda, 1999).

3.11.1: Qualitative data analysis

The researcher organized and prepared data for analysis by sorting and arranging the data into various themes as was reflected in the key informant guide. The researcher read through all the

data to obtain a general understanding of the information collected, coded the responses, generated themes for analysis and interpretation of the meaning of the data.

3.12   Ethical Considerations

Ethnical clearance to carry out the study was obtained from UMI while on the other hand the researcher also sought permission from the management of institutions that took part in the study to enable access to study elements and convince them to give the data before the study. On approval by the management of the institutions to carry out the study, informed consent (verbal/written) from the study participants was obtained. Study objectives, methodology and benefits were explained to those who agree to participate. Participants were assured of confidentially by assigning them with numbers instead of names.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

4.0   Introduction

This chapter presents; analyses and interprets the study findings on the effect of money markets on economic development in Uganda. The first section presents the response rate. This is followed by background information on the respondents and then a presentation, analysis and interpretation of the study findings in relation to the specific objectives.

4.1   Response rate

The study took an inquiry into knowing the response rate of the respondents in the study.

Table 3:   Response rate of distributed questionnaires

		Frequency	Percent
Valid	Response	154	93.3
	Non-response	11	6.7
	Total	**165**	**100.0**

Source; primary data

Out of a total of 165 interviews carried out by the researcher, only 154 responded effectively thus giving a response rate of 93.3%. According to Amin (2005), 70% is a good representation of the survey population, hence 93.3% is a high response rate and results obtained from the gained respondents contain substantial information. Therefore 154 respondents comprised the total number of respondents in the study which according to Mugenda & Mugenda (2010:83) is a very good response rate. This implied that overall majority of respondents participated in the study.

4.2   **Demographical Characteristics**

This section presents the characteristics of the respondents in relation to the gender, age, and time worked by the respondents as submitted in the study interviews using graphs.

4.2.1   Gender of the Respondents

A bar graph was used by the researcher to present the Gender of the respondents. Figure 1 below presented the results:

Figure 1: Distribution of gender of the respondents (N=154)
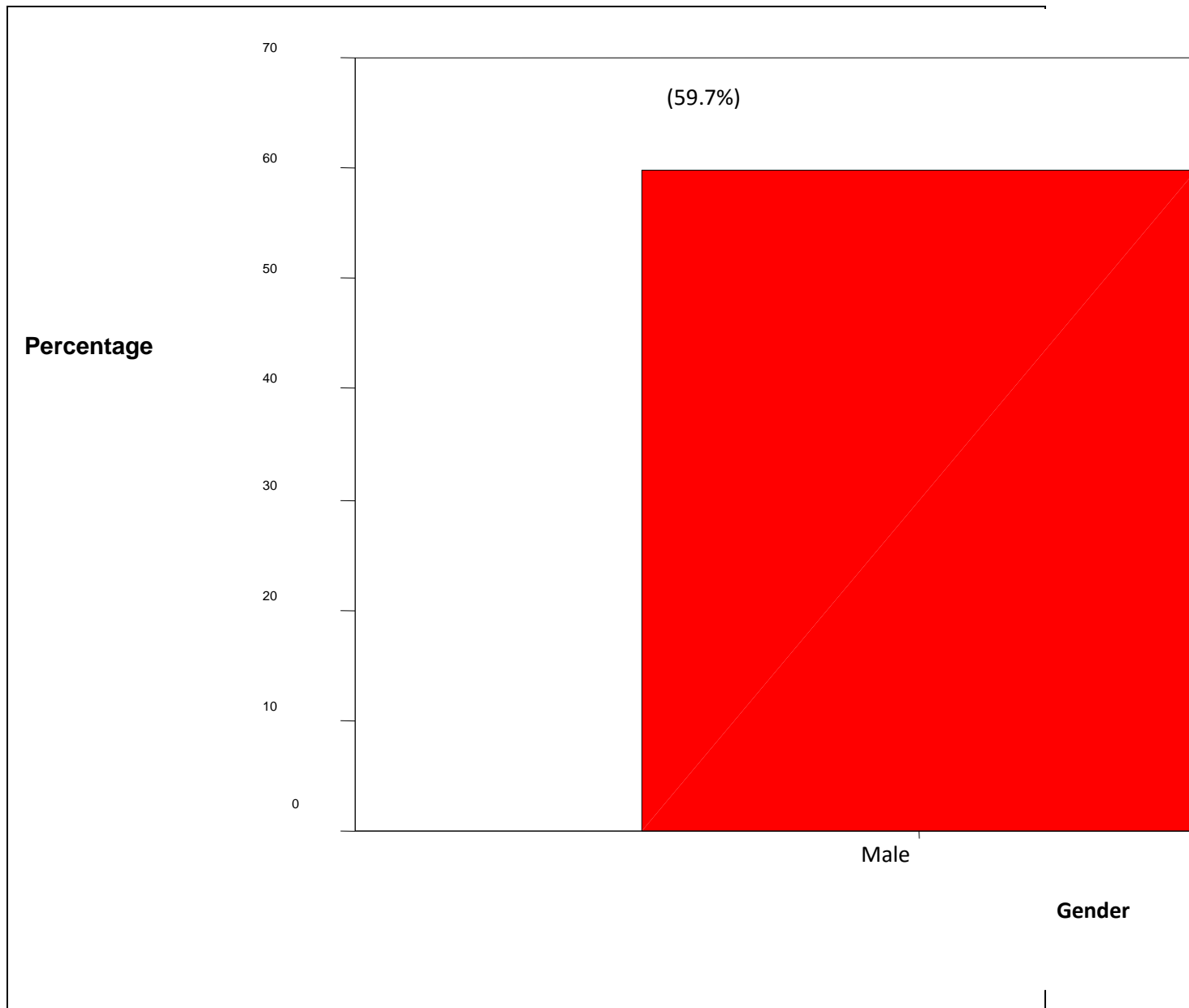
Source: Primary data

Figure 2 above shows that a majority of 92 (59.7%) of the respondents were male as compared to 62 (40.3%) who were females. This finding suggested that a gender imbalance in the number of respondents in that took part in the study which may be attributed to a lack of affirmative action in relation to the effect of money markets on economic development in Uganda., therefore

this needs to be given due attention by ensuring gender mainstreaming. On the other hand it also implied that the research was not biased because both female and male responded.

4.2.2   Age of the Respondents

A bar graph was used by the researcher to present the age group of the respondents. Figure 2 below presented the results:

Figure 2: Distribution of Age groups of the respondents (N=154)
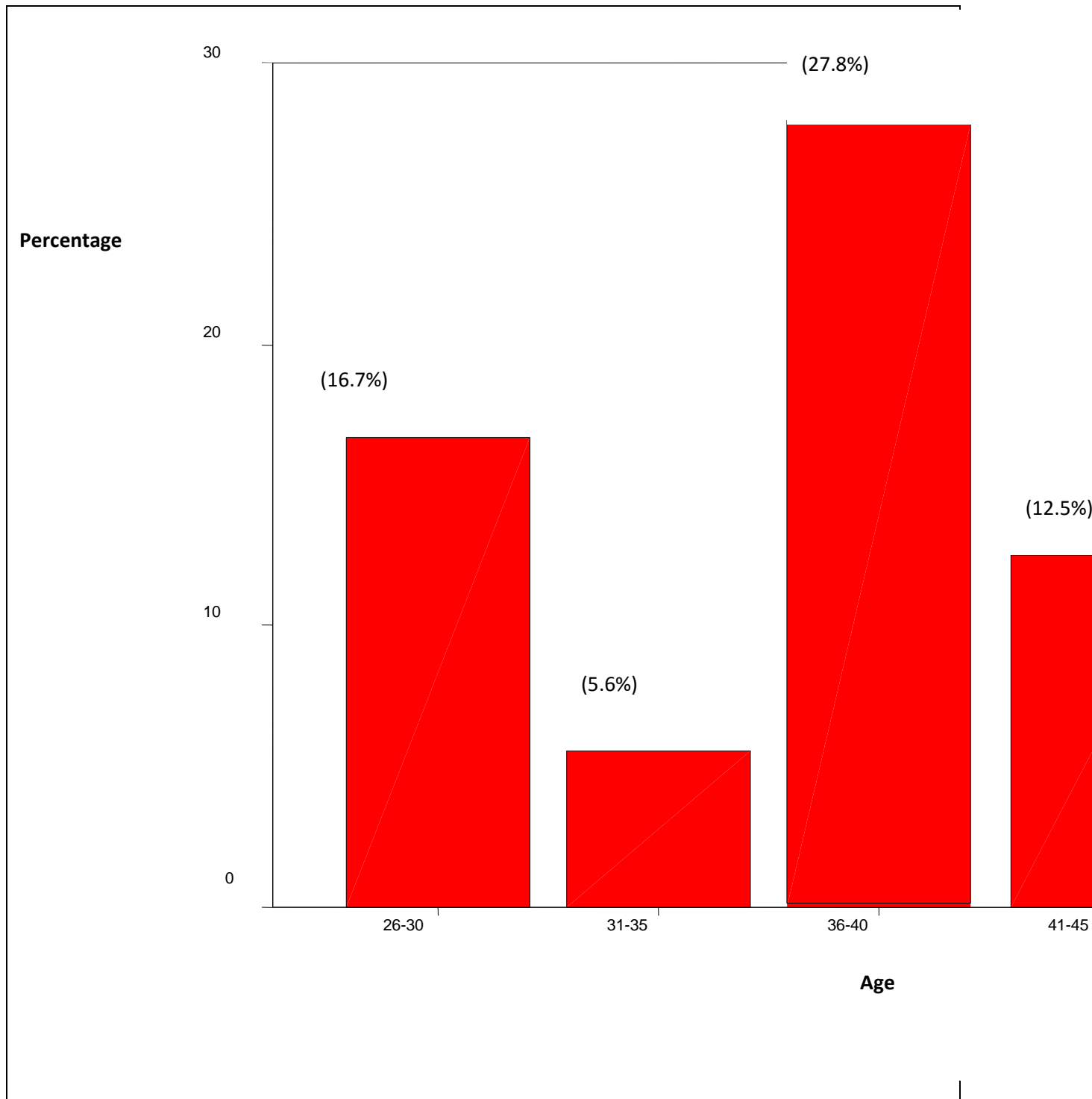
Source: Primary data

Figure 2 above shows that 43 (27.8%) of the respondents were aged between 36-40 years followed by 38 (25%) who were 51 years and above while those who were aged 26-30 years

constituted 26 (16.7%) of the total number of respondents. Those who were aged 41-45 years and 46-50 years each constituted 19(12.5%) of the total number of respondents while the least number of respondents 9(5.6%) were aged 31-35 years. This finding suggested that the respondents were of reasonable level of maturity by virtue of their age groups, yet a quarter (25%) of the respondents were closing in to retirement (51 and more years). This implied that the information they gave was credible and well thought out, qualifying to be generalized.

4.2.3   Level of Education of Respondents

A pie chart was used by the researcher to present the level of education of the respondents. Figure 3 below presented the results:

Figure 3: The distribution of the level of education of the respondents (N = 154)

Others Specify (12.5%)

Dipl
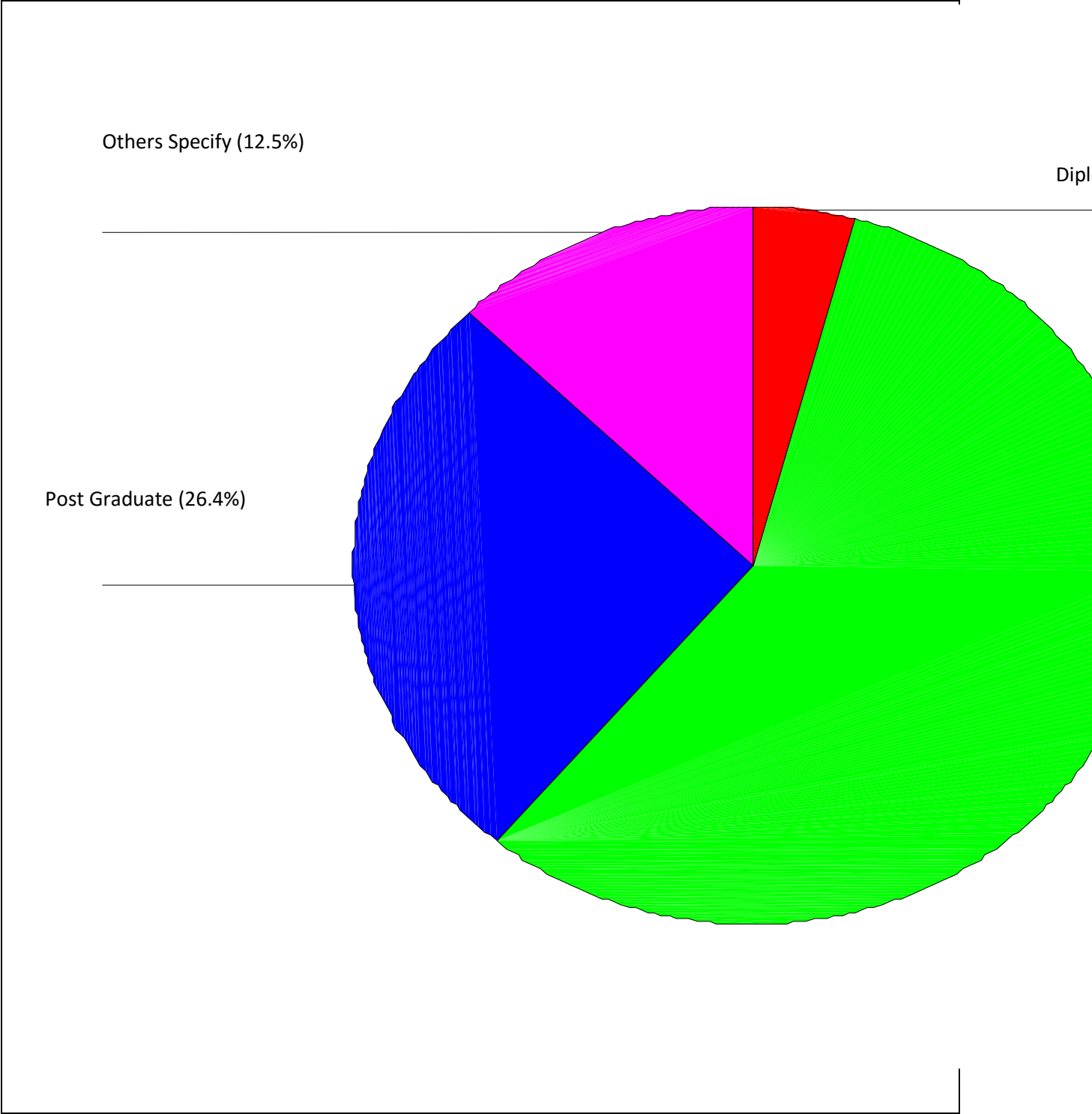
Post Graduate (26.4%)

Source: Primary data

Figure 3 above shows that a majority of 88 (56.9%) of the respondents had attained a university

degree as their highest level of education followed by 41 (26.4%) who had attained a post

54

graduate and 19 (12.5%) who had other education qualifications other than those mentioned above. The least number of respondents 6 (4.2%) had attained only a diploma as the highest level of education. This finding revealed that the respondents had attained a reasonable level of education to understand the effect of money markets on economic development in Uganda, hence providing reliable data.

4.2.4 Duration of Service in the bank

A Bar graph was used by the researcher to present duration of Service of the respondents at bank. Figure 5 below presented the results:

Figure 2: Duration respondents have worked with bank (N = 154)
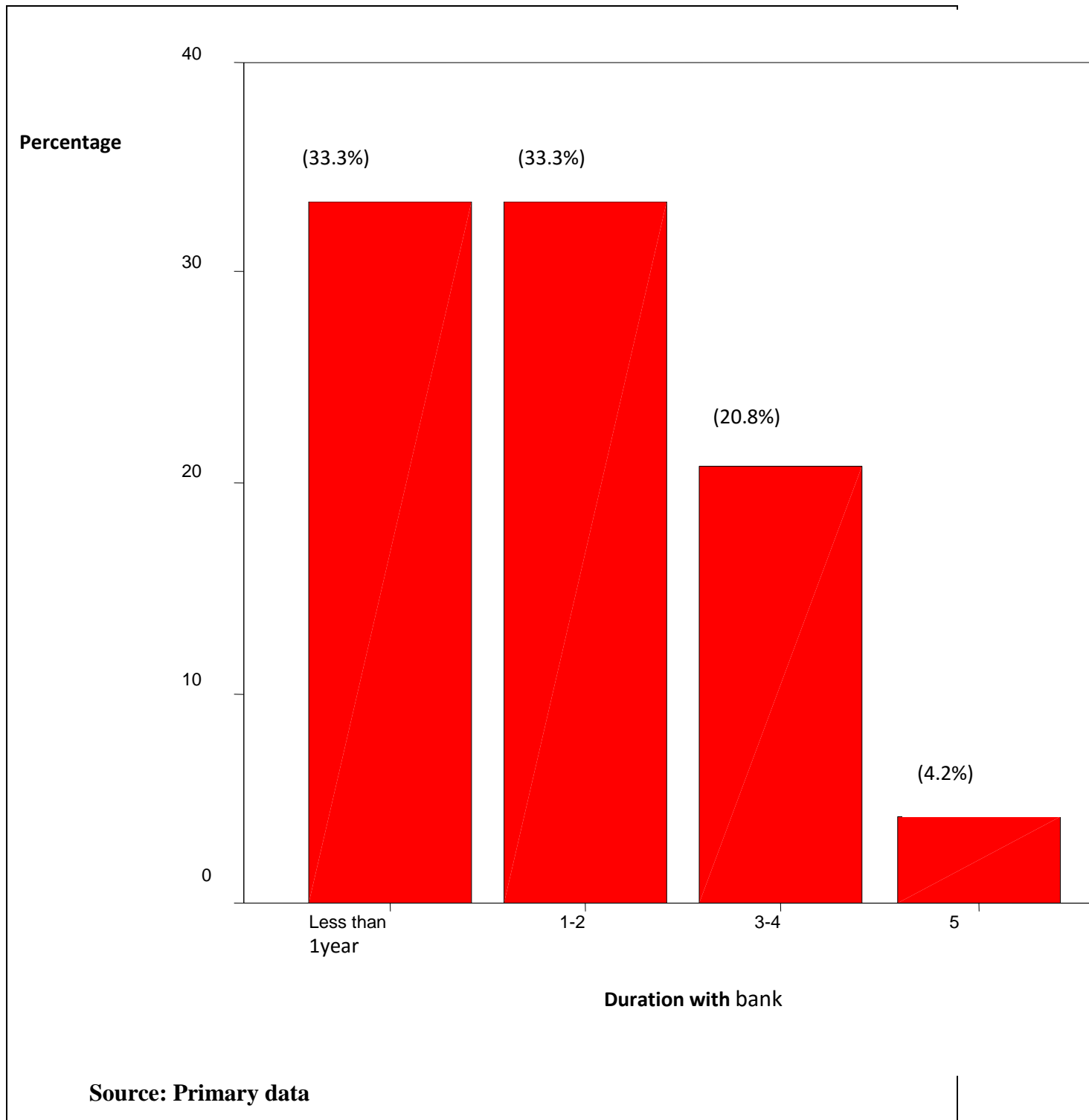
Figure 5 above shows that a majority of 102 (66.6%) of the respondents has worked with bank

for the period between less than one year and two years; 34 (20.8%) of the respondents had

worked with bank for the period between 3 - 4 years and lastly 18 (12.6%) respondents had worked for a between 5 – 7 years and above. This finding revealed that the majority of the respondents had worked with bank for a period of less than 3years; hence being in position to explain the effect of money markets on economic development in Uganda, hence providing reliable data.

4.2.5   Respondents job Title

Figure 3: The distribution of the respondents as per job title (N=154)

Others (44.4%)

Bank Managers (2
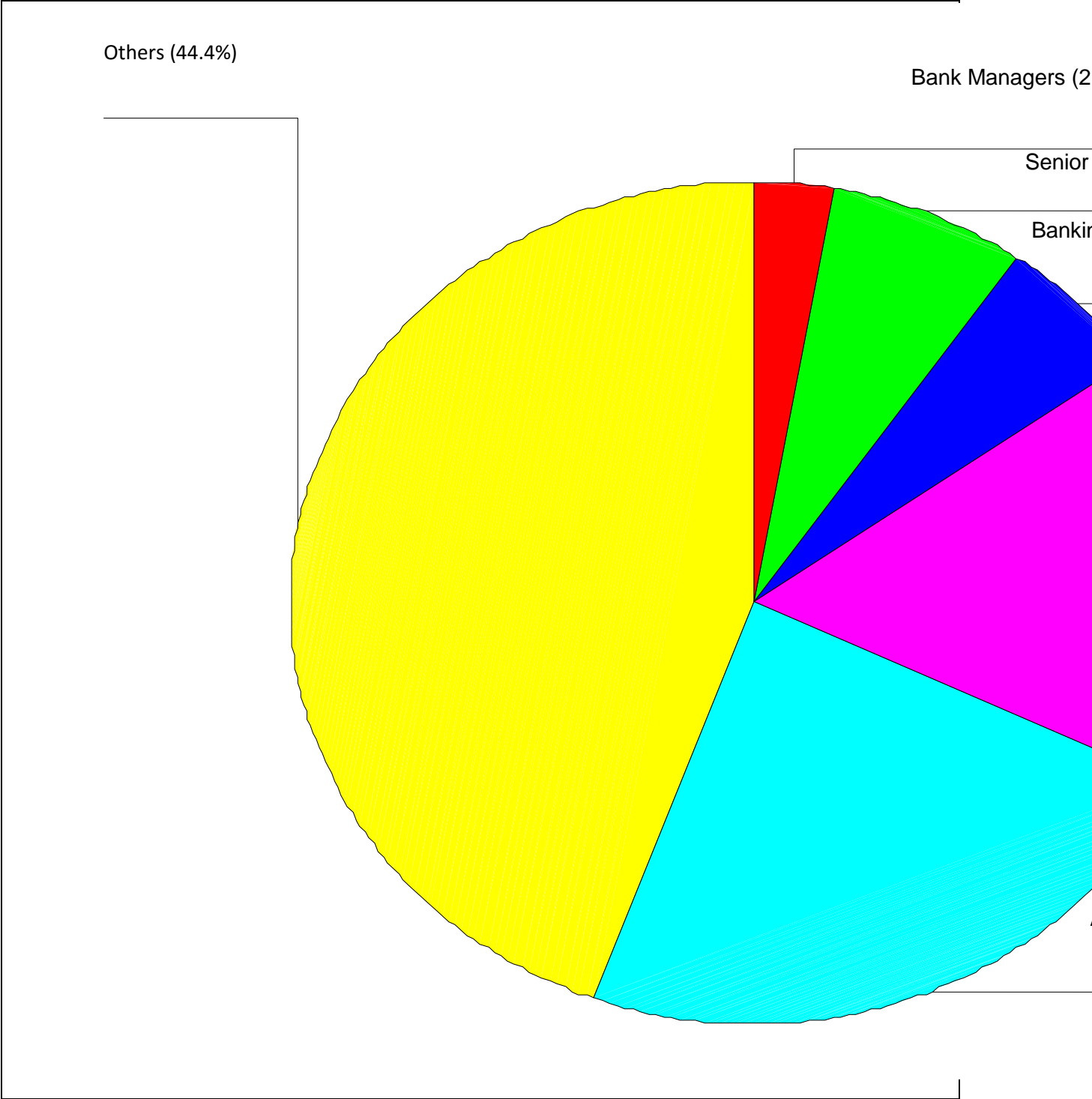
Senior

Bankir

Source: Primary data

Figure 6 above shows that a majority 44.4% of respondents were at others which category was

not mentioned and assistant banking officer level being 23.6%, 16.7% were Principal banking

Officers, while 6.9% constituted the senior banking officers, 5.6% being banking officers and 2.8% for bank Managers. These findings revealed that the majority of the respondents were supervisees who could explain well issues concerning the effect of money markets on economic development in Uganda. The seniority and experience they have acquired was a good prerequisite for candidature as respondents to this study, considering that they have credible knowledge on the effect of money markets on economic development.

4.3   The effect of Treasury bills on economic development in Uganda.

The first objective of the study was to establish the effect of Treasury bills on economic development in Uganda. The findings from the interviews carried are presented below.

As regards to the findings in relation to what are Treasury bills, the interview findings from the respondents revealed that a Treasury bill is a market for sale and purchase of short term government securities. These securities are called as Treasury Bills which are promissory notes or financial bills issued by the central bank on behalf of the Government of Uganda. It was further revealed that there are two types of̂ treasury bills namely the Ordinary or Regular Treasury Bills and Ad Hoc Treasury Bills. The maturity period of these securities range from as low as 14 days to as high as 364 days.

One of the respondents had to say;

> *"Treasury Bills are financial instruments used as debt obligation between an issuer and the holder (buyer). They are usually issued by the Central bank. They create an IOU to the issuer and an investment & return platform to the holder (buyer)" said Principal banking Officer- Head Open market Operations Section, bank of Uganda.*

This implied that Treasury Bills are one of the safest money market instruments, which usually short term borrowing instruments of the Central Government of the Country issued through the Central Bank (BoU). They are zero risk instruments, and hence the returns are not so attractive. It is available both in primary market as well as secondary market. It is a promise to pay a said sum after a specified period. T-bills are short-term securities that mature in one year or less from their issue date. They are issued with three-month, six-month and one-year maturity periods. The Central Government issues T- Bills at a price less than their face value (par value). They are issued with a promise to pay full face value on maturity. So, when the T-bills mature, the government pays the holder its face value. The difference between the purchase price and the maturity value is the interest income earned by the purchaser of the instrument. T-Bills are issued through a bidding process at auctions. The bid can be prepared either competitively or non-competitively. In the second type of bidding, return required is not specified and the one determined at the auction is received on maturity. Whereas, in case of competitive bidding, the return required on maturity is specified in the bid. In case the return specified is too high then the T-Bill might not be issued to the bidder.

One of the respondents had to say;

> *"Treasury bills dominate the money market in Uganda, accounting for the largest portion of all government domestic debt. Its initiation in 1992 through an auction system provided the minimum market base necessary to facilitate the transition from direct to indirect monetary control. The 91- day TBs were offered to banks and to the non-bank institutions on a fortnightly basis, but the frequency later increased to a weekly basis; In*

January 1993, the term structure of the TB market was lengthened, with the weekly auction being augmented by a monthly allocation of 182-day and 273- day TBs and later by the 364-day TBs in December 1994. This continued until July 2000 when the frequency of the 182-, 273-, and 364-day TBs increased from a monthly to a weekly basis. Due to the enormous need to mop up excessive liquidity, the stock of TBs more than doubled from Shs 206 billion as at end-June 1999 to Shs 486 billion as at end- December 2000; said Musinguzi,(banking Officer- Open market Operations Section), bank of Uganda.

This implied that an increase in bank investment in the government securities and treasury bills is expected to affect the bank advances positively as it curtails the supply of advances in the open market. The level of' economic development or activity is expected to make a positive impact on bank advances as it not only increases the demand for advances but the supply of loanable funds as well.

As regards to the findings in relation to the effect of Treasury bills on economic development in Uganda, the respondents revealed that the effect of Treasury bills in a modern economy is shown in making possible the separation of the function of savings and investments and facilitating the continuous process of arrangement of savers assets portfolio. These activities tend to increase the volume of savings and investments in an economy and help to improve allocation of resources among alternative investments. The consequence of which is the acceleration of the rate of development and industrialization. The economic strength of any nation is measured by the value of its accumulated wealth and by the rate of which it grows through savings and investment. The Treasury bills finances gross investments and at the rate at which such investment is financed

and accumulated is dependent on the capital market, resiliency. The impact of the Treasury bills on the economic development of any nation is very profound, because it is made up of institutions which provide medium and long term capital for the federal and state governments, corporate bodies, as well as the private sector of the economy in other to enable them embark or expand development projects within the economy.

One of the respondents had to say;

> *"Government sells treasury Bills with the objective of raising Government finances; Government finances are used to meet government expenditures such as infrastructure development and other government projects. Better infrastructure and projects in turn results into economic development. "*

This means that the treasury Bills in the money market forms the first and foremost link in the transmission of monetary policy impulses to the real economy. Policy interventions by the central bank along with its market operations influence the decisions of households and firms through the monetary policy transmission mechanism. The key to this mechanism is the total claim of the economy on the central bank, commonly known as the monetary base or high-powered money in the economy. Among the constituents of the monetary base, the most important constituent is bank reserves, i.e., the claims that banks hold in the form of deposits with the central bank.

The major findings of the study from the interviews carried out shows that a long-run effect exists between Treasury bills and economic development in Uganda. The ratio of broad money supply to GDP has a negative and significant impact on economic growth both in the short-run and in the long-run. This shows that an increase in the ratio of broad money supply would

decrease economic growth. On the other hand, the absence of positive effect between the ratios of broad money supply to GDP (M2GDP) and economic growth. It was also discovered that a positive relationship exists between the ratio of private sector credit to GDP and economic growth but the relationship is however not statistically significant both in the short-run and in the long run. The reason for the insignificant nature of the ratio of private sector credit to GDP may be due to the unattractiveness of loans to investors and entrepreneurs as well as lack of financial confidence in most of the deposit banks.

4.4   The effect of Commercial papers on economic development in Uganda.

The second objective of the study was to assess the effect of Commercial papers on economic development in Uganda. The findings from the interviews carried are presented below.

As regards to the findings in relation to what are Commercial papers, the interview findings from the respondents revealed that a Commercial paper is a short-term unsecured promissory note issued by corporations and foreign governments. For many large, creditworthy issuers, commercial paper is a low-cost alternative to bank loans. Issuers are able to efficiently raise large amounts of funds quickly and without expensive Securities and Exchange Commission (SEC) registration by selling paper, either directly or through independent dealers, to a large and varied pool of institutional buyers. Investors in commercial paper earn competitive, market-determined yields in notes whose maturity and amounts can be tailored to their specific needs.

One of the respondents had to define commercial paper in this way;

> *"A Commercial Paper is short-term loan that is issued by a corporation use for financing accounts receivable and inventories. Commercial Papers have higher denominations as*

compared to the Treasury Bills and the Certificate of Deposit. The maturity periods of Commercial Papers are a maximum of 9 months. They are very safe since the financial situation of the corporation can be anticipated over a few months;" Said, Senior banking Officer- Stanbic bank Uganda.

This means that a Commercial paper is a third source of short-term credit that consists of well-established firms' promissory notes sold primarily to other businesses, insurance companies, pension funds, and banks. Commercial paper is issued for periods varying from two to six months. The rates on prime commercial paper vary, but they are generally slightly below the rates paid on prime business loans. A basic limitation of the commercial-paper market is that its resources are limited to the excess liquidity that corporations, the main suppliers of funds, may have at any particular time. Another disadvantage is the impersonality of the dealings; a bank is much more likely to help a good customer weather a storm than is a commercial-paper dealer.

Furthermore one of the respondents had to define commercial paper in this way;

> *"Commercial papers are short-term bonds that are negotiable as bearer certificates. At maturity, the issuer of a commercial paper pays the capital plus interest to the bearer. For companies, commercial papers are an example of "securitisation", i.e. they can borrow money without drawing on their bank deposits. When issuing, the banks act as a broker by passing on commercial papers to potential investors without investing on their own. In this way, funds go directly from investor to debtor/creditor without placing a deposit in the bank."*

This means that commercial papers are issued as a series of notes, where each note guarantees the bearer a fixed amount of capital at maturity. Each note possesses the following specifications like the name of the issuer, the note's underlying nominal amount of capital, the issue date, the maturity date and the proof of authenticity (evidence of origin by the arranging bank). Apart from this, each note carries the clause that it is negotiable and that the bearer is entitled by the issuing company to pay or receive payment through the arranging bank. The issue of commercial papers is made by investment banks; commercial papers are made negotiable for customers (mostly large companies) and are offered to a great number of potential customers. The margin of a bank's CP dealer is calculated on the basis of the turnover volume.

Furthermore one of the respondents had to define commercial paper in this way;

> *"It is a market for the short term, self liquidating and negotiable money market instrument. Commercial bills are used to finance the movement and storage of agriculture and industrial goods in domestic and foreign markets. The commercial bill market in Uganda is still underdeveloped."*

As regards to the findings in relation to the effect of Commercial papers on economic development in Uganda, the respondents revealed that the Commercial Paper offers its issuers and investors: exemption from Securities and Exchange Commission (SEC) regulation, lower costs, competitive yields, and tailored securities to meet investors' needs which are intended to improve economic development.

One of the respondents had to quote that Aswath Damodaran, professor of finance at the Stern School of Business at New York University provides an excellent overview of the rating system used for commercial paper in his book "Corporate Finance: Theory and Practice". According to Mr. Damodaran,

> *"Commercial paper, like corporate bonds, is rated by independent ratings agencies. The ratings used are by three agencies: Standard and Poor's, Moody's, and Fitch. Between 1971 and 1989, there were no defaults on commercial paper. During the recession in 1989 and 1990, seven defaults occurred, primarily among riskier issuers who were using commercial paper as bridge financing." (Damodaran 431-432).*

Commercial paper prices are (like all fixed income securities), vulnerable to changes in interest rates. If interest rates rise, commercial paper prices will decline. Thankfully because commercial paper securities are of a short-term nature, the investment is less susceptible to interest rate risk than many other fixed income securities because interest rate risk typically increases as maturity lengths increase. There is a chance that the issuer will default on its commercial paper obligation (Fidelity). In relation to Mr. Damodaran's statement, historically default risk has been very low, unfortunately over the past few months, the market has seen an increase in the risk which has forced the credit restrictions to tighten. Other types of risk are not prominent or relative to commercial paper because of the short maturity and stability of our financial market.

One of the respondents had to define commercial paper in this way;

> *"The primary backing for the commercial paper is the credit quality of the issuer and market perceived ability of earnings to service the borrowings. Most of the issuers have*

high credit ratings and hence the commercial paper serves as very good instruments for money market funds to invest for greater returns. Money market funds thus hold large proportions of the commercial paper volumes and hence understanding their impact on the commercial paper market is of interest."

This implied that commercial paper are ingenious financial innovations developed over many years by corporations and governments throughout their lifetime, these instruments have enabled firms to finance operations at a minimal cost, which in turn provides investors with a profitable investment opportunity. Investors have to be provided with a detailed overview of commercial paper and the benefits of investment. Therefore the study addressed the effect of Commercial papers on economic development

4.5   The effect of interbank deposit on economic development in Uganda.

The third objective of the study was to find out the effect of interbank deposit on economic development in Uganda. The findings from the interviews carried are presented below.

As regards to the findings in relation to what are interbank deposit, the interview findings from the respondents revealed that a interbank deposit is one of the segments of the money market in which the banking institutions are the parties, and the short-term financial instruments and interbank deposits in the national and foreign currency are transacted. This market is considered as the most important part of the money market. This is the market in which banks have the possibility of lending to each other their liquid assets. It is also a closed market as the transactions in financial instruments can be carried out only by the commercial banks and

Central Bank. The brokers act as the intermediaries in this market and for this they receive commissions.

One of the respondents had to say;

> *"These are uncollateralized placements of funds to one bank by another bank for a specified period of time for a specified rate of return" said Principal banking Officer-Head Open market Operations Section, bank of Uganda.*

This implied that an interbank deposit is a transaction which involves the receipt or grant of one bank to another of a specified amount of cash, with a pre-determined date and interest rate where the benefits obtained by the commercial banks through the interbank market are the increase of the degree of independence from the refinance credit of the Central Bank and possibility of speculation in the financial instruments of this market, as an additional source of the income;

As regards to the findings in relation to the effect of interbank deposit on economic development in Uganda, the respondents revealed that;

> *"Transmission mechanism of monetary policy takes place with a lag; the interest rate channel with which the deposit rate is part is very fundamental in the transmission mechanism of monetary policy and ultimately economic development. The effects from the changes in prices in interbank market rates result into changes in other prices with a lag; the effectiveness of the impact of interbank deposit rates to other economic market prices will depend on the depth of the market, financial innovations, levels of development and other factors. Therefore the extent of interbank deposits on economic*

development is dependant o various factors as stated above;" Said Principal banking

Officer- Head Open market Operations Section, bank of Uganda.

Another respondent had to say;

"The interbank market provides a platform where banks can lend and borrow funds. Commercial bank interest rates are a basis for credit interest rates and other financial prices. These in turn filter through to other financial and economic indicators such as output, incomes, spending, and employment and in the long term these factors influence economic development."

This implied that the money market denotes inter-bank market where the banks borrow and lend among themselves to meet the short term credit and deposit needs of the economy. Short term generally covers the time period up to one year. The money market operations help the banks tide over the temporary mismatch of funds with them. In case a particular bank needs funds for a few days, it can borrow from another bank by paying the determined interest rate. The lending bank also gains, as it is able to earn interest on the funds lying idle with it. In other words, money market provides avenues to the players in the market to strike equilibrium between the surplus funds with the lenders and the requirement of funds for the borrowers. An important function of the money market is to provide a focal point for interventions of the bank of Uganda to influence the liquidity in the financial system and implement other monetary policy measures. Therefore the study addressed the effect of interbank deposit on economic development in Uganda

4.6:   Dependent Variable (economic development)

In regard to the indicators of economic development in Uganda, response obtained from the interviews carried by the researcher is shown below.

The results showed that the level of Investments and savings are an important part of the Solow model because they determine the level of steady state output, i.e. how much capital is available per capita. Uganda has had huge investments and savings rates, and therefore these variables were expected to be positive and significant to growth. Investments are generally more significant to growth in 2010 than in 2014, which could mean that investments are losing some of its impact on growth. Investments show the highest level of significance in model 3 for the year 2003, meaning that investments are more important to growth in poor regions than rich. It could be that investments are larger in poor regions and have a more significant impact on growth, or that there are other factors that affect growth more in rich regions.

However, it is hard to say whether investments cause growth or growth cause investments. Large investments yield a higher level of GDP per capita and a higher steady state, according to theory, and combined with human capital it can yield growth. But a high level of GDP per capita can also be caused by other factors, such as savings or human capital. The GDP may in turn be used for investments. The results do show that there is a correlation between investments and growth. This implies that savings show some degree of significance in all models for both years but is consistently negative. The negative estimates are contrary to the Solow model. One explanation could be that savings are measured in household savings/GDP, and if GDP grows faster than the savings rate, then the savings/GDP ratio will decrease and it will be negatively correlated to growth.

One of the managers, who were in Ministry of Finance and Economic planning in this way, had this to say;

"The indicators of economic development in Uganda are through GDP, per capita income and other economic indicators. Not only does Uganda invest a lot, Ugandan people also save a large amount of their income. In 2000s the average household saved 15% of their income, in 2010s that figure was 29%. The reason for high savings rates is that Uganda lacks a welfare system that provides for retirement, healthcare, education etc., since the people's communes were disbanded. Today, everything has to be saved up for. Despite the absence of one-child policy in the country, household savings can become more important as old people can no longer count on being provided for by their children and grandchildren. Another reason for high household savings is that capital markets are insecure and saving in banks is considered a much more reliable option. However, there are downsides to saving in banks as inflation rates have been irregular for the past decades and are sometimes higher than the banks' savings rates, which decreases the value of savings"

The results showed that the level of Population growth is one of the indicators of economic development in Uganda: Uganda's population is over 40 386 141. An issue that makes Uganda's population hard to measure is the floating population. About 2 million people are estimated to live and work illegally outside of their registered area of residence. These people are not counted

in the region where they currently live, but where they are registered, which makes statistical data on population per region misleading and affecting economic development in Uganda

4.7   The effect of money markets on economic development in Uganda.

To test the effect of money markets on economic development in Uganda, each of the independent variables (Treasury bills, Commercial papers and interbank deposit) was individually computed into a single variable with the dependent variable (economic development).therefore the results from the interviews carried by the researcher are presented below. In reference to the effect of money markets on economic development in Uganda, the findings from the interviews carried out by the researcher showed that the money markets play a key role in banks' liquidity management and the transmission of monetary policy, control of money supply and demand-pull inflation, determination of short-run interest rate. In normal times, money markets are among the most liquid in the financial sector. By providing the appropriate instruments and partners for liquidity trading, the money market allows the refinancing of short and medium-term positions and facilitates the mitigation of your business' liquidity risk. The banking system and the money market represent the exclusive setting monetary policy operates in. A developed, active and efficient interbank market enhances the efficiency of central bank's monetary policy, transmitting its impulses into the economy best. Thus, the development of the money market smoothes the progress of financial intermediation and boosts lending to economic development and hence improving the country's economic and social welfare, Money markets play a key role in banks' liquidity management and the transmission of monetary policy. In normal times, money markets are among the most liquid in the financial sector. By providing the appropriate instruments and partners for liquidity trading,

the money market allows the refinancing of short and medium-term positions and facilitates the mitigation of your business' liquidity risk. The banking system and the money market represent the exclusive setting monetary policy operates in. A developed, active and efficient interbank market enhances the efficiency of central bank's monetary policy, transmitting its impulses into the economy best. Thus, the development of the money market smoothes the progress of financial intermediation and boosts lending to economy, hence improving the country's economic and social welfare. Therefore, the development of the money market is in all stakeholders' interests: the banking system elf, the Central Bank and the economy on the whole.

Therefore, the development of the money market is in all stakeholders' interests: the banking system itself, the Central Bank and the economy on the whole.

This is evidenced by one of the respondents who had to say that;

> *"Money markets are the platform from where short term instruments & funds are traded. Market interest rates filter into other economic rates which in turn influence economic conditions such as spending, output, incomes, employment and the general economic outlook with a lag. Bank of Uganda is the regulator of all financial institutions. Its role as a regulator comes with various responsibilities such as market guidelines, market reforms, monitoring of money market interest rates, and establishing rules and guideline of market making."*

Another respondent had to say;

"The money market is a key component of the financial system as it is the fulcrum of monetary operations conducted by the central bank in its pursuit of monetary policy objectives. It is a market for short-term funds with maturity ranging from overnight to one year and includes financial instruments that are deemed to be close substitutes of money. The money market performs three broad functions. Firstly, it provides an equilibrating mechanism for demand and supply of short-term funds. Secondly, it enables borrowers and lenders of short-term funds to fulfill their borrowing and investment requirements at an efficient market clearing price. Three, it provides an avenue for central bank intervention in influencing both quantum and cost of liquidity in the financial system, thereby transmitting monetary policy impulses to the real economy."

This implied that the existence of money market facilitates trading in short-term debt instruments to meet short term needs of large users of funds such as governments, banks, and similar institutions. Money market plays a key role in bank's liquidity management and the transmission of monetary policy. By providing the appropriate instruments and partner for liquidity trading, the money market allows the refinancing of short and medium term positions and facilitates the mitigation of business liquidity risks. The banking system and the money market represent the exclusive setting in which monetary policy operates. Developed, active, and efficient interbank and money markets enhance the efficiency of central bank's monetary policy and the transmission of its impulses into the economy. Thus, the development of the money market smoothen the progress of the financial intermediation and boost lending to the economy, and improves the country's economic and social welfare. Well developed money markets exist in developed countries, particularly in the high income ones, while those in the low income

countries mirror the state of their development. In the latter, the markets are narrow, poorly integrated, and in some instances, non-existent in the real sense of it. The level of development of a money market serves as a barometer for measuring the level of development of the economy. They assert that the degree and tempo of development of one reflects the spate of development of the other.

CHAPTER FIVE

SUMMARY, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the study, discussions of the findings, conclusions and recommendations made. It also presents proposed areas for further research. The discussions, conclusions, and recommendations are presented according to the objectives of the study.

5.2 Summary of findings

5.2.1 The effect of Treasury bills on economic development in Uganda

A summary of the major findings of the study shows that a long-run relationship exists between the effects of Treasury bills on economic development in Uganda. The ratio of broad money supply to GDP has a negative and significant impact on economic growth both in the short-run and in the long-run. This shows that an increase in the ratio of broad money supply would decrease economic growth. The graphical illustration also showed absence of positive relationship between the ratio of broad money supply to GDP (M2GDP) and economic growth. It was also discovered that a positive relationship exists between the ratio of private sector credit to GDP and economic growth but the relationship is however not statistically significant both in the short-run and in the longrun. The reason for the insignificant nature of the ratio of private sector credit to GDP may be due to the unattractiveness of loans to investors and entrepreneurs as well as lack of financial confidence in most of the deposit banks.

The study also found out that real interest rate has a positive and significant impact on economic growth. This implies that an increase (decrease) in real interest rate will increase (decrease) economic growth in Uganda. The finding also implies that the behavior of interest rate is

important for economic growth in view of the relationships between interest rates and investment on the one hand, and between investment and growth on the other hand. Thus, the formulation and implementation of financial policies that enhance investment friendly rate of interest is necessary for promoting economic growth in Uganda. Furthermore, the impact of labor growth rate on economic growth in both the short-run and long run is negative and statistically significant. This means that as the labor growth rate increases, economic growth will decrease. Finally, whether short-run or long-run, physical capital has a positive and statistically significant impact on growth. This means that an increase (decrease) in physical capital increases (decreases) economic growth.

5.2.2 The effect of Commercial papers on economic development in Uganda

The study found that the Approved amount of commercial paper impacts the all share index (NASI) negatively. This shows that when the amount of commercial paper approved increases, the all share index decreases. The amount of commercial paper issues and the number of outstanding issues do not seem to have a negative effect on the all share index (NASI). The amount of approved amount of commercial paper represents the issuing companies' needs to fund their working capital requirements. This issuance need could be driven by low market interest rates prompting issuers to seek lower cost short-term funding. Their need to float commercial paper alone does not seem to have an effect in the overall equities market activates that tend to be long term in nature. Companies floating equities often do so to finance longer term need and projects. The number of companies issuing commercial paper does not seem to have a negative impact on the index because what matters is the size of issue. For instance, a single company could issue commercial paper of say a billion shillings while in a different

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period ten companies could issue commercial paper of five hundred million each issue floating an issue of fifty million or so. As illustrated, the number of companies issuing commercial paper could decrease while the outstanding amount of commercial paper decreases or vice versa. The amount of commercial paper approved negatively impacts on the all share index . This could in essence be interpreted as the desire for companies to finance their short-term need by floating commercial paper is received well by investors who could use their funds to cash in on the high yields that could be temporarily absent in the equities markets.

The study also found out that the outstanding Amount in Commercial Paper, Commercial Paper Issues, End-Month Market Capitalization and the Approved amount of Commercial Paper are affected by the potential for both an upgrade as well as a downgrade from the existing credit rating companies in Kenya. This is in line with Wilcox, and Stein (1997) by modeling total commercial paper outstanding as a share of itself plus business loans or the relative use of security-funded credit to itself plus bank loans. There results hold when net debt and net equity issuance are tested separately, and the results are robust to several model specifications and econometric approaches. The change specifically from investment grade to speculative grade appears incrementally significant, which is consistent with several of the hypotheses outlined for why credit ratings would be significant for firms. Ratings tests also indicate that firms are most concerned around ratings levels such that access to commercial paper is affected and bond liquidity issues are most severe. The study found out that under normal circumstances, commercial paper offers the lowest cost source of short-term financing for large, well-established firms. The commercial paper backup line of credit, however, allows a firm to borrow from its bank at a pre-determined spread, thus providing insurance against the possibility of

having to borrow when commercial paper is expensive (e.g. because outstanding paper is maturing). Borrowing in the commercial paper market may be expensive either because a firm's credit quality has declined, or because the overall supply of liquidity has declined. Firms pay their bank an annual fee for this insurance.

Assessment of the theory of behavioral finance, corporate finance theory, firm valuation theory and theory of efficient market hypothesis in light of our firms-level evidence leads us to the following conclusions. First, it is essential to recognize differences across firms in order to understand the aggregate movement of nonfinancial commercial paper. The commercial paper aggregate is dominated by a very small number of firms whose large size, strong balance sheets, and high cash flows put them in a position to issue low-risk, highly liquid securities. There is no evidence to suggest that such firms need to issue commercial paper in order to finance cash shortfalls or reductions in alternative sources of short-term funds. But there is evidence that this select group of firms uses commercial paper to finance increases in inventories and accounts receivable. Among other things, this evidence calls for a more nuanced view of the apparent substitution among assets in the aggregate. In particular, the movements of commercial paper and bank debt may in fact reflect: an increase in commercial paper to finance accounts receivable among large, high-credit quality firms acting as intermediaries for other firms, and in turn the substitution of accounts payable for bank loans among smaller "credit-constrained" firms.

Despite the availability of alternative financing sources, limited access to commercial paper financing is related to the level of corporate inventories. Commercial paper issuers significantly reduced their inventory positions after the contraction of liquidity in the paper market. Hence,

commercial paper may play a critical role in the financing of inventories for large corporations. Commercial paper is either not used for the financing of long-term projects or the substitution into alternative debt instruments attenuates potential disruptions of investment activities. The effects of ratings on capital structure can be viewed as complementary to existing capital structure theories. Credit rating dummy variables remain statistically significant when they are nested in empirical tests of the tradeoff and pecking order capital structure theories found in Shyam-Sunder and Myers (1999) and when explanatory variables from several additional previous papers are included. This effect is supported by the high yielding money market mutual funds, investors became increasingly reluctant to purchase commercial paper, especially for longer dated maturities. As a result, an increasingly high percentage of outstanding paper had to be refinanced each day, interest rates on longer term commercial paper increased significantly, and the volume of outstanding paper declined sharply. These market disruptions had the potential to constrain the economic activities of commercial paper issuers. Indeed, a large share of outstanding commercial paper is issued or sponsored by financial intermediaries, and the difficulties they faced placing commercial paper further reduced their ability to meet the credit needs of businesses and households.

The effect of interbank deposit on economic development in Uganda.

The results suggest that inter-bank liabilities differently influence the amount of credits in the economy which in turn influences economic development. Therefore the findings revealed that in the past that the interbank rate worked as a reference for the interest rates of loan and deposit products offered by Ugandan banks. In particular, the remuneration of bank deposits has been historically set equal to the interbank rate minus a margin discount. However, the interest cost of term deposits has been generally above the interbank rate since 2008. This observation is

surprising if we use as framework of analysis a standard model of banking competition, where banks have some degree of market power in the loan and deposit markets and have access to an interbank market with a perfectly elastic supply of funds. In such a framework, it is not possible to observe a market equilibrium with an interest rate on bank deposits above the interbank rate, as banks would then have the incentive and the ability to substitute deposits for interbank funding. The addition to the standard model of disruptions in the interbank market and bank investments in public debt can help to solve this puzzle and explain the observed deposit rates in recent history.

For foreign banks deposits and inter-bank liabilities have higher impact on credit level. Regarding inter-bank the reason of the fact is that foreign banks are not restricted with deposits of local clients. Foreign banks can raise funds from their parental banks or borrow from other banks. For them borrowings from other banks is easier due to creditworthiness of the parent bank. Influence of the spread between credit and deposit rates is not significant. Deposits and inter-banks liabilities are more deterministic for amount of credits issued compared to spread between rates. However, spread between rates for credits denominated in local and foreign currency has significant negative effect. The intuition is that higher competition in Ugandan banking sector caused reduction in interest rates and, consequently, spreads between them. This reduction induced credit amount to grow.

5.3   Conclusion

To sum up, the money market is a key component of the financial system as it is the fulcrum of monetary operations conducted by the central bank in its pursuit of monetary policy objectives. It is a market for short-term funds with maturity ranging from overnight to one year and includes

financial instruments that are deemed to be close substitutes of money. The money market performs three broad functions. Firstly, it provides an equilibrating mechanism for demand and supply of short-term funds. Secondly, it enables borrowers and lenders of short-term funds to fulfil their borrowing and investment requirements at an efficient market clearing price. Three, it provides an avenue for central bank intervention in influencing both quantum and cost of liquidity in the financial system, thereby transmitting monetary policy impulses to the real economy. The objective of monetary management by the central bank is to align money market rates with the key policy rate. As excessive money market volatility could deliver confusing signals about the stance of monetary policy, it is critical to ensure orderly market behaviour, from the point of view of both monetary and financial stability. Thus, efficient functioning of the money market is important for the effectiveness of monetary policy.

5.4   Recommendations

The study recommends that the government should set up the appropriate legal framework needs to be put in place for the smooth introduction and operation of existing and new products in the money market. There is therefore the need to further empower the regulatory institutions to enable them check and nip in the bud any perceived or potential irregularity that may arise as a result of the introduction of new products or in the transaction of the existing ones.

The study recommends that the government should put in place appropriate and sound macroeconomic policies (fiscal and monetary) to boost the development of the money market with a view to promoting productive activities and investments. Money market should be established where they do not yet exist and the government should provide prudential regulations of the entire financial market. This is needed to enable the Ugandan money market perform its

fundamental roles of providing payment services; matching savers and investors; generating and distributing information; allocating credit efficiently; pricing, pooling and trading risks; and increasing asset liquidity.

Commercial paper is a critically important funding mechanism for both financial and non-financial corporate sand, as reflected in the significant amount of commercial paper that is outstanding as a percentage of overall debt instruments. It is also quite prevalent as a funding mechanism, accounting for a significant percentage of overall short-term debt. Further research that I would recommend would be the impact of commercial uptake on Treasury bond and Treasury bill markets. Commercial paper is a money market instrument and therefore its impact and issuance on the other money market instruments like bank fixed deposits, treasury bills and bonds should be researched into. The premium attached to investing in commercial paper should be examined to determine if it's enough to entice investors in the local market to divert funds from the bank deposits, treasury bills and the repo market.

Further recommended studies should center on the profile of investors who invest in commercial paper. If commercial paper uptake is to improve in the Ugandan market then the corporate and individuals investing in it should be known and researched on in order to know why the favor this instrument.

There should be additional study on the participants of company's issuance and uptake. Companies that chose this mode of short-term finance in Uganda must be studied further to establish if there is a prevalence in a particular industry and if so why. Studies as to which

institutions participate in the issuance of commercial paper should be conducted in order to access if they contribute in any way in the limited prevalence of the instrument in our Ugandan market.

5.5   Limitations of the Study

This study encountered the following limitations; the limitation of time, availability of longer period data, unrealistic assumptions and financial constraint. The time available to conduct this research was relatively short as I would have desired. This resulted in the concentrate on a very shorter period of this narrow aspect of commercial paper uptake. In addition, an in-depth analysis of data collected could not be carried out. The fact that perceptions are dynamic in nature and tend to fluctuate when other variables are introduced was also a factor. As such, these research findings are subject to frequent alterations as well as different opinions.

The study's assumptions were also somewhat unrealistic in the real world. This study methodology depends on the assumption of an efficient market. This assumption is not valid in many situations and in particular, our local market in which this study was being carried out. Assuming that our market is semi-strong form efficient, investors should not be able to make a profit from the sale of shares on reliance of both public and private information. This is not necessarily the case in our local market. The length of time required for individual investors to respond to event signals is also random and therefore, the implication is that markets could exhibit market inefficiencies because prices do not instantly or fully reflect all available information.

One of the limiting factors was the availability of data on a consistent long time period. The availability of data proved to be elusive and difficult to come by. The data available at the both the Capital Markets Authority and the Uganda Securities Exchange as Investment and Brokerage houses was scarce and intermittent. Consistent data was only available within a relatively short period in order to be used in this study. A longer period would have been desirable in order to capture the effects of Commercial Paper uptake on the Uganda Securities Exchange: an empirical assessment of Ugandan firms.

Financial constrains also limited my ability to access further information, contact more individuals and resources that would have impacted positively in this study. Difficulty with interpreting results is another difficulty. Once data has been collected and processed, carrying our interpretations becomes a challenge. Often the interpretations are more difficult in an emerging economy like ours where the number of confounding factors multiplies keep changing and cannot be compared with certainty with those of well developed markets.

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APPENDIX 1. INTERVIEW GUIDE FOR THE KEY INFORMANTS

Dear Respondent

The researcher is a student of Uganda Management Institute pursuing a master's degree in Financial management. She is conducting an academic research study on the topic: ***"The role of Bank of Uganda in Money Market in Economic Development of Uganda.*** You have been scientifically selected to be one of the respondents to this study. You are kindly requested to take part in this study by filling in this questionnaire. The information you will provide shall be purely for academic purposes and will be treated confidentially. We do not require you to indicate your name. You are kindly requested to take part in this study by answering the following questions.

SECTION A: Respondent's Bio data

How long have you worked with bank?

What is your designation?

SECTION B:

What is the effect of Treasury bills on economic development in Uganda?

SECTION C:

What is the the effect of Commercial papers on economic development in Uganda?

SECTION D:

To what extent does interbank deposit effect economic development in Uganda?

THANK YOU