

**THE IMPACT OF BANK OF GHANA POLICY RATE ON  
COMMERCIAL BANK LENDING RATE.THE STUDY OF  
BARCLAYS BANK GHANA.**

By **KNUST**

**Cobbinah, Nicholas Ekow, Bachelor of Management Studies**

**(PG3054409)**

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## Declaration

I hereby declare that this submission is my own work towards the Commonwealth Executive Masters in Business Administration and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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## Dedication

This research is first of all dedicated to the Almighty God for his guidance. Secondly, it is dedicated to my family.

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## **Acknowledgements**

All thanks go to God Almighty for his guidance and grace that has enabled me to do this research.

I also express my profound gratitude to my supervisor, Mr. Russell Nyamede, for his guidance, comments, positive criticism and patience that has helped me complete this research.

I am also thankful to my family for their encouragement and support through thick and thin.

I say thank you and God bless to all those who encouraged me to complete this thesis.



## **ABSTRACT**

This research examines the impact of Bank of Ghana base rate on commercial bank lending with Barclays Bank Ghana as a case study. The main purpose of the study is to find the relationship between the Bank of Ghana Base Rate and the Commercial Banks Lending Rate, the relationship that exist between Lending Rate and the other variables and also find out the degree of responsiveness in the lending rate with respect to a change in the other variables. Data used is basically secondary from the Bank of Ghana Records, internet, books and publications such as magazines, journals and periodicals. Inferential statistics are used to draw conclusions about the reliability and generality of the findings. The preliminary findings depicted that Lending rate clearly was higher than both the Government Policy on Inflation and the Bank of Ghana Base rate for the years 2009, 2010 and 2011 in terms of the percentage fixed at that point in time. This could mean that Commercial Banks, of which Barclays Bank was of no exception considered very importantly the Bank of Ghana Base Rate and Government Policy on Inflation before deciding on their Lending rate. There was an evidence of a very strong positive relationship between the Bank of Ghana Base Rate and the Lending Rate. This means that as the Bank of Ghana Base Rate increases, the Commercial Bank Rate also increase and as the Bank of Ghana Base Rate decreases the Commercial Bank Lending Rate also decreases. Based on the findings of the study it was evidenced that both Lending Rate and Base Rate were likely to decline further in 2012. Thus, Barclays Bank must find other innovative ways of increasing their profit through fee incomes and commissions since incomes from interest rate will be declining. Next, the bank could also increase profit by booking a larger volume of loans in other to make up for the short fall of the interest income.

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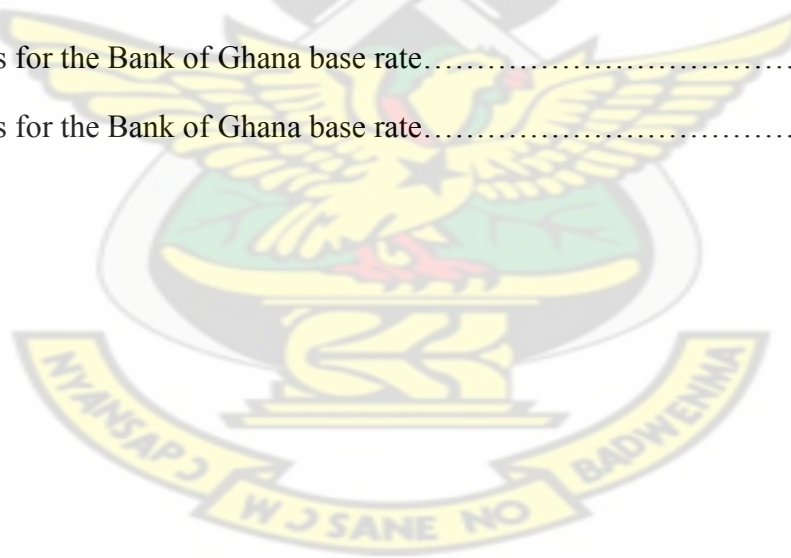


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## **CHAPTER ONE**

### **GENERAL INTRODUCTION**

#### **1.0: INTRODUCTION**

This chapter covers the background of study, problem statement, and the objectives both general and specific for carrying out the study, hypothesis, and significance of the study, scope, limitations and the organization of the study.

#### **1.1: BACKGROUND OF THE STUDY**

The Central Bank policy rate is one of the monetary tools that is use to regulate liquidity in an economy. Commercial banks play an intermediary role by borrowing at a rate from the central bank and lending it to individuals and organizations. The public usually had to borrow from the commercial banks to finance projects and programs which they do not have sufficient savings to cover. Notwithstanding the fact that there are other financing options to the public, the primary source of finance in Ghana recently is through bank loans. Such loans come at a cost higher than the price at which the commercial banks borrowed from the central bank. This study therefore seeks to examine the impact of BOG policy rate on commercial banks lending rate using Barclays Bank as a subject of study from the period of 2008-2010.

The past few years have seen a phenomenal growth in the Ghanaian banking sector. Ghana's financial sector according to the Bank of Ghana (2006) is well capitalized, very liquid, profitable and recording strong asset growth. The total banking system assets at the end of October 2006 were GHS 48,353.0 million, representing an annual growth of 35.5 per cent, as against 16.6 per cent as of the end of October 2005 (Daily Graphic, December 19, 2006). The banking sector has emerged from severe financial and reputational damage resulting from economic recession and

government debt in the 1980s and 90s, when Ghanaian banks and other financial institutions stopped lending to the private sector.

The banking sector has seen major capital injection partly because of the political stability, attainment of micro and macroeconomic stability and the government's desire to make Ghana the "financial hub" of the Sub-region. The Central bank has promoted the enforcement of statutory requirements, more stringent supervision and increasing capital requirements. The Bank of Ghana, by 2006 had licensed twenty three banks to operate in the country. In addition to the 23 banks, the sector also comprised a range of non-bank financial institutions, including several community banks established to mobilize rural savings. The ARB Apex Bank is the umbrella bank for Rural Community Banks and supervises 123 such banks throughout Ghana.

A distinguishing feature of the sector is the level of ownership by the private sector, directly or through the capital market when compared with the level of state ownership seen in the financial sector in other African countries. Furthermore, a large number of these new banks are owned and managed by Africans, and the sector boasts a number of highly skilled and experienced bankers. The new banks are trying to revolutionize access to banking services, denied the population by the imperialist banks. Several banks have already made determined effort to roll out the use of internet banking, smartcard technology, mobile phone banking and the use of biometric technology to cover all their operation areas.

The Bank of Ghana has increasingly exercised its power as a regulator in line with internationally accepted norms, and has implemented series of tough supervisory measures. For

instance, the BOG ordered members of the Board of Directors of the Amenfiman Rural Bank who received GHS 280 as Christmas gift to refund the amount with interest at current commercial rate prevailing at the bank. The Central Bank had also directed that amounts given to retired directors and a director who has resigned be retrieved (GNA, April 12, 2007). More recently, there is growing introduction of new products by the banks onto the market. Hitherto, banks that served the interest of the few elite and concentrated on investment banking, now facing an increasing competition from these new banks are now opening their doors to the poor in the Ghanaian society. The new banks are now serving all sectors of the Ghanaian society and not an elite few.

In the past it used to be very frustrating transacting business with Ghanaian banks particularly if one was not privileged to be a member of one of the few elite banks operating in the country. It was a common practice to see very long and winding queues extending several kilometers outside the banking halls of banks, especially the Ghana Commercial Bank (GCB), the Social Security Bank (now SG-SSB) and Agricultural Development Bank (ADB). In Ghana as in most parts of Africa, public sector workers receive their pay usually at the end of the month. With low bank charges and also being state-owned GCB, SSB and ADB were usually very crowded at the end of every month. For example, on the K.N.U.S.T campus, at the Commercial Area, GCB is next-door to Barclays bank, whereas long queues used to be formed outside the banking hall of the former, the latter's banking hall was (is still) less crowded.

This is the reason for decades; the banking sector was dominated by Barclays and Standard Chartered banks. Barclays Bank (known as the Colonial Bank) in February 2007 celebrated

ninety years of its operations in Ghana and Standard Chartered bank (known as the Bank of British West Africa) has been operating in Ghana since 1896. These imperialists' banks exploited Ghanaians by charging exorbitant bank charges for every little service rendered. For example, in 2003, the minimum deposit in a current account acceptable to these two foreign banks was ₵1 million (now GHS 100). How many Ghanaians could afford to lodge GHS 100 in a current bank account considering the general low incomes public sector workers earn? These banks served the interest of the few elite and the expatriate community. The irony is that these imperialist banks have now adjusted to the new rhythm in the financial sector. Their claim to being leaders in the financial sector is seriously threaten. Barclays and Standard Chartered Banks are now opening their doors to Ghanaians within the low income group. These groups of Ghanaians have been neglected by these banks for far too long. The low income group did not matter because with the few elites and other investments, these banks declared fabulous profits annually.

On the other side of the coin were the emerging state owned financial institutions. These banks served the interest of most working class Ghanaians. Most have branches throughout the length and breadth of Ghana. With about 133 branches, GCB is very popular among low income Ghanaians. In most economies, the financial sector plays a central role in enhancing growth and development. For almost a century, the Ghanaian banking sector was dominated by foreign financial institutions. Western businesses usually claim that the cost in doing business in Africa is too high, yet, most declare fabulous profits every year. The “quick return” mentality practiced by western financial institutions in Africa in order to satisfy their shareholders, means they usually looked for investments which provide the highest rate of return. This explains the neglect

of a larger segment of the Ghanaian society by 'old' Barclays and Standard Chartered. Again, some financial institutions were unwilling to commit to long term financing of development of projects in African countries where there is perceived high political risk. Perhaps, all these are about to end.

The Government of Ghana has recently put a hold on the issuance of licenses to new banks in the country. This was disclosed by the Vice President, Mr. John Mahama at the bi-annual dialogue meeting between the presidency and the private sector. This was because the Ghanaian economy was deemed a small market and Government must look for ways of strengthening the banks here rather than opening up for more competition.

## **1.2: PROBLEM STATEMENT**

There is a general assertion that the Bank of Ghana policy rate has a lot of effect on the commercial banks lending rate by way of increasing cost of borrowing. The study seeks to find out whether or not the policy rate has adversely affected the commercial banks lending rate of Barclays Bank Ghana. This has motivated the researcher to conduct the study.

## **1.3: OBJECTIVES**

Generally, this study had sought to examine the impact of BOG policy rate on commercial banks' lending rate using Barclays Bank as a case study.

Specifically, this study would;

1. Examine the relationship between BOG Policy Rate and Lending Rate of commercial banks.
2. identify the relationship that exist between Lending Rate and other variables (Government Overhead Cost, Government Policy on Inflation, Other Sources of Finance and Profit Mark-Up) of commercial banks.
3. the degree of responsiveness of change in lending rate to a changes in the other variables of commercial banks.

#### 1.4: HYPOTHESIS

1. **H:** there is a degree of responsiveness of change in lending rate to a change in the other variables of commercial banks  
**Ho:** there is no degree of responsiveness of change in lending rate to a change in the other variables of commercial banks
2. **H:** there is a relationship between Bank of Ghana Policy Rate and Commercial Banks Lending Rate  
**Ho:** there is no relationship between Bank of Ghana Policy Rate and Commercial Banks Lending Rate
3. **H:** there is a relationship existing between Lending Rate and other variables (Government Overhead Cost, Government Policy on Inflation, Other Sources of Finance and Profit Mark –Up) of commercial banks.

***Ho:*** there is no relationship existing between Lending Rate and other variables (Government Overhead Cost, Government Policy on Inflation, Other Sources of Finance and Profit Mark –Up) of commercial banks.

### **1.5: JUSTIFICATION OF THE STUDY**

The bank of Ghana base rate is being discussed because it changes the lending rate of commercial banks. A change in the policy rate changes the lending rate of commercial banks and thus, reduces or increases the amount of money available on the market for business and individuals to trade with. This explains why it is a very important issue of concern.

The banking sector and Barclays Bank Ghana in particular would benefit from this study as a guiding principle to manage its business of banking in that, a fall in the policy rate would also reduce the lending rate hence, encouraging the bank to increase its loan book, get more interest and hence enhance its profit.

This study would also benefit researchers and students as a reference into further studies.

Policy makers and the government of Ghana will be guided to work towards decreasing or increasing the policy rate, hence, changing lending rates and affecting amount of funds available commercial banks for borrowers.

### **1.6: SCOPE OF STUDY**



This research will analyze the effects of the Bank of Ghana policy rate on commercial banks lending in the Ghanaian banking sector in general and Barclays Bank Ghana Limited in particular.

### **1.7: LIMITATION OF THE STUDY**

Considering the nature of the study the source of reliable and important data is the Bank of Ghana Records department. Several efforts to get data for this research causing a lot of delay in starting the project. The delay in assessing the data was as result of bureaucracy in the department. Notwithstanding the challenge, the researcher persevered till some data were received to get the study started and to complete it.

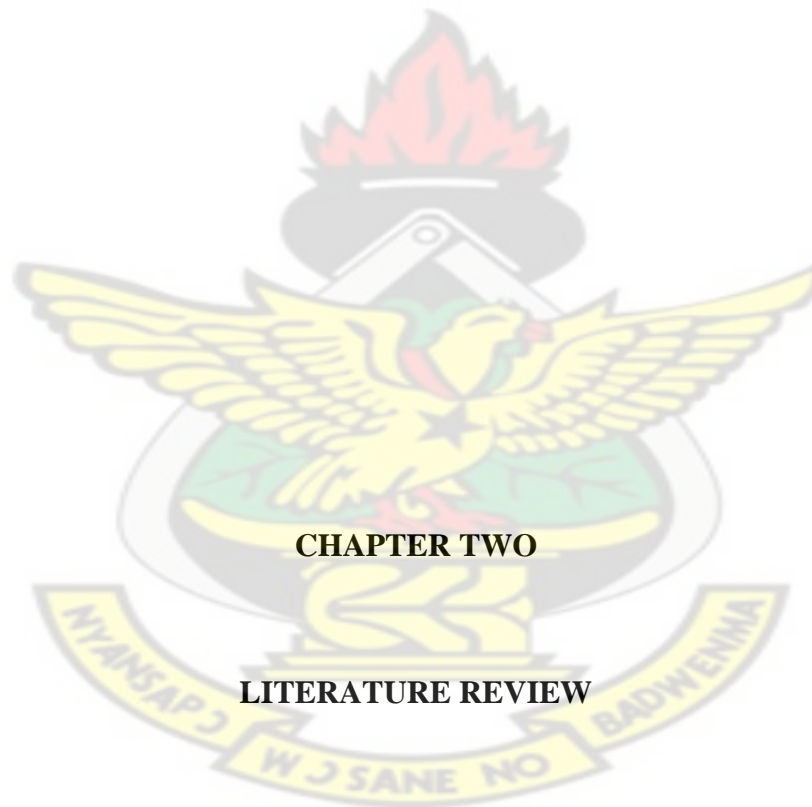
### **1.8: ORGANIZATION OF THE STUDY**

This section outlines every investigation that was undertaken in order to fulfill the entire research. Chapter one, the general introduction of the study covered the background of study, problem statement, the objectives both general and specific for carrying out the study, hypothesis, significance of the study, scope, limitations and the organization of the study.

Chapter two reviews related literature where both a theoretical framework and empirical analyses were provided while Chapter three, explains the research methodology with regard to the study's design, sampling method, data sources, study instruments and analytical tools and techniques as well as the modeling for the study.

Chapter four presents the discussion of the research findings while Chapter five summarizes, offer recommendations and conclusion for the study.

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## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0: INTRODUCTION

This chapter looks at the theoretical framework and the empirics of similar works, as well as the model examining the effect of the bank of Ghana policy rate on commercial banks lending.

Theories

## **2.1: THEORY OF BORROWER DEPENDANT ON BANKS**

The view that some borrowers are dependent on banks for financing stems from economic models of asymmetric information that help explain credit market imperfections. The central idea is that the costs of obtaining information about a firm's condition, as well as bankruptcy costs, are differentially greater for smaller firms (Diamond, 1984; Fama, 1985; etc.). Thus, small firms find it more difficult and more costly to obtain credit. In addition, a special feature of banks is that they may have a comparative advantage over other intermediaries in information processing and monitoring that enables banks to lend to smaller firms at lower cost (Thakor, 1995; Swank, 1996; and Neuberger, 1998).

These theories provide a rationale for observed differences in large and small firm financing. Generally speaking, larger firms have a greater array of financing options, including equity, long-term debt, and short-term debt, in addition to bank loans and internal cash flow. In contrast, smaller firms appear to have much less access to capital markets and depend more on bank loans, trade credit, and internal funds for financing (Mash, 1982; and Abor, 2004). This means that the greater dependence of smaller firms on bank financing, in turn, suggests they may be more vulnerable than larger firms to disruptions in credit availability.

A number of studies have provided evidence that these credit market imperfections may explain differences in behavior of small and large firms during periods of tight credit. For example, small firms appear to account for a larger share of the decline in manufacturing activity and reduced inventory demand that follows a monetary tightening (Gertler and Gilchrist, 1994). Similarly, small firms appear to have less access to bank and non-bank external finance in periods of monetary tightening (Oliner and Rudebusch, 1994). This behavior is consistent with the view

that restrictions in the availability of bank credit could have macroeconomic consequences by affecting the investment and spending decisions of bank-dependent borrowers.

## **2.2: MONETARY POLICY AND BANK LENDING**

For monetary policy to operate through a credit channel, not only must there be bank dependent borrowers but monetary policy must also directly affect banks' willingness to lend. To determine whether monetary policy affects bank lending, some studies have examined how banks adjust their portfolios in periods of monetary tightening, while other studies have looked at changes in the price and non-price terms of lending (Keeton, 1979; Stiglitz and Weiss, 1981; Romer and Romer, 1990; Bernanke and Blinder, 1992; Gertler and Gilchrist, 1993).

### **2.2.1: Bank portfolio behavior**

One approach to identifying a bank lending channel is to see how banks alter their assets and liabilities during periods of monetary restraint. Accordingly, a number of studies have examined how banks adjust loans, securities, and deposit and non-deposit liabilities to changes in monetary policy. Several stylized facts about bank portfolio behavior have emerged from this line of research (Bernanke and Blinder, 1992; Romer and Romer, 1990). First of all, in response to a tightening of policy, bank transactions deposits or core deposits fall immediately, then total bank loans decline, but only after a significant lag of two to three quarters. Subsequently, banks are able to maintain lending in the face of a decline in core deposits by selling securities and issuing managed liabilities such as time deposits and Eurodollar borrowings. Finally, the eventual decline in bank lending is roughly contemporaneous with a decline in economic activity as measured by industrial production.

Taken as a whole, these results do not resolve the debate over the existence of a credit channel. While there is some evidence that bank lending declines when policy is tightened, the time lags appear quite long. Moreover, the contemporaneous decline in loans and output is consistent with a reduction in lending as it causes output to fall. According to Morris and Sellen (1995) this is equally consistent with a decline in output causing a fall in loan demand.

An additional problem with many of these studies is that they use total bank loans, which include consumer and real estate lending, rather than business loans. Based on the discussion of credit market imperfections, business lending would appear to be the more appropriate measure in testing for a credit channel. Indeed, given the large number of non bank credit sources for consumer and real estate lending and the extensive securitization of these loans, it is difficult to believe the informational problems that make small businesses dependent on bank credit apply to other types of lending (Morris and Sellen, 1995).

Focusing on business lending still does not necessarily resolve the debate. Gertler and Gilchrist (1993) conducted a study that specifically looked at how bank business lending responds to policy tightening. Their study reveals that business lending does not decline when policy is tightened.

They concluded that the entire decline in total lending comes from a reduction in consumer and real estate loans. Moreover, they added, when the analysis is narrowed further to loans to manufacturing firms, bank lending actually shows a significant increase in response to tighter

policy. Indeed, for manufacturing firms, most of the increased lending appears to go to large firms; while loans to small manufacturing firms are largely unaffected by policy tightening. Thus, there is little evidence banks actually reduce lending to small firms when monetary policy is tightened.

In contrast to Gertler and Gilchrist (1993) study, Kashyap and Stein (1995) find evidence that business lending may respond to a tightening of monetary policy. They examine the lending behavior of small and large banks, rather than loans received by small and large firms. They find that when policy is tightened, both total loans and business loans at small banks fall, while loans at large banks are unaffected. The differential response of small banks may indicate they have less access to alternative funding sources than large banks and so are less able to avoid the loss of core deposits when policy is tightened. Since small banks lend primarily to smaller firms, their finding is consistent with the view that monetary policy may work, in part, through a credit channel.

Another line of research consistent with Kashyap and Stein examines the behaviour of business loans not made under terms of a loan commitment (Sofianos et al., 1990; and Morgan, 1992). These loans would appear to be most vulnerable to monetary tightening. Their study reveals that uncommitted loans fall in periods of monetary tightening, while loans made under the terms of an existing commitment are unaffected. Thus, restrictive policy may work primarily by reducing the availability of bank credit to business borrowers without a loan commitment.

### **2.2.2: Terms of bank lending**

Given these conflicting results, most researchers agree that analyses of aggregate bank balance sheets need to be supplemented with more detailed information on bank lending behavior. One limitation of balance sheet data is that they contain no information on the rates banks charge on new loans or on other terms of loan contracts. In addition, the value of loans on banks' balance sheets may change for a variety of reasons having little to do with monetary policy. For example, while loans on balance sheets could decline as a consequence of restrictive monetary policy, they could also fall as a result of increases in nonperforming loans or because banks sell loans to other financial institutions.

Information on the terms of bank lending may also be useful in distinguishing between the “lending view” and the “credit rationing” explanations of a bank credit channel. In this case, Kashyap and Stein (1995) note that the lending view is a statement about the relative magnitude of shifts in the demand for and supply of loans when policy is tightened. According to the lending view, the volume of new loans should decline and loan rates should rise relative to market rates when policy is tightened. This behavior they added would indicate loan supply shifts are relatively larger than loan demand shifts. In contrast, most theories of credit rationing suggest that, while the volume of new loans should decline when policy is tightened, bank loan rates should actually increase less than market rates.

Recent studies on bank lending using survey data on the terms of lending have found little evidence in favor of either credit rationing or the lending view. Berger and Udell (1992) find little supporting evidence. While they do find a key element of rationing, a sluggish response of bank loan rates to market rates, other characteristics of rationing are not present. In particular,

they noted that interest rates on loans made under commitment are as sluggish as rates on uncommitted loans. While Berger and Udell (1992) do not directly examine the lending view, the stickiness of bank loan rates found in their study suggests banks do not reduce the supply of new loans when monetary policy is tightened.

### **2.3: EFFECT OF BANK OF GHANA POLICY RATE ON COMMERCIAL BANKS LENDING**

According to the Graphic Business of Tuesday, February 2-Monday, February 8, 2010, Commercial banks in the country are to enjoy some form of waivers from the Bank of Ghana (BOG) as an incentive for them to reduce their interest rates in response to falling inflation and relative macroeconomic stability.

The Governor of the Central Bank, Mr Kwesi Bekoe Amissah-Arthur, told the Graphic Business that banks that responded positively to market and macroeconomic indicators to get interest rates down would be given special attention and assistance should they fall foul for any of the banking regulations. But while the banks welcome such a gesture, they insist on waiting for the Bank of Ghana to reduce the rate at which it lends to them before they can revise their rates downwards.

The banks explained that since the BOG served as the lender of last resort, its rate must come down to avoid a situation where they would borrow at higher cost and lend to customers at lower rates. The Graphic Business's checks with some of the banks revealed that they had done various appraisals and simulations of their risk factors vis-à-vis the falling interest rates. Although the



governor would not disclose the details of the kind and form of waivers to be granted, he indicated that the banks stood to gain from the waivers. However, the waivers would include being flexible some rules governing their operations. However, the BOG would not compromise deliberate means to flout the rules.

Meanwhile, further checks by Graphic Business revealed that the major reasons adduced by the banks for charging such higher interest rates were many, and for them, the determining factors were beyond their control. Inflation has been reducing since the middle of the year, closing the year at 15.97%, the lowest in the whole of 2009. The Bank of Ghana has also cut the prime rate from 18.50% to 18% in October last year, a move that saw no transmission onto cost of credit in the country, as interest rates still hover over 32%. Since the BOG now uses the inflation targeting policy, it wants to add some creative use of its moral suasion powers to compel banks to comply and respond positively to general fiscal and monetary policy measures.

The Government has indicated firmly that it will further reduce domestic borrowing so as not to crowd out the private sector when it comes to borrowing to expand their businesses. One of the major reasons that account for the high Treasury bill rates is high government borrowing from the domestic market but this has reduced this year with a pledge to further reduce it to favor the private sector.

Commercial banks as financial intermediaries are a major source of funds to the private sector and therefore should they reduce the interest rates, it would have a positive rippling effect on the businesses of the private sector, which would use increased access to finance to grow their

businesses and employ more people. Analysts expect the governor to announce a further reduction in the prime rate and force the banks to respond appropriately but Mr Amissah-Arthur did not give any indications as to what he intends to do about the prime rate at the next Monetary Policy Committee (MPC) meeting.

The Head of Corporate Communications at Intercontinental Bank Ghana Ltd, Mr Kenneth Awuku, thinks that the creative use of moral suasion by which banks would be given flexibility in meeting deadlines was in the right direction but slashing the prime rate should precede all other measures aimed at inducing a reduction in interest rates.

“Although the treasury bill rates have been coming down, you cannot rely on those rates when you are lending; it is essential mostly when paying interest on deposits”, Mr Awuku told the Graphic Business in reaction to the Bank of Ghana’s proposal to use a measure of moral suasion to get banks to respond positively to price stability in the economy.

Commercial bankers also argued that the banks were also among the category of companies that pay higher taxes in the country in addition to the National Stabilization Levy that limit their efforts to give value to their stakeholders to passing part of the cost to the customer. In this regard, most banks are waiting to see the Bank of Ghana rate go down; the central bank has to take the first step to drive the banking industry, Mr Awuku and two other divisional heads of the bank said. The Managing Director of Merchant Bank, Mr Peter Iliasu, welcomed the innovative use of moral suasion, saying it was one of the ways the central bank could effectively court the

local banks to make the system strong. Mr Iliasu thinks that there would have been no need for such a waiver if the country had an effective credit rating system.

“Our pricing is as a result of inherent risks, inflation and tenor of the facility, so if inflation reduces and the profile of borrowers was well known, you would not even need such a measure,” the managing director of Merchant Bank said. The seasoned banker further advised the central bank to forge closer collaboration with commercial banks to make the banking system efficient, adding that “whatever they want us to do they should only ensure that there is good and close monitoring.

According to the Graphic Business of Tuesday, March 2 –Monday, March 8, 2010, the governor of the Bank of Ghana, Mr Kwesi Amissah-Arthur, had told the Graphic Business that the Monitoring Policy Committee (MPC) of the bank is closely monitoring the developments in the economy to ascertain the impact of the reduction in the Central Bank’s policy rate in the economy. The MPC at the end of its review of the economy over the past months, reviewed its policy rate downwards from 18 percent to 16 percent, signaling banks to follow suit by reducing their interest rates.

The governor of the Central Bank recently gave the assurance that the Central Bank would react swiftly should it identify any negative situation that may jeopardize the steady improvements in the macroeconomic fundamentals especially, with regard to inflation as a result of the drop in the bank of Ghana Policy Rate. Since the announcement of the reduction in the bank’s policy rate by 200 basis points from 18% to 16%, some economic analysts have raised concerns that this may

encourage more borrowing and as a result may put more money in circulation and hence may have a negative effect on inflation.

According to him, month-on-month inflation had urged up since the last quarter of 2009 and expressed the fear that the projected drop in inflation between 7.5% and 11.5% may not be feasible.

The governor of the Central Bank asserted that the MPC took into consideration all the various options and was of the view that the cut was necessary. “After a careful evaluation of the economy taking into consideration all the facts on the ground, we felt that we did not have to continue with the small cuts in policy rates but go big this time around”, he added. He further reiterated that much as the MPC recognized the concerns raised, the MPC still believed that what had been done was a strong option for which positive results were expected. However, he reiterated that the bank was monitoring the situation closely and any negative impact would compel the bank to respond appropriately to keep things on track.

The cut in the prime rate have forced business leaders and captains of the manufacturing industry to mount pressure on banks to reduce their base rates particularly following the recent heavy cut announced by the MPC. Analysts say some of the macro-economic indicators which the banks use to price their base rates have seen a remarkable decline; inflation is down to 15%, Treasury bill rates are down to 17% among others. However, the banks say investors have become very savvy in their demands, making the cost of funds very expensive. They point to some investors demanding higher interest rates on their funds or investments.

Again, the banks point to the fact that most funds invested in their treasury were short term funds, the cost of which is also high, a situation, they say, hamper their ability to lend in the longer term to the productive sector. They also point to the risk profile of most customers, which accounts for the high cost of funds.

The central bank has also indicated its intention to use moral suasion to compel the banks to cut down their base rates but the business community believes the commercial banks are being slow in adjusting their rates. Policy rates presently hover between 30 and 33% on average; a situation which the business community feels was too high for one to conduct good and profitable business.

The Governor was however, optimistic that banks would definitely reduce their base rate to appreciable levels to reflect the downward trend of the policy rate. “There is no legislation the central bank can use to compel the commercial banks to reduce their base rates because of the liberal market in which the country operates in”, Mr Amissah-Arthur stated.

A liberal market economy allows the forces of demand and supply to be the major determinants of real interest rates, a situation which makes a direct market intervention inappropriate. However, Professor Stephen Adei, former Rector of Ghana Institute of Management and Public Administration is of the view that the government must introduce a policy that will compel commercial banks to drive their interest rates down each time the Bank of Ghana reduces the policy rate.

He says the huge bad debt and non performing loans on the books of banks were being passed on by the banks to the customers of the banks, adding that businesses should not be over burdened by the cost of the bank's inefficiencies. Professor Adei who was speaking to Joy Business on the sidelines of the ongoing opportunities conference in Accra said the difference between the policy rate and the commercial bank's base rates were not too wide. The policy rate announced by the central bank currently stands at 16% whilst the minimum interest commercial banks charge on loans is 30%, a difference of 14% approximately.

Although the banks cite soaring inflationary conditions as a contributory factor, the country is gradually experiencing lowering inflation figures. The rate of inflation in Ghana fell to 14.78% in January from 15.97% in December last year, registering the seventh consecutive drop.

Professor Adei said the government had a responsibility to define a framework to guide the rates commercial banks charge. "The government has a responsibility to define a framework in which the private sector operates"

"We are saying that if you see a sector which has development implications for your country you cannot say that you will be hands-off, for market forces to determine prices of interest rates", he stated, adding, that the banks will make "genuine money" when the margin is reduced and access to loans improve.

Annualized inflation in Ghana fell for the 11th consecutive month to 10.68 percent in May, nearly a one-percentage-point drop on the 11.66 percent reported for April, the statistical office said.

Here are initial comments from analysts:

'Another notable expected fall.....the attention however is where inflation goes from here. On the balance of factors, this appears to be the end of the fall for this year. The recent 10 percent upward adjustment in public sector wages (with further increases expected from the implementation of the Single Spine Salary Structure), the above 50 percent upward adjustment in utility prices are very likely to occasion price cost pressures from this month. It will be very difficult for government to achieve its year end single digit inflation target.' (Kobla Nyaletey, Barclays Ghana Treasury)

'The dip in May's inflation rate by 97.85 basis points to 10.68 percent will undoubtedly continue to enhance macroeconomic stability going forward. Nevertheless, the ultra-low figures also do reflect a rather sluggish rebound in the pace of economic activity. We still have a bit of downward expectation on the pricing front and this could last in the next two months. But increases in fiscal spending on increased wages, higher utility tariffs and anticipated lowering of interest rates in the third quarter could reverse this trend.' (Sampson Akligoh, Databank Financial Services)

'The May reading is in line with expectations. Clearly, the year-on-year disinflation trend is still on, aided by base effects and currency stability. We believe that this will continue with the June

reading likely showing a dip into the single digits. However, it is important to note that month-on-month inflation is picking up pace and we expect price pressures to remain considerable, given the impending electricity tariff increases as well as the recent 10 percent hike in public sector pay. Against this backdrop, we see year-on-year inflation rising above the upper band of the Bank of Ghana's target range of 7.2-11.2 percent by year-end. Furthermore, we believe that the central bank's monetary policy committee will adopt a cautious stance at its July meeting and cut the prime rate by only 50 basis points, given the widespread expectation for inflation to rise in the second half of 2010.' (Lisa Lewin, Business Monitor International)

'While the disinflation trend continues, the July rate cut is still on, in our view. Of course, the key question is when we might start to see the pressure from wage increases, and the adjustment to utility prices feeding through. While the overall economic backdrop is always a key influence, note that the 10 percent wage increase only takes effect from July. The backdating of the pay increase as far as we understand it will come through in September, but in the context of the utility price increases, people may not actually feel that much better off -- limiting the likelihood of a pronounced secondary impact on inflation. From this perspective, everything still supports a Bank of Ghana rate cut of 100 bps in July and there is still urgency behind reducing debt service costs further. In all a good inflation print, and despite the perceived looming threats on the horizon, it does not change our view that more monetary easing is still likely.' (Razia Khan, Standard Chartered Bank)

According to the Graphic Business of Tuesday, July 13-19, 2010, the Monetary Policy Committee (MPC) of the Bank of Ghana began its regular meeting from July 12 to review



developments in the national economy. The meeting was scheduled to end on Friday, July 16 and the MPC will announce any changes in the policy rate which serves as the benchmark for commercial banks to fix their base rates. Some analysts say a reduction in the policy rate will go a long way to bring the cost of borrowing down.

At the last MPC meeting, the committee reduced the policy rate by 100 basis points from 16% to 15%. Since November last year, the policy rate has been systematically reduced from 18.5% to the present level of 15%. The reduction in the rate was largely due to the improvement in the macroeconomic environment. Inflation figures which stood as high as high as 20.06% in May last year stood at 10.68% at the end of May this year with indications of going down for the month of June.

The Treasury bill rates have equally subsided over the past months from a high of 20% in May last year to 12.86 at the beginning of July. The country's foreign exchange market has also seen some level of stability. The Cedi to the US dollar GHS 1.4 while the British Pound Sterling stands at GHS 2.1. The country's commodities have equally done pretty well with gold price rising to US\$1256 per ounce while cocoa price is around US\$3115 per metric tonne.

At the April meeting of the MPC, the committee undertook a review of the macroeconomic situation against the background of developments in the global economy. The committee also assessed developments in the economy with respect to the pace of domestic economic growth and the execution of the 2010 budget.

According to the Head of Ecobank Stockbrokers Limited, Mr Iddrisu Mahama, “we expect a two hundred basis point reduction in the policy rate from the current 15 to 13%.” He was of the view that the economic fundamentals such as inflation and the Government dated securities were all going down. That, he said should signal policy direction to further reduce the policy rate, which is the rate at which the central bank lends to commercial banks. Additionally, he noted that with the expected increase in utilities prices as a result of the recent hikes in the tariffs, it would be prudent for the Central Bank to further reduce its policy rate to make cost of funds easier for businesses.

On the basis of the discussion and the prospects for the continuation of the disinflation process and improvements in economic activity and output growth, the MPC reduced its policy rate by 350 basis points from 18% to 15%.

Although most commercial banks followed suit with the reduction in their respective base rates, the Bank of Ghana strongly believes that their base rates should have gone down further. However, the May 2010 Annual Percentage Rates (APRs) as released by the Bank of Ghana, show the average deposit interest rates of the banks, contrary to expectations, are rather widening.

Compared with the March release, one sees that while the average APRs charged by all banks in all sectors have increased, average deposit interest rates paid by the banks to depositors have increased, leading to the widening of the spread or margins enjoyed by the banks. A close look at the numbers released by the Bank of Ghana revealed that of the 26 banks, 17 reduced their

average deposit interest rates paid to customers (depositors). These declines were in the range of 105 to 594 basis points.

Two banks, Merchant and Barclays, recorded significant declines (in excess of 500 basis points) of 594 and 564 basis points respectively.

Standard Chartered Bank, Access Bank, United Bank of Africa, Unibank and Sahel Sahara Bank cut respective borrowing rates in excess of 200 basis points. The remaining 10 banks which reduced their borrowing rates cut their average deposit rates between 56 and 188 basis points. Five banks, the Agricultural Development Bank, Ecobank, Prudential, SG-SSB and Stanbic left their borrowing rates unchanged at the end-March levels.

Four banks marginally increased their borrowing rates between 17 and 80 basis points. They are HFC (80), International Commercial Bank (55), National Investment Bank (19) and Intercontinental Bank (17).

The industry, as a whole, recorded an average of 137% basis points in their borrowing rates-an indication of falling cost of funds. The MPC announced the policy rate at 13.5% on Friday, July 16, 2010.

Private sector umbrella organizations such as the Association of Ghana Industries (AGI), the Ghana Union of Traders Association (GUTA) and the Ghana National Chamber of Commerce and Industry (GNCCI) have cautiously welcomed the news casting doubts on the sustenance of

the single-digit inflation which has eluded the economy since April 2006, when inflation reached single digit.

All the organizations appear to unanimously hold the view that the single digit inflation had been possible because the government had squeezed spending to a large extent. Their fear is that once the government starts releasing money into the economy, it would fuel inflation, as more money would start to chase fewer goods.

“The single-digit inflation is a good thing but we are skeptical about the sustenance because the government is not spending”, the AG President, Nana Owusu-Afari, said. But the Finance and Economic Planning Minister, Dr Kwabena Duffour, however, debunked the assertion that the government was not spending stating that “all those who think the government is not spending have got it wrong”.

That, he explained, was because apart from targeting a fiscal deficit of about 7.5% at the close of this year, payments for the year had included huge transfers to settle colossal arrears incurred between 2007 and 2008. Indeed, checks from the bank of Ghana data showed that for the first six months of the year, the Government’s fiscal operations resulted in a narrow deficit, on a cash basis, of GHS 821.8 million (3.2% of GDP) compared with GHS 812.7 million (3.1% of GDP) projected.

The Finance Minister pointed out that about GHS 700 million was spent this year on arrears alone, leaving over GHS 1 billion outstanding.

Inflation for June reached a single digit at the end of June, which is the first time since 2006, following persistent downward slide in the customer price index since last year. The latest release represents a drop of 1.16% from the previous month's 10.68% and also follows a consistent pattern in which the figure has been dropping over the last 12 months. The rate of inflation has been falling for 12 consecutive months and the largest decline in 2010 was recorded when it dropped by 1.66 percentage points, followed by the January drop which was 1.19 percentage points. The other months recorded declines below one percentage point and the cumulative decline between January and June 2010 is 5.26 percentage points from 14.78 to 9.52%. In 2006, inflation hit the single digit mark in the months of March and April, but the year ended with a 10.50% rate of inflation. The yearly average for 2006 is 10.96% which is narrow miss of the single digit target that the then Government wanted to attain to be able to meet the full West Africa Monetary Zone (WAMZ) convergence criteria.

In March 2006, the annualized rate of inflation stood at 9.9 % and the April figure was marginally lower than that of March. The President of the AGI, Nana Owusu-Afari said Ghana needed to change the structure of her economy to make some of the macroeconomic achievements sustainable. He said, the government needed to give more incentives to manufacturing and not trading. Perhaps, the government would find it difficult to provide incentives to the manufacturing sector, because any attempt the usual tariff barrier tool to stem indiscriminate importation of merchandise will not go down with GUTA and other private sector bodies.

The AGI president stated that “To sustain this, we need to look at the fundamentals of the economy. The government should step in and give incentives for local production and not trading. This is the only way to make it sustainable”. Nana Owusu-Afari said the low inflation should result in cuts in interest rates. The high interest rate regime, he said was responsible for industry’s slow growth. The president of GUTA, Mr George Ofori, said “although inflation is at the lowest in many years, taxes on the goods we deal in, such as vehicle spare parts, used clothing and electrical have all gone up so much that we do not even think about the rate of inflation, no matter how low”. According to him, once the duties on imported products which are not largely produced in Ghana are high, the members of the association have no option than to push the extra cost in terms of taxes on the consumers. “Low inflation is a laudable thing and a plus for the government but with high rates of taxes, cost of credit and utility tariffs going up, the effort could be easily negated”, he said, adding that the phenomenon had drastically reduced sales.

But Mr Ofori remains passionate about high taxes, saying “we are very disturbed about this because members are not pleased with the turn of events and therefore, would want to ask the government to take a second look at the taxes on imported goods. Besides, he said, interest rates charged by commercial banks were another headache for traders.

“The interest rates are also another negative as far as our business is concerned because that also erodes the gains made in bringing inflation down”.

The issue of inflation has been a major topic since the policy rate began falling but the banks have been highly reluctant to respond citing many reasons. “We borrow heavily to import our goods only to have them remain on our shelves while the interest on the credit accrues”, he said.

Like the AGI, GUTA is also worried over the recent hikes in utility tariffs which he said was also impacting on the businesses of manufactures and the general purchasing power of the consumers. The Chief Executive Officer of the Ghana Chamber of Commerce and Industry (GNCCI), Mr Sal Doe Amegavie, said “the GNCCI is more concerned about the sustainability of this relatively low inflation and, therefore, urged the government to put in place pragmatic measures necessary for a further drop in inflation level in the coming months to ensure that this does not become a nine day wonder”. According to him, the 9.52% inflation recorded for June is definitely good news for the country as a whole and the business community in particular. The Chamber, however, was of the view that some of the government’s policies towards achieving the low inflation were having a negative effect on the potential of the private sector to operate efficiently.

He also stated that the austerity policy which had resulted in the reduction of government spending was negatively affecting the private sector as complaints have been received from its members of significant fall in demand in recent months. “We therefore urge the government to take a second look at that policy as further delays in payment of services rendered to the government will further dampen the activities of the business community”, he said. Again, Mr Amegavie associated himself with assertions by the GUTA president that while inflation had

declined, interest rates had remained high to the detriment of business operations in the country and called on the banks to lower their interest rates.

The Monetary Policy Committee of the Bank of Ghana on 16<sup>th</sup> July 2010 cut the policy rate from 15 to 13.5%, citing the consistent drop in the rate of inflation, which recorded a single digit of 9.52% for the month of June this year. The cut in the policy rate means that the committee is convinced that the disinflationary pressures and the resultant low inflation rate would persist.

The Monetary Policy Committee of the Bank of Ghana has waded into the public of whether the country's economic managers should pursue the path of economic growth or continue with its current inflation targeting regime. At its 40<sup>th</sup> session to review the health of the economy, the Central Bank Governor, said the MPC had noted the public debate about the trade-off between inflation and growth, the pace of the disinflation process and its implications for growth.

The Governor said the benefits from the current disinflation outweighed the short term cost to growth. He said in the medium term, the low inflation environment will be growth enhancing. The cut in the policy rate is the latest attempt to get commercial banks to lower their own lending rates. The anticipated continued slowdown in inflation in the medium term, together with the need to restore the growth process, provides scope for the monetary policy easing. He expected inflation, which last month fell into single digit for the first time in over four years, to remain around the bank's central target of 9.2%. This he said would be achieved in part by lower food and petroleum prices as well as fiscal consolidation.



Though all the macroeconomic indicators such as Treasury bill rates, inflation and the monetary policy rates have seen consistent decline over the past 12 months, which are supposed to reflect in lower interest charges on loans, commercial banks still maintain rigidly high interest charges which hovers around 28 to 30%. The governor, who singled out Standard Chartered Bank Ghana for praise for their quick response to policy cuts, said the Central bank would give some incentives to commercial banks whose cost of borrowing reflected the policy rates. It is expected that the central bank will easily yield to request for some grants by the banks that respond to policy rate.

Ghana, which is also Africa's second-biggest gold miner and due to become an oil exporter by the end of the year, is eager to transform its aid-dependent economy and is hoping that a low prime rate will spur more business activity.

According to the Graphic Business of Tuesday, August 3-August 9 2010, the Ministry of Finance and Economic Planning and the banking industry are locking horns over whether interest rates should immediately drop further after inflation hit a single digit while the Bank of Ghana policy rate was also revised downwards. While the banking chiefs argue that an overnight reduction in rates at which they lend would make them unprofitable and erode the dividends due shareholders, the Finance Ministry, whose activities largely impact on the industry, has called for a further and immediate reduction in interest rates.

The Minister of Finance and Economic Planning, Dr Kwabena Duffour, said the disinflation process and price stability in the economy was sustainable because they were founded on prudent economic management.

But both the immediate past President of the Ghana Association of Bankers (GAB), Mr Jude Arthur, and his successor, Mr Asare Akuffo, maintained that the banks would require some patients from government and the public could not taste a reduced interest rate regime, because their funds were tied in to fixed deposits which needed to mature before the fresh funds could be on-lent at lower rates. That notwithstanding, some banks have started revising their base rates downwards, with the lowest being the non-tax paying Agricultural Development Bank, which has settled at 21.5%. The Minister said the lowering inflation was not because of squeezed government spending but well targeted monetary and fiscal policies that had yielded good results, adding that the expenditure outturns did not support the notion that the government was not spending. “Total expenditure in 2008 was GHS 8.2 billion, compared to GHS 9.1 billion spent in 2009, an increase of 11% over the 2008 expenditure”, Prof. Newman K.Kusi, who read the speech on behalf of the Finance Minister, stated. He added that in the first half of this year, the government incurred an expenditure of GHS 5.4 billion, up from the first half 2008 figure of GHS 3.6 billion and the GHS 4.2 in 2009, an increase of 16.7% in 2009 and 50% in 2010 over the 2008 figures.

The government capital expenditure,(spending on infrastructure and assets) in 2008 was GHS 1.9 billion with a corresponding figure in 2009 of GHS 2.1 billion, while that for the first half of the year amounted to GHS 885.7 million compared to the GHS 1 billion each for 2009 and this year. “In fact, government has been ingenious by frontloading some expenditures not only to alleviate the hardships of creditors but also to expedite the growth process”, Prof Kusi stated, adding that

the government had also been current on transfers to the District Assemblies Common Fund, the Ghana Education Trust Fund and the National Health Insurance Levy.

In the same vein, the government also paid GHS 160 million in arrears that dated back 2008 to road contractors and other debts such as the part payment of the Tema Oil Refinery debt of GHS 445 million owed the Ghana Commercial Bank. “What does it mean therefore when critics cite the failure of government to pay contractors and discharge other payments obligations such as the servicing of the TOR debt to the GCB are starving the banks of cash inflows, thus making it difficult for them to reduce their lending rates”, the minister quizzed. But the bankers will have the answers, as they maintained that the government owed road contractors well over GHS 800 million that was having a knock-on effect on the bank’s lending ability. It was also contributing to their non-performing loans (NPLs), which is a major determinant of the base rate of banks. The banks maintained that the retail sector continued to pose the greatest risk to loan recovery and gave an indication that the banking sector might just consider squeezing credit to that sector, irrespective of its importance to the general economy. The NPLs, which is the ratio of loan losses to gross advances, grew to 20 percent in February 2010 but reduced to 18.7% in May 2010. But this level is still higher than the recorded NPL ratio of 11% in May 2009. According to the Bank of Ghana, its credit conditions survey conducted in June 2010 showed a general net tightening of credit, especially to small and medium-sized enterprises and households for mortgages. The SMEs had credit tightened to them through increases in margin for riskier loans and security and collateral requirements.

However, these will not deter the finance minister, himself as an astute banker, to treat the banking sector with kid's gloves, pointing out that the 91-day and 182-day treasury bill rates had all dropped from 25.8% and 28.8 percent respectively in the second quarter of last year to the region of 12.9% and 13.4% respectively in the second quarter of this year. "Commercial banks' average lending rates, however, continue to remain stubbornly high. Both the base rates and the lending rates averaged 32.75% in 2009. While the average base rate has fallen to 28.7% at the end of the first half of the year, the average lending rates are standing at 31.8%", the finance minister lamented. He expressed more worry that the banks adhesively stuck to their guns in spite of the huge drop in the central bank's policy rate from 18.5% in February 2009 to 13.5% in July, adding that the argument of lending at higher rates to small-and medium-scale enterprises because of high risks, was unacceptable.

Mr Arthur, who is also the Chief Executive Officer of First Atlantic Merchant Bank, said the banks should be understood in that they needed to turn out profits to stay in business to perform their inalienable role of financial intermediation. He expressed worry that although the real sector of the economy was picking up, it was not as bold and strong as they had expected and that was not a good sign for the financial sector. The banks would therefore need a sustained stability and improvements in the economy to be able to adjust appropriately.

In year-on-year terms, the Bank of Ghana Composite Index of Economic Activity (CIEA) registered a growth of 10.5 per cent in 2010 compared to 9.6 per cent in 2009. Commercial Banks Credit to the private sector, Industrial activity, level of imports, construction sector activity, tourist arrivals, social security contribution, sales of key manufacturing establishments

and port and harbor activity are some of the sectors that contributed to the increase in the index relative to the pace observed a year ago. (Bank of Ghana Monetary Press Release, February 2011)

The Bank of Ghana (BOG), the Central Bank, faces partly contradictory monetary policy aims, namely containing inflation while fostering economic growth. As inflation ebbed recently, and with the central bank concerned over sluggish economic output, it has made numerous cuts to its discount rate, which fell from 18 per cent at the end of 2009 to 13.5 per cent by the end of 2010. (GNA, 2011) However, whether these cuts would translate into increased lending during the forecast period is unclear, especially as lending rates at the commercial banks have been slow to follow the BoG's lead so far, owing to structural constraints in the sector such as a poor legal infrastructure.

Lending rates may start to fall now that the Government is starting to clear its arrears with local contractors, allowing banks to recover bad debts, but this would take time to resolve itself. Against this, the BoG would need to manage building inflationary pressures and the extra liquidity stemming from the onset of oil exports, and policy tightening may be required.

#### **2.4: REASONS FOR HIGH LENDING RATES**

When interest rates are high there is typically concern that certain sectors of the economy bear a disproportionate share of the effects of high interest rates. Regardless of this fact a certain school of thought believe that interest rate must go high. Below are some of the reasons why.

### 2.4.1: The impact of inflation on interest rates

Since inflation reduces the purchasing power of money, inflation and the expectation that it will continue causes lenders to demand higher interest rates on loans. This is because lenders want to be compensated, not only for sacrificing the use of their money and assuming a risk in lending, but also for the expected decline in the purchasing power of their money during the life of the loan. In addition, there is a tendency for borrowers, also expecting the value of the money to decline before they repay the loan, to be willing to pay higher rates to borrow money. The willingness to pay higher rates to borrow is reinforced if the borrower uses the money to buy something that is apt to increase in value with the inflation (such as a house). Therefore, inflation and inflationary expectations can press interest rates upward. Because of the impact of inflation on interest rates, economists distinguish between the market interest rate and the real interest rate. Fisherian Hypothesis asserts that, if the expected real rate is constant and therefore 10.

Independent of expected inflation, each percentage point rise in the nominal rate of interest. This hypothesis is  $i = r + \beta \pi$  where  $\beta = 1$ . (Leisenring 1980)

$i$  – Denote the nominal interest rate

$r$  –denote the real interest rate

$\beta$  – Is a constant of 1?

$\pi$  - denote the inflation rate

### 2.4.2: Risks of investment

There is always a risk that the borrower will go bankrupt, abscond, die, or otherwise default on the loan. This means that a lender generally charges a risk premium to ensure that, across his

investments, he is compensated for those that fail. Franco Fiordelisi , David Marques-Ibanez And Phil Molyneux (2010)Efficiency And Risk In European Banking.

### **2.4.3: Taxes**

Bankruptcies in the financial sector are costly, not only for banks' equity and debt holders but often also for taxpayers. Because some of the gains from interest may be subject to taxes, the lender may insist on a higher rate to make up for this loss. (Fiordelisi, Marques-Ibanez and Molyneux, 2010).

### **2.5: THE INFLUENCE OF THE CENTRAL BANK ON THE LENDING RATE**

The acts and policies of the Central Bank have an important effect on the interest rate and the funds available to borrowers. While the Central bank does not have the power to set interest rates in general, it has control of one rate, the discount rate; and, changes in the discount rate can influence other market rates. The Central bank also has the power to change the reserve requirement to operating as commercial bank. Reserve requirements are the percentage of deposits member banks must keep on reserve. When, for example, reserve requirements are increased, banks are required to keep more reserves and therefore have less money available to lend out; by altering the availability of money and credit, interest rates may be affected. The central bank can also strongly influence market interest rates through its open market operations; there are two paths through which this influence works. First, open market operations have a direct impact on the market rate on the government securities, which will in turn impact on other market rates. Second, the central banks open market operations change the level of reserves available to the banking system, directly affecting the amount of money banks have to lend out,

and therefore the rate banks charge on loans. For example, an open market sale of securities by the central bank will tend to increase rates on Government securities and will reduce the amount of reserves in the banking system; with fewer reserves, banks have less money available to lend and there is a tendency to raise loan rates. The total effect of such a policy action is therefore a reduction in money and credit availability and upward pressure on market interest rates. (Leisenring 1980)

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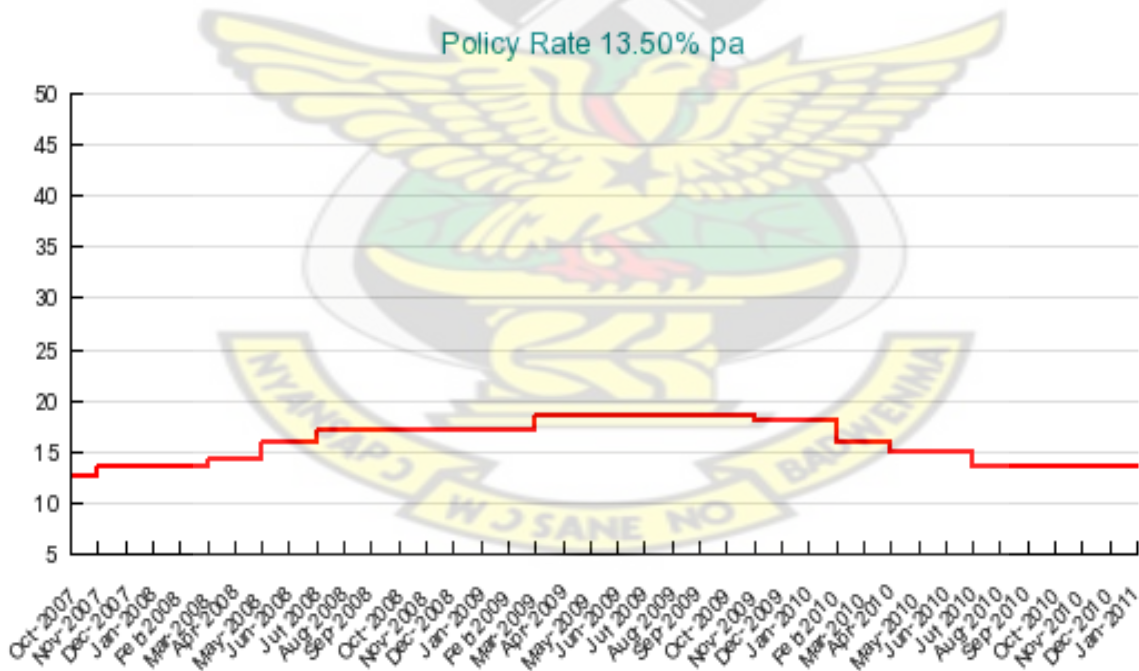
## **2.6: INTEREST RATES OF GHANA FROM OCTOBER 2007-JANUARY 2011**

The finance ministry and the central bank, have since the reduction of the prime rate to 13.5% been morally persuading commercials to reduce lending rates but we are still yet to see any appreciable drop in lending rates. Figure 2.1 shows the changes in the prime rate from the last quarter of 2007 to January 2011. The anomalies in the interest rate transmission in Ghana are that, on the one hand, the downward movements of market lending are very sticky. The prime rate has dropped from 18.5% to 13.5% within the last two years but average lending rate still hovers around 31% and still in the range of 24 – 35.0%. On the other hand, the commercial banks are quick to cut interests on deposits with them as the prime rate is cut. There were fixed deposits paying about 28% when the prime rate was 18.5% but those rates have now dropped to about 12% as the prime rate is cut to 13.5%. These anomalies, in my opinion, have rather made monetary policy rate cuts a punishment to Ghanaian households and businesses as they lose on interest earnings and still face high lending rates from banks. The commercial banks have been largely silent on the issue. From their perspectives, however, it is not automatic that they reduce lending rates as and when the prime rate is reduced.



They borrow from depositors at a cost and take into consideration the high administrative cost they face (banks staff are one of the best paid and risk premium, when setting their lending rates. While, the rates on deposits in saving accounts and interbank rates may fall directly as the result of a reduction in the prime rate, rates on some of the other instruments use to finance credit may not necessarily drop. The banks also face default risk which is rising in Ghana at the moment. According to the Bank of Ghana's own data, the ratio of nonperforming loans to gross loans is currently up to 18.7% from 7.7 % in December 2008. Adjimah( 2010). From the information in Figure2.6, I believe the interest rate charged by commercial banks should be between 15% - 25% and decrease and increase as and when the prime rate increases or decreases.

**Figure 2.6: Ghana's Policy Rate from October 2007 - January 2011**



SOURCE(Bank of Ghana)

## **2.7: THE IMPACT OF HIGH LENDING RATES ON BORROWERS, BANKS AND THE ECONOMY.**

It is commonly believed that when money and credit tightens and interest rates rise, certain groups of borrowers are more seriously affected than others. Small businesses, public utilities, State and local governments and consumers are all types of borrowers that are typically believed to be seriously affected. Also, all participants in the mortgage market and construction industry, including borrowers and lenders of mortgage credit, construction companies and workers, are frequently hit hard by scarce and expensive credit. There are several channels through which these groups may be forced to bear a disproportionate share of the adverse effects of high interest rates and tight credit.

### **2.7.1: The effect of high lending rates on the borrowers**

Cost of Borrowing; as interest rates rise, some groups of borrowers may simply not be able to afford to borrow money. Small businesses, consumers, public utilities, State and local governments and certain types of mortgage borrowers are believed to be highly sensitive and vulnerable to increases in the cost of credit. For small businesses, many of which operate with small profit margins, increases in the cost of borrowing money can cut so heavily into profits that they can no longer afford to borrow money. Since consumers typically borrow money to purchase durable goods such as a car or household appliance, increases in the cost of borrowing may force them to postpone or abandon plans to borrow and spend. This is especially likely to be the case during inflationary periods, when rising prices are already putting pressure on consumers' budgets. Interest costs are such a large proportion of monthly mortgage payments that interest rate increases can cause substantial increases in monthly payments. Therefore when

interest rates rise, many would-be home buyers are priced out of the market. State and local governments and public utilities are also frequently priced out of the market for borrowed money when interest rates are high; in addition, in some cases State and local laws put limits on the rates that governmental units and public utilities are allowed to pay to borrow money.

### **2.7.2: The effect of high lending rates on the bank**

When the interest rates are high it does not have an immediate impact on the stock market. Instead, the increasing rate has a single direct effect - it becomes more expensive for banks to borrow money from the Central Bank.

Disintermediation refers to the withdrawal of funds from financial intermediaries as more money is attracted into financial markets by high interest rates. This occurs whenever market rates rise above those legally payable on deposits, making market instruments, such as Treasury bills or commercial paper, more attractive to investors than deposits at financial institutions. Disintermediation reduces the amount of money available for all types of financial intermediaries to lend out, but in previous periods of tight credit and high interest rates, savings and loan associations and mutual savings banks have experienced serious withdrawals of funds. Since these institutions are heavy mortgage lenders, disintermediation, by draining money from these institutions, reduces the amount of money available for mortgages. (Leisenring 1980)

### **2.7.3: The effect of high lending rates on the economy**

When the prime rates in central banks are high it does not have an immediate impact on the stock market. Instead, the increasing prime rate has a single direct effect - it becomes more expensive for borrow activities in the economy. However, increases in the discount rate also cause a ripple

effect and factors that influence both individuals and business are affected. The first indirect effect of an increased prime rate is that banks increase the rates that they charge their customers to borrow money. Individuals are affected through increases to credit card and mortgage interest rates, especially if they carry a variable interest rate. This has the effect of decreasing the amount of money consumers can spend. Businesses in the country are also indirectly affected by an increase in the prime rate as a result of the actions of individual consumers. But businesses are affected in a more direct way as well. They, too, borrow money from banks to run and expand their operations. When the banks make borrowing more expensive, companies might not borrow as much and will pay a higher rate of interest on their loans. Less business spending can slow down the growth of a company, resulting in decreases in profit. (Leisenring 1980)

- **Stock Price Effects**

Clearly, changes in the prime rate affect the behavior of consumers and business, but the stock market is also affected. Remember that one method of valuing a company is to take the sum of all the expected future cash flows from that company discounted back to the present. To arrive at a stock's price, take the sum of the future discounted cash flow and divide it by the number of shares available. This price fluctuates as a result of the different expectations that people have about the company at different times. Because of those differences, they are willing to buy or sell shares at different prices .If a company is seen as cutting back on its growth spending or is making less profit - either through higher debt expenses or less revenue from consumers - then the estimated amount of future cash flows will drop. All else being equal, this will lower the price of the company's stock. If enough companies experience a decline in their stock prices, the whole market, or the indexes that many people equate with the market, will go down. (Leisenring 1980)

- **Investment Effects**

For many investors, a declining market or stock price is not a desirable outcome. Investors wish to see their invested money increase in value. Such gains come from stock price appreciation, the payment of dividends - or both. With a lowered expectation in the growth and future cash flows of the company, investors will not get as much growth from stock price appreciation, making stock ownership less desirable. (Leisenring 1980)

- **The General Population**

According to Leisenring (1980) the people mostly affected by high lending rates are the borrowers; this has the effect of decreasing the amount of money consumers can spend. After all, people still have to pay the bills, and when those bills become more expensive, households are left with less disposable income. This means that people will spend less discretionary money, which will affect businesses' top and bottom lines, that is, revenues and profits. There will be less capital to start a business and a greater percentage of the profits made by these businesses will go into paying interests on loans.

## **2.8: WAYS TO ADDRESS THE EFFECTS OF HIGH LENDING RATES ON BORROWERS, BANKS AND THE ECONOMY.**

Banks and policy makers can come up with ways to reduce high lending rates in the country. Some countries like Great Britain have done this and the long run economic benefits are seen. Below are some ways by which researchers suggest the problem of high interest rates should be addressed.

### **2.8.1: Reduction of the interest rate**

Some banks in some countries have reduced their interest rate or introduced new product into their banking system. Lowering interest rates can give the economy a short-run boost. Under normal conditions, most in a conventional macroeconomic model such as the IS-LM model, the interest rate channel is a primary monetary mechanism; economists think a cut in interest rates will only give a short term gain in economic activity that will soon be offset by inflation. The quick boost can influence elections. Most economists advocate independent central banks to limit the influence of politics on interest rates. (Bernanke (2007)).An example of such a product is the Interest Rate Reduction Refinancing Loan (IRRRL).

### **2.8.2: Usury laws**

According to Leisenring (1980), in some countries and states in the Unites States of America usury laws are used to encourage the allocation of credit away from certain types of borrowers. Usury laws put ceilings on the rates that lenders can legally charge on loans; usury ceilings are most frequently applied to mortgages and consumer loans. When market rates rise above the legal ceilings, there is a profit incentive for banks and other lenders to allocate scarce credit to other types of loans.

### **2.8.3: Credit rationing**

Credit rationing is the term applied to the procedures that banks follow to allocate credit among potential borrowers when the supply of money and credit is limited relative to the demand for it. To ration credit, banks may upgrade their standards for risk and credit-worthiness. They might also simply decide not to extend certain types of loans or choose to lend to certain preferred customers or types of customers. It is frequently claimed that credit rationing discriminates against consumers, small businesses, and State and local governments, while large, corporate customers receive a larger proportion of the smaller amount of available money. Even though it appears discriminatory, it prevents the banks from charging exorbitant lending rates. (Leisenring 1980)

**2.9: THE MONETARY POLICY TRANSMISSION MECHANISM EMPIRICS.** Amidu, (2005) in examining whether bank lending in Ghana was affected by monetary policy (here central bank's policy rate was used as a proxy) concluded that Ghanaian banks (commercial banks) lending behavior is affected significantly by the country's economic activities and money supply. The results also supported previous studies as the study showed that the central bank policy rate and inflation rate were negatively affected by commercial banks lending. However, the coefficient of the policy rate and inflation rate was statistically insignificant.

The study also revealed that bank size and liquidity influence banks' ability to extend credit when demanded. Bigger banks are in position to attract more investments in the form of deposit and this enhances their ability to extend credit. With regard to the liquidity, studies have shown that banks with more liquid assets extend credit to borrowers. However, Amidu failed to examine

the relationship between the central banks policy rate and commercial banks lending as well as other factors that significantly affect the lending behavior of the commercial banks.

Kashyap and Stein (2000) study provided empirical evidence that corroborated the existence of this channel for the US and they concluded that the impact is mostly driven through small banks with less liquid balance sheet. Ehrmann et al. (2003) confirm this when they report that loan supply of less liquid banks is more severely affected by monetary policy changes in several European countries.

Quite a number of papers have documented various degrees of lending rate stickiness (Moazzami, 1999; Cottarelli and Kourelis, 1994; De Bondt, 2005; Kwapil and Scharler, 2006). Other studies also concluded that interest rate pass-through variations may be found, among other things, in different adjustment costs, the demand elasticity of loans, implicit contracts between banks and their customers, switching costs and asymmetric information costs (see, among others, De Bondt, 2005; Kwapil and Scharler, 2006).

Put rather differently, the degree of lending rate stickiness depends on the extent to which commercial banks are able to fully insulate their supply of loans in response to changes in reserves; and borrowers are able to insulate their spending from alterations in the accessibility of bank loans (Oliner and Rudebusch, 1995, p. 3).



## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0: INTRODUCTION**

This chapter describes the methodology employed in conducting the study. The chapter consists of the research design, modeling for the study, sources of data and procedures for data analysis and presentation.

#### **3.1: SOURCES AND TYPE OF DATA**

Data used is basically secondary from the Bank of Ghana Records, internet, books and publications such as magazines, journals and periodicals. This is basically because the use of secondary data saves time considering the time frame that has been given to complete this research. This research will make use of both qualitative and quantitative secondary data.

Secondary data may be qualitative (descriptive) or quantitative (numerical). Qualitative data sources include newspapers, books, diaries, interview transcripts, etc., and quantitative sources typically include surveys and statistics, many of which are available from the public records office or national archives.

#### **3.2: INFERENCE STATISTICS**

Inferential statistics are used to draw conclusions about the reliability and generality of the findings. According to Leary (2004, p. 38), inferential statistics are used to assist in answering questions such “How likely is it that my findings are due to random extraneous factors rather

than to the variables of central interest in the study? How representative are the findings of the larger population from which the sample was taken?” In order to test the research hypotheses, the inferential tests used include the Pearson Product-Moment Correlation Coefficient, Multiple Regression Analysis, Analysis of Variance (ANOVA) and Quadratic Trend Analysis.

### **3.3: THE PEARSON PRODUCT-MOMENT CORRELATION COEFFICIENT**

The Pearson Product-Moment Correlation Coefficient is a statistic that indicates the degree to which two variables are related to one another. The sign of a correlation coefficient (+ or -) indicates the direction of the relationship between  $-1.00$  and  $+1.00$ . Variables may be positively or negatively correlated. A positive correlation indicates a direct, positive relationship between two variables. A negative correlation, on the other hand, indicates an inverse, negative relationship between two variables (Leary, 2004)

### **3.4. MULTIPLE REGRESSION ANALYSIS**

Multiple Regression Analysis is identified through three distinct types of multiple regression procedures, namely, standard, stepwise, and hierarchical multiple regression. The three types of analyses differ in the manner in which the predictor variables may be entered, if all at once, it is standard; if based on the strength of their ability to predict the criterion variable, it is stepwise; or if in an order predetermined by the researcher then it would be considered hierarchical (Leary, 2004). For the purpose of the study, neither of the above methods was used rather a model was generated using multiple regression analysis to ascertain the degree of responsiveness.

### **3.5: ANALYSIS OF VARIANCE (ANOVA)**

Analysis of Variance (ANOVA) is a statistical procedure used to analyze data from designs that involve more than two conditions. According to Leary (2004), ANOVA analyses the differences between all condition means in an experiment simultaneously. For the purposes of this study, ANOVA was used to discuss the significance of the model.

### 3.6: MODEL FOR THE STUDY

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It must be noted that researchers have adopted one model or the other with the view of obtaining an accurate specification of a model within the context of the environmental and economic peculiarities of an economic setting.

For the purpose of this study the ensuing model was adopted in line with regression analysis of Bank of Ghana Policy rate on commercial banks lending rate:

$$Lr = f(Pr, Ar, Ofr, Pmp, Gpi) \dots\dots\dots(1)$$

$$Lr = a + Pr + Ar - Ofr + Pmp + Gpi \dots\dots\dots(2)$$

Where;

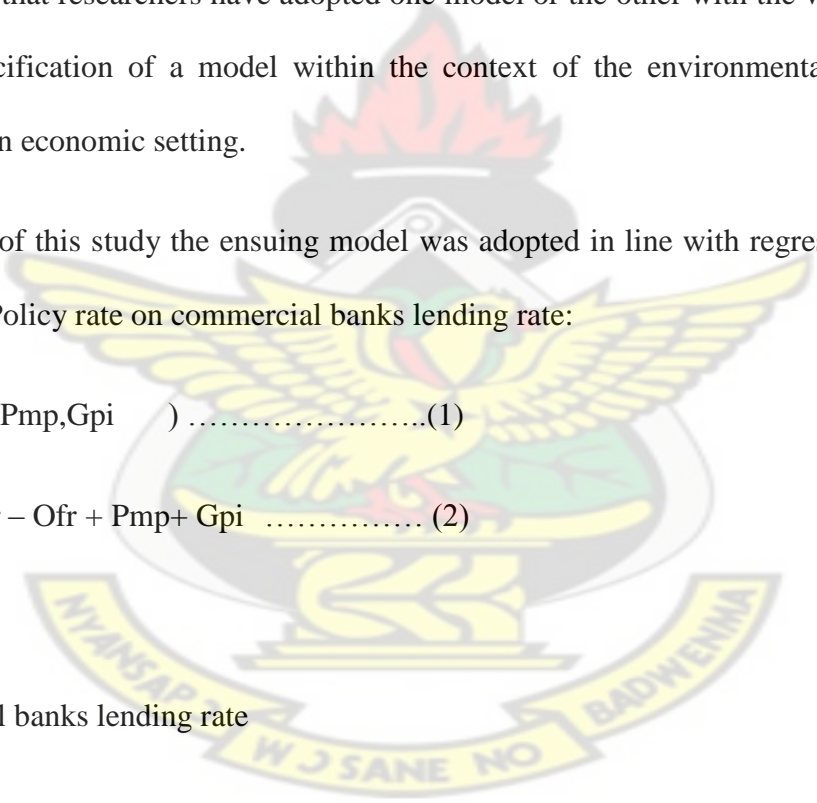
Lr = Commercial banks lending rate

f = function of the variables

a = constant

Pr = Bank of Ghana Policy Rate

Ar = Administrative Overheads/ Cost of deposit mobilization/ Risk insurance cost



Ofr = other sources of financing

Pmp = Profit mark-up

Gpi = Government policy on inflation

Model-1 depicts a simple assumption on the theoretical framework that commercial banks lending rate is given as the function of factors that affect the determination of commercial banks lending rate. Given that; Pr, Ar, Ofr, Pmp, Gpi are the independent factors determining Lr, then commercial banks lending rate is the function of these variables. Lr becomes the dependent variable whiles Bank of Ghana Policy rate, Administrative Overhead/ Cost of deposit mobilization/Risk insurance cost, other sources of finance, Profit mark-up, and Government policy on inflation are the independent variables.

Model-2 depicts the relationships that exist between independent variables and the dependent variable as well as the coefficients of the relationship.

In the model-2, Bank of Ghana policy rate has a positive sign which means that there is a positive relationship between the central bank's policy rate and the lending rate of the commercial banks. The positive relationship means that an increase in the central bank's policy rate will lead to an increase in the commercial banks lending and vice versa.

A positive relationship also existed between the Administrative overhead/cost of deposit mobilization/risk insurance cost and commercial banks lending rate. Meaning an upward or downward movement in Ar. would result in the commercial banks lending rate moving upward or downward in the same direction.

The negative sign for the other sources of finance showed its inverse relationship with the commercial banks lending rate. An increase in other sources of finance would lead to a decrease in lending rate and a decrease in other source of finance would lead to an increase in commercial banks lending rate.

Profit mark-up and Government policy on inflation both had positive relationship with commercial banks lending rate. A change in Profit mark-up and Government policy on inflation therefore would affect commercial banks lending rate in the same direction.

### **3.7: PROCEDURES FOR DATA ANALYSES AND PRESENTATION**

The statistical programmes used for the analyses and presentation of data in this research are the Statistical Package for the Social Sciences (SPSS) version 16, Minitab 15 and Microsoft Excel 2007. The presentation proceeds with an analysis of the descriptive statistics on the variables under consideration.

To facilitate ease in conducting the empirical analyses, the results of the descriptive analyses are presented first, followed by the inferential statistical analysis.

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## CHAPTER FOUR

### DATA ANALYSIS, FINDINGS AND DISCUSSION OF RESULTS

#### 4.0: INTRODUCTION

This chapter analyses as well as discusses the results of the study. The presentation proceeds with an analysis of the descriptive statistics on the variables under consideration. To facilitate ease in conducting the empirical analyses, the results of the descriptive analyses are presented first, followed by the inferential statistical analysis.

Descriptive statistics in the form of arithmetic means and standard deviations for the variables; Lending Rate, Policy Rate, Overhead Cost, Other Sources of Finance, Profit Mark-Up and the Government Policy on Inflation from 2009 to 2011. The means and standard deviations of the variables are presented in Table 4.1 below.

The average Lending rate for the period of study was 24.35. Also, the average Policy rate, Overhead Cost, Other Sources Finance, Profit Mark-Up and Government Policy on Inflation for the same period were 15.25, 36.67, 41.27, 30.13 and 12.89 respectively.

**Table 4.1: Descriptive Statistics of the Variables**

VARIABLES	MEAN	STANDARD DEVIATION	MINIMUM	MAXIMUM
LENDING RATE	24.35	4.23383	18.00	29.75
POLICY RATE	15.25	2.50907	12.50	18.50
OVERHEARD COST	38.67	0.80716	37.50	40.00
OTHER SOURCES OF FINANCE	41.27	0.68799	40.00	42.00
PROFIT MARK-UP	30.13	4.27001	25.00	35.50
GOVT POLICY ON INFLATION	12.89	4.92894	8.40	20.40

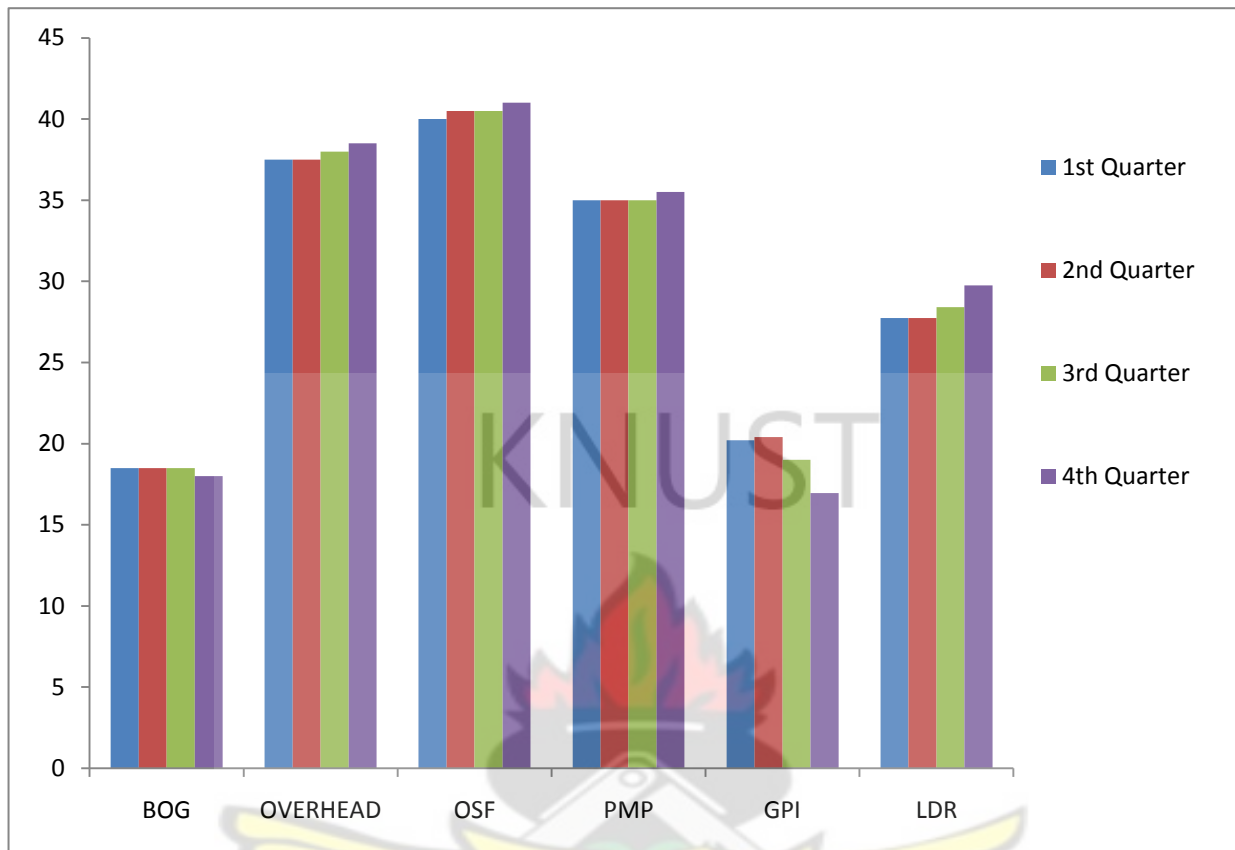
*Source: Field Data for 2009, 2010 and 2011*

Clearly, the standard deviation for the overhead cost and other sources of finance are centered around their respective means implying that, change in the values of the years in question are minimal. Contrary, the standard deviation for the rest of the variables (i.e. Lending rate, Policy rate, Profit Mark-Up and Government Policy on Inflation) were a little distant from their means, hence, a change in the various values significantly affected the proceeding year's value.

The minimum Lending rate, Policy rate, Over head Cost, Other Sources of Finance, Profit Mark-Up and Government Policy on Inflation for the years 2009, 2010 and 2011 are 18.00, 12.50, 37.50, 40.00, 25.00 and 8.40 respectively. Also, the maximum Lending rate, Policy rate, Over head Cost, Other Sources Finance, Profit Mark- Up and Government Policy on Inflation for the years 2009, 2010 and 2011 are 29.75, 18.50, 40.00, 42.00, 35.50 and 20.40 respectively.

**Figure 4.1: Quarterly distribution of all the variables for 2009**



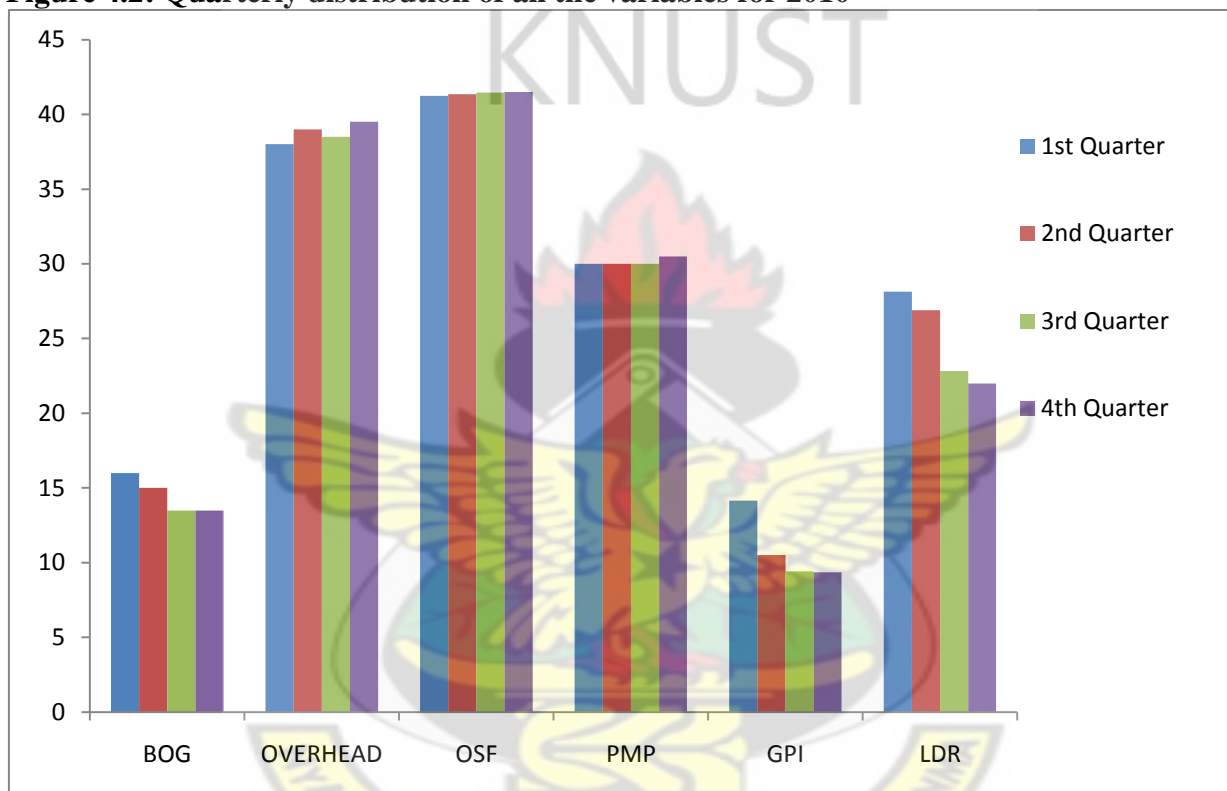


Source: Field Data for 2009

From Figure 4.1 above, Other Sources of Finance had the highest value for the year 2009. This may be as a result of the component of the variable while the values for the second and third quarters remained unchanged. The Overhead Cost was the second highest value for the year in question with the first and second quarters remaining unchanged. Profit Mark-Up was the third highest value for 2009 with the first three quarters remaining unchanged at 35. The Bank of Ghana Policy Rate and the Government Policy on inflation seem not to vary too much from each other for quarter one to quarter four, 2009. This could be that both policies influenced each other during policy decisions since they both have the same source; the Government.

The Lending rate was identified to be higher than both the Government Policy on Inflation and the Bank of Ghana's Policy rate. This could mean that commercial banks, of which Barclays Bank is of no exception considers' very importantly, the Bank of Ghana's Policy Rate and Government Policy on Inflation before deciding on their Lending rate.

**Figure 4.2: Quarterly distribution of all the variables for 2010**

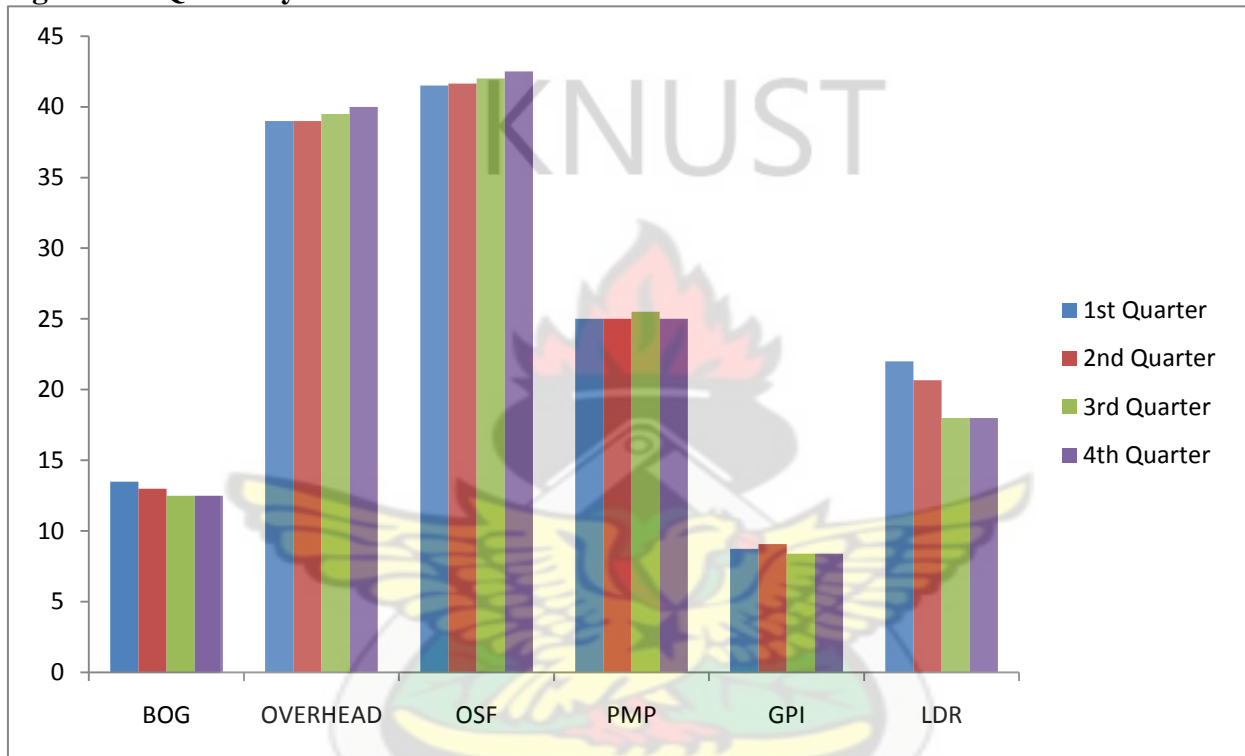


Source: Field Data for 2010

The Figure 4.2 shows that Other Source of Finance had the highest value for the year 2010 which is not different from the preceding year 2009. The Overhead Cost is the second highest value for the year in 2010 with a minimum change in the value of the quarters for the year 2010. Profit Mark-Up is the third highest value for 2010 with the first three quarters remaining unchanged at 30. This was also the same for the year 2009. The Bank of Ghana Policy Rate and the

Government Policy on inflation are the minimum variables with the Government Policy on Inflation being the smallest. The Lending rate clearly is higher than both the Government Policy on Inflation and the Bank of Ghana Policy rate.

**Figure 4.3: Quarterly distribution of all the variables for 2011**

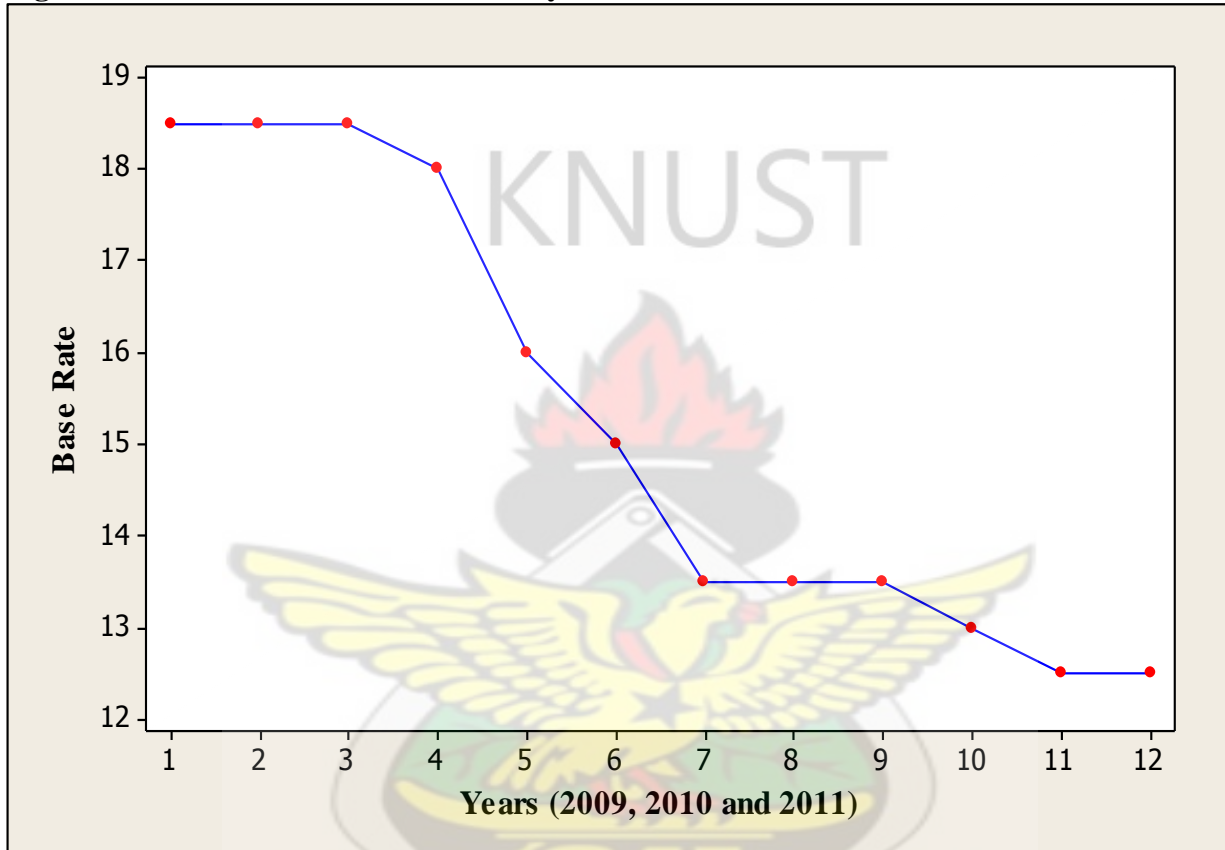


*Source: Field Data for 2011*

The Figure 4.3 shows that Other Sources of Finance had the highest value for the year 2011 which is not different from the preceding year 2009 and 2010. The Overhead Cost is the second highest value for the year in 2011 with a minimum change in the value of the first and second quarters for the year 2011. Profit Mark-Up is the third highest value for 2011 with the first and second quarters remaining unchanged. This was also the same for the year 2009 and 2010. The Bank of Ghana Policy Rate and the Government Policy on inflation are the minimum variables

with the Government Policy on Inflation being the smallest. The Lending rate clearly is higher than both the Government Policy on Inflation and the Bank of Ghana Policy rate for the year 2011 just as the years 2009 and 2010.

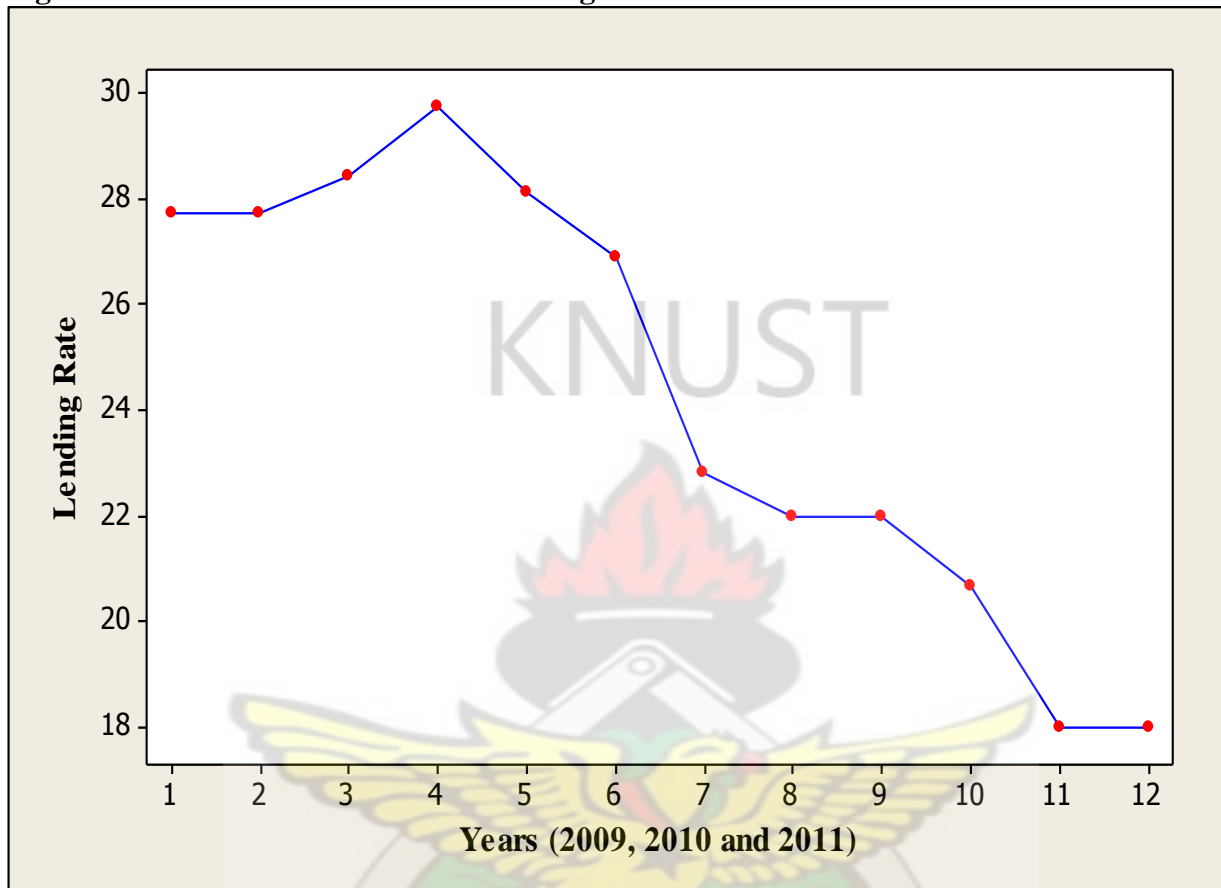
**Figure 4.4: Time Series Plot of the Policy Rate**



*Source: Field Data(2009-2011)*

It can be seen from Figure 4.4 above that the data exhibited a downward trend of the base rate over the time period. The first three quarters of 2009 was the same until the base rate started exhibiting a downward trend gradually to the fourth quarter. Surprisingly, the downward trend of the policy rate continued but at a faster rate for the year 2010. This could be explained by the world's economic downturn during the year 2010. The downward trend continued at a gradual pace during the later part of the year 2010 through to the year 2011.

**Figure 4.5: Time Series Plot of the Lending Rate**



Source: Field Data(2009-2011)

Contrary to Figure 4.4, it can be seen that Figure 4.5 above begun with a gradual upward trend throughout 2009. The year 2010 begun with a downward trend at a faster rate up to the third quarter of the year and continued with the downward trend but this time a slow rate. This trend continued to the third quarter of the year 2011 where the trend remained the same to the end of the year.

#### **4.1: INFERENCE STATISTICS**

In order to test the study's hypotheses, the Pearson Product Moment Correlation was calculated as well as p-value. Based on the results obtained from the study, conclusions were drawn with respect to each hypothesis tested.

#### **4.1.1: CORRELATION**

The Pearson's Product Moment Correlation ( $r$ ) and the p-value as shown in the Minitab output: (see Appendix.2) were computed for the purpose of testing the study's hypothesis.

The correlation between the Bank of Ghana Policy Rate and the Lending Rate was given as follows ( $r = 0.911$ ,  $p - \text{value} = 0.00$ ), implying that there was a very strong positive correlation between Bank of Ghana Policy Rate and Lending Rate of commercial banks. This means that as Bank of Ghana Policy Rate increased, the commercial banks lending rate also increases and as the Bank of Ghana Policy Rate decreased, commercial banks Lending Rate also decreased. At the given significant level of 5% and  $p - \text{value}$  of 0.00 generated after the computation was using the Minitab, it be can concluded that there was a significant evidence supporting the null hypothesis that the correlation between BOG and LDR was significant since the  $p - \text{value}$  is less than the alpha ( $\alpha$ ). Therefore the study accepts the null hypothesis and rejects the hypothesis that the correlation between BOG and LDR is not significant.

Next, the correlation between Commercial Banks Lending Rate and Overhead Cost was ( $r = -0.864$ ,  $p - \text{value} = 0.00$ ), implying that there was a strong negative correlation. This means that as Commercial Bank Lending Rate increased, Overhead Cost decreased and vice versa. At the given significant level of 5% and  $p - \text{value}$  of 0.00, it was evident that the negative correlation

between the Lending Rate and the Overhead Cost was true since  $p$  – value is less than the alphas ( $\alpha$ ). Therefore the study reject the hypothesis of a positive correction between lending rate and overheard cost and accept the null hypothesis.

The correlation between the Commercial Banks Lending Rate and the Other Sources of Finance was ( $r = - 0.910$ ,  $p$  – value = 0.00), implying that there was a strong negative correlation between Commercial Banks Lending Rate and the Other Sources of Finance. At the given significant level of 5% and  $p$  – value of 0.00, it was evident that the negative correlation between the Lending Rate and the Other Sources of Finance does exist hence the null hypothesis was true since the  $p$  – value was less than alpha ( $\alpha$ ). Consequently, the study accepts the null hypothesis and rejects the hypothesis that there is no negative correlation between commercial banks lending rate and other sources of finance.

The correlation between the Commercial bank Lending Rate and the Profit Mark-Up was ( $r = 0.926$ ,  $p$  – value = 0.00). This means that there was a strong positive relationship between Commercial Banks Lending Rate and the Profit Mark-Up. Since the  $p$  – value was less than alpha ( $\alpha$ ), we conclude that the association between the Lending Rate (LDR) and the Profit Mark-Up was significant. Therefore the study accepts the null hypothesis that there is correlation between lending rate and profit mark-up and the hypothesis that there is no correlation between LDR and Pmp.

The correlation between the LDR and Inflation was ( $r = 0.981$ ,  $p$  – value = 0.00), meaning that there was a strong positive correlation between the LDR and Inflation. Also, there was

significant positive association existing between the Commercial Bank Lending Rate and the Government Policy on Inflation since the p – value is less than the alpha ( $\alpha$ ).

#### 4.1.2: MULTIPLE REGRESSION ANALYSIS

On the basis of the results obtained indicating the relationship among all the variables used in the study in the proceeding sub-section, multiple regression analysis was used to ascertain the extent to which they explain the variance. The regression model was estimated by;

$$\text{LDR} = f(\text{BOG, OVERHEAD, OSF, PMP, and GPI}) \dots\dots\dots (1)$$

Hence, the result of the study was estimated to yield;

$$\text{LDR} = 12.2 + 4.27\text{BOG} + 2.64\text{OVERHEAD} - 1.61\text{OSF} + 0.166\text{PMP} + 1.72\text{GPI} \dots(2)$$

Given the above estimated model, the intercept was 12.2. This was the average Lending Rate of commercial banks if all the independent variables assumed zero.

The coefficient 4.27 explains the relationship between the Lending rate and the Policy Rate in the model. This means that, a one percent increase in the Policy Rate would result in a 4.27% increase in the Lending Rate of commercial banks. On the assumption that the Bank of Ghana policy rate increases by 1%, the commercial banks lending rate would also increase by 4.27% when all independent variables are constant. Theoretically, there is a positive relationship between Bank of Ghana Policy Rate and the LDR.



Furthermore, an addition to Overhead Cost of commercial banks would cause a 2.64% increase in the Lending Rate. Given a 1% increase in the Overhead cost of commercial banks would lead to lending rate increase by 2.64%. Similarly, there is a positive relationship between the LDR and the Overhead Cost as displayed in the model. This is as a result of commercial banks passing all other cost incurred in risk insurance and deposit mobilization as a percentage on the lending cost to borrowers. The higher the cost, the higher the lending rate and vice versa.

The coefficient of 1.61% explains that given an addition to the Other Sources of Finance, the Lending Rate would increase by 1.61%. An increment of 1% in the Lending rate means an increment of 1.62% in the OFS, hence a positive relationship between the LDR and the OSF exist.

The relationship between the Lending Rate and the Profit Mark-Up was explained by 0.166. It can be interpreted that, for an addition to PMP, the Lending rate would increase by 0.166%. There exist a positive relationship between the LDR and the PMP.

Government Policy on Inflation had a negative relationship with LDR. Consequently 1.72% increase in inflation would lead to a decrease in Lending rate of commercial banks by 1.72%. This also confirms that there is a negative relationship between the LDR and the GPI.

$$S = 0.802328 \quad R\text{-Sq} = 98.0\% \quad R\text{-Sq}(\text{adj}) = 96.4\%$$

**Table 4.2 Analysis of Variance**

Source	DF	SS	MS	F	P
--------	----	----	----	---	---

Regression	5	193.316	38.663	60.06	0.000
Residual Error	6	3.862	0.644		
Total	11	197.179			

**Table 4.3 Analysis of Variance**

Source	DF	Seq SS
BOG	1	163.679
OVERHEAD	1	0.660
OSF	1	0.344
PMP	1	1.994
GPI	1	26.639

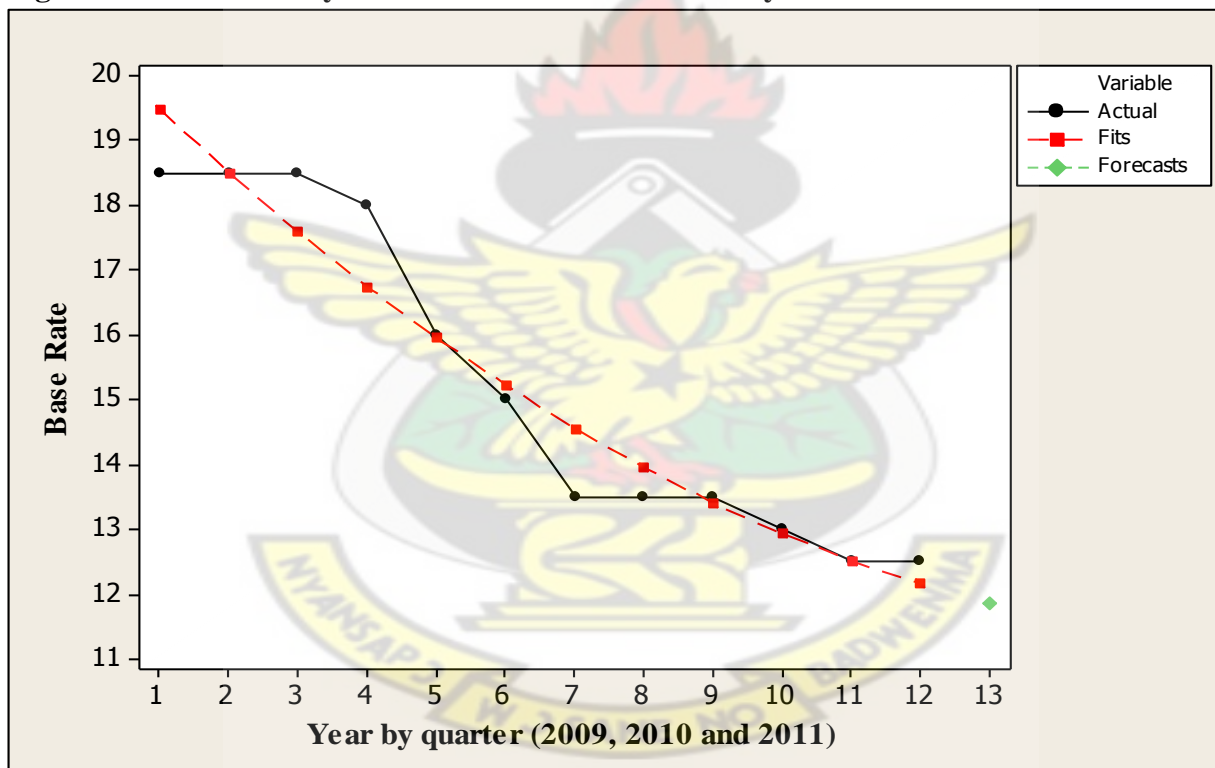
The p-value after the computation of the Analysis of Variance was 0.00, at the alpha ( $\alpha$ ) of 5%, it can be concluded that the model was significant since the p-value is less than alpha. The R-square also confirms this conclusion since it indicated that 98% of the variations are explained in the model and with only 2% unexplained variations.

#### **4.1.3: TREND ANALYSIS FOR THE BANK OF GHANA POLICY RATE**

Figure 4.6 gives a quadratic trend analysis for the Bank of Ghana Policy Rate from the first quarter of 2009 to the fourth quarter of 2011. It as well showed the forecast for the first quarter of 2012.

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**Figure 4.6: Trend Analysis for the Bank of Ghana Policy Rate**



Source: Field Data(2009-2011)

The resultant equation obtained after estimating the parameters  $\beta_0$ ,  $\beta_1$  and  $\beta_2$  into the quadratic equation yields the following results;

$$\hat{y} = 20.500 - 1.064t + 0.0307t^2$$

Based on this equation, MINITAB gives an estimated  $\hat{y}$  value of 11.864 which is the estimated Policy Rate for the first quarter of 2012 with a Mean Absolute Percentage Error of 2.85296.

#### 4.1.4: TREND ANALYSIS FOR THE COMMERCIAL BANK LENDING RATE

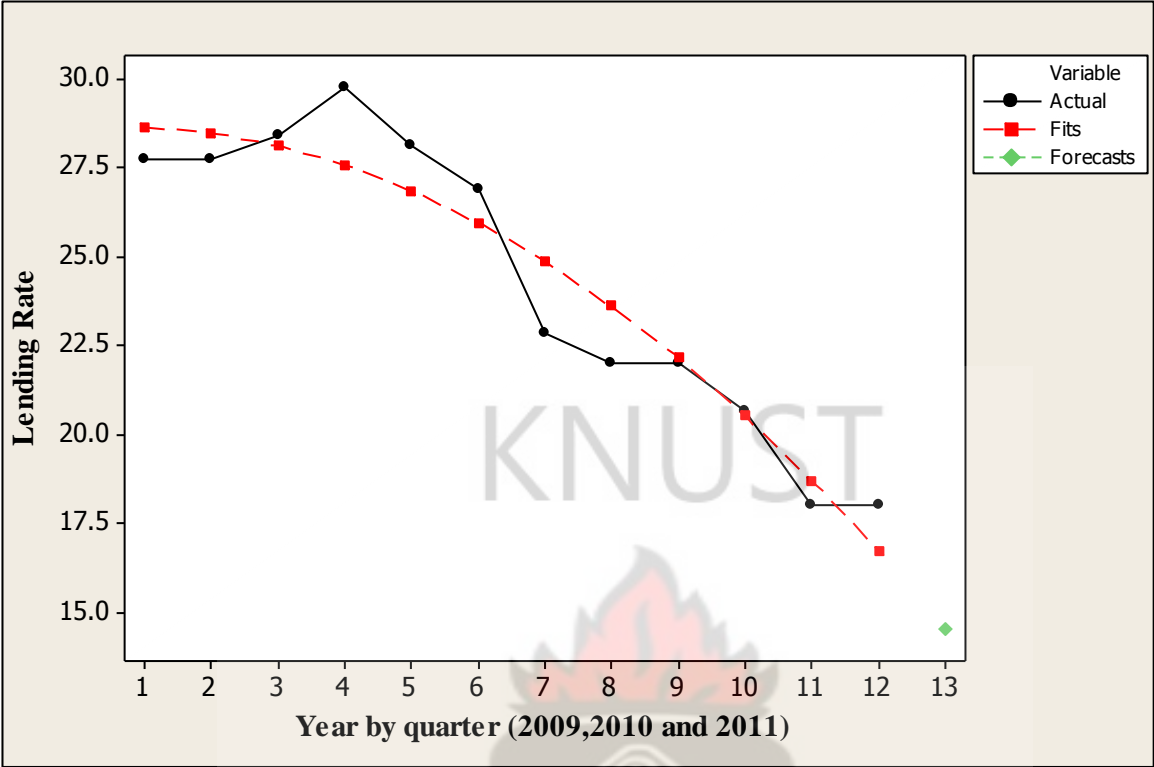
Figure 4.7 gives a quadratic trend analysis for the Commercial Bank Lending Rate from the first quarter of 2009 to the fourth quarter of 2011. It as well shows the forecast for the first quarter of 2012.

The resultant equation obtained after estimating the parameters  $\beta_0$ ,  $\beta_1$  and  $\beta_2$  into the quadratic equation yields the following results;

$$\hat{y} = 28.64 + 0.099t - 0.0912t^2$$

Based on this equation, an estimated  $\hat{y}$  value of 14.5291 is the estimated Lending Rate for the first quarter of 2012 with a Mean Absolute Percentage Error of 4.24743.

**Figure 4.7: Trend Analysis for the Commercial Bank Lending Rate**



Source: Field data (2009-2011)



## **CHAPTER FIVE**

### **SUMMARY, RECOMMENDATIONS AND CONCLUSION**

#### **5.0: INTRODUCTION**

This chapter summarizes the findings of the study from chapter four; offer recommendations based on the findings and give a conclusion for the study.

#### **5.1: SUMMARY**

The main purpose of the study was to find the relationship between the Bank of Ghana Policy Rate and the Commercial Banks Lending Rate and also find out the degree of responsiveness in the lending rate with respect to a change in the other variables as well as to predict the lending rate and the policy rate for the first quarter of 2012. The problem statement of the study was to find out whether or not the base rate had adversely affected the commercial banks lending rate of Barclays Bank Ghana. This motivated the researcher to conduct the study.

For this study to be free from biasness, the researcher considered all the factors (Lending Rate, Base Rate, Government Overhead Cost, and Government Policy on Inflation, Other Sources of Finance and Profit Mark -Up) from 2009 to 2011 by each quarter.

The preliminary findings in chapter four depicted that Lending rate clearly was higher than both the Government Policy on Inflation and the Bank of Ghana Policy rate for the years 2009, 2010

and 2011 in terms of the percentage fixed at that point in time. This could mean that Commercial Banks, of which Barclays Bank was of no exception considered very importantly the Bank of Ghana Policy Rate and Government Policy on Inflation before deciding on their Lending rate.

It was seen from Figure 4.4 based that Lending Rate exhibited a downward trend from the third quarter of 2009 through to the last quarter of 2011. The first three quarters of 2009 was the same until the trend started exhibiting a downward trend gradually to the fourth quarter. Surprisingly, the downward trend continued but at a faster rate for 2010. This could be explained by the world's economic downturn during the year 2010. The downward trend continued at a gradual pace during the later part of the year 2010 through to the year 2011. The continued downward trend in the lending rate could mean that Barclays Bank was encouraging more customers to borrow.

The policy rate begun with a gradual upward trend throughout 2009. On the contrary, the year 2010 begun with a downward trend at a faster rate up to the third quarter of the year and then continued with the downward trend but this time at a slower rate. This trend continued to the third quarter of the year 2011 where the trend remained the same to the end of the year.

There was evidence that there existed a positive relationship between the Lending Rate and Government policy on Inflation as well as Profit Mark-Up. Surprisingly, there was a negative correlation between the bank's overhead cost as well as the other sources of finance which was contrary to the general assertion that there was a positive relation between LDR and these two variables.

Nevertheless, assuming that the Lending rate increases by 1%, the Bank of Ghana Base Rate would also increase by 4.27% when all independent variables are constant.

On the same assumption that given all the independent variables remaining constant; the Overhead Cost would cause a 2.64% decrease in the Lending Rate given an increment in the Lending Rate by 1%, when all the independent variables are constant.

The Lending Rate would increase by 1.61% if all independent variables are constant. An increment of 1% in the Lending rate means an increment of 1.62% in the OFS.

The relationship between the Lending Rate and the Profit Mark -Up is explained by 0.166. It can be interpreted that, for an addition to PMP, the Lending rate would increase by 0.166% given that all the independent variables are constant.

The last variable in the model was Government Policy on Inflation described by -1.72. This means that for an addition to GPI, the Lending rate would decrease by 1.72%.

## **5.2: RECOMMENDATIONS**

Based on the findings of the study it was evidenced that both Lending Rate and Policy Rate were likely to decline further in 2012. Thus, Barclays Bank must find other innovative ways of increasing their profit through fee incomes and commissions since incomes from interest rate will be declining.



Next, the bank could also increase profit by booking a larger volume of loans than they have done previously in order to make up for the short fall of the interest income.

Due to the competitive nature of the banking industry in Ghana, Barclays Bank must employ sales persons to look for customers to borrow while exploring other profit making ventures.

### **5.3: CONCLUSION**

There was an evidence of a very strong positive relationship between the Bank of Ghana Policy Rate and the Lending Rate. This means that as the Bank of Ghana Policy Rate increases, the Commercial Bank Rate also increase and as the Bank of Ghana Policy Rate decreases the Commercial Bank Lending Rate also decreases.

It was identified that the equation with all the five factors; Policy Rate, Overhead Cost, Other Sources of Finance, Profit Mark-Up and the Policy on Inflation was the most accurate model because the standard error was smaller at 0.802328 which is closer to zero.

### **REFERENCES**

1. Abor, J., (2004), 'Internationalisation and Financing Options of Ghanaian SMEs', ACTA Commercii, Volume 4, 60-72.
2. Amidu, M. and Hinson, R., (2006), 'Credit Risk, Capital Structure and Lending Decisions of Banks in Ghana', Bank and Bank Systems, Forth Coming.

3. Berger, A.N., and Udell, G.F., (1992), "Some Evidence on the Empirical Significance of Credit Rationing", *Journal of Political Economy*, October, pp. 1047-76.
4. Bernanke, B.S. and Blinder, A.S., (1988), "Credit, Money, and Aggregate Demand", *American Economic Review*, May, pp. 435-39.
5. Bernanke, B.S. and Blinder, A.S., (1992), "The Federal Funds Rate and the Channels of Monetary Transmission", *American Economic Review*, September, pp. 901-21.
6. Brissimis, S.N., Kamberoglou, N.C., and Simigiannis, G.T., (2003), Is there a bank lending channel of monetary policy in Greece? Evidence from bank level data. In Angeloni, I., Kashyap, A., and Mojon, B., editors, *Monetary Transmission in the Euro Area: A Study by the Eurosystem Monetary Transmission Network*, pages 309-322. Cambridge University Press, Cambridge.
7. Cukierman, A. and Hercowitz, Z., (1989), 'Oligopolistic Financial Intermediation, Inflation and the Interest Rate Spread', Foerder Institute for Economic Research, Tel-Aviv University, Working Paper n. 17-89.
8. De Gregorio, J. and Sturzenegger, F., (1997), 'Financial Markets and Inflation Under Imperfect Information'. *Journal of Development Economics*, 54(1): 149-168.
9. Diamond, D., (1984), Financial Intermediation and Delegated Monitoring, *Review of Economic Studies* 51, 393-414.
10. Ehrmann, M., Gambacorta, L., Martínez-Pagés, J., Sevestre, P., and Worms, A., (2003), Financial systems and the role of bank in monetary transmission in the Euro area. In Angeloni, I., Kashyap, A., & Mojon, B., editors, *Monetary Transmission in the Euro Area: A Study by the Eurosystem Monetary Transmission Network*, pages 235-269. Cambridge University Press, Cambridge.

- 11.** Fama, E.F., (1985), What's Different About Banks?, *Journal of Monetary Economics* 15, 29-39.
- 12.** Farinha, L. and Robalo Marques, C., (2003), The bank lending channel of monetary policy: identification and estimation using Portuguese micro bank data. In Angeloni, I., Kashyap, A., & Mojon, B., editors, *Monetary Transmission in the Euro Area: A Study by the Eurosystem Monetary Transmission Network*, pages 359-371. Cambridge University Press, Cambridge.
- 13.** Gambacorta, L., (2003), The Italian banking system and monetary policy transmission: Evidence from bank-level data. In Angeloni, I., Kashyap, A., & Mojon, B., editors, *Monetary Transmission in the Euro Area: A Study by the Eurosystem Monetary Transmission Network*, pages 323–334. Cambridge University Press, Cambridge.
- 14.** Gertler, M., and Gilchrist, S., (1993), “The Role of Credit Market Imperfections in the Monetary Transmission Mechanism: Arguments and Evidence”, *Scandinavian Journal of Economics*, Vol. 95, no. 1, pp. 43-64.
- 15.** Gertler, M., and Gilchrist, S., (1994), “Monetary Policy, Business Cycles, and the Behaviour of Small Manufacturing Firms”, *Quarterly Journal of Economics*, May, pp. 309-40.
- 16.** Hinson, R., (2004), ‘The Importance of Service of Quality in Ghana’s Banking Sector’, *The Marketing Challenge*, Vol. 7, Issue 3, pp. 16-18.
- 17.** Huybens, E. and Smith, B.D., (1999), ‘Inflation, financial markets and long-run real Activity’, *Journal of Monetary Economics*, 43(2): 283-315.
- 18.** Kashyap, A.K. and Stein, J.C., (2000), What do a million observations on banks say about the transmission of monetary policy? *American Economic Review*, 90(3): 407-428.