EVALUATION OF CREDIT RISK MANAGEMENT PRACTICES IN GHANA COMMERCIAL BANK LIMITED.

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COMMONWEALTH EXECUTIVE MASTERS IN BUSINESS ADMINISTRATION

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DECLARATION

I hereby declare that this submission is my own work towards the Commonwealth Executive Masters of Business Administration (CEMBA) 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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Supervisor          Signature              Date

PROF. I.K. DONTWI .........................                      ............

Dean                           Signature              Date
DEDICATION

This research work is dedicated to my father, Mr. Eric J.K. Tetteh for his encouragement and support throughout the study period. You have always been highly important to me and I love you very much.
ACKNOWLEDGEMENT

In coming out with this piece of work, I had the benefit of a super natural grace and also the input from many talented people.

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ABSTRACT

The study evaluated the credit risk management strategies of Ghana Commercial Bank Ltd for the period 2000-2010. The research was an attempt to assess the extent to which the implementation of various credit risk management strategies by the bank has reduced the amount of non-performing loans. In order to answer the research objectives, the case study approach was employed where face-to face interview was conducted to collate the views of a senior credit officer at the Ghana Commercial bank Ltd on credit risk management strategies. Besides, information on non-performing loans was obtained from the books of accounts while the researcher also relied on data from GCB annual reports and credit policy documents for analysis. The results from the study showed that Ghana commercial bank has a clear, written guideline on credit risk management with the board of directors having an oversight responsibility for implementation. GCB realigns the amount of credit within various sectors grouped into a credit portfolio depending on environmental factors such as political regime, macroeconomic strategy of political regimes, new and existing regulations and legislation, social concerns of operating markets and technological developments within the banking industry in Ghana. The study recommends that Ghana Commercial Bank Ltd should work in collaboration with credit reference bureaux in the country to thoroughly investigate the past credit records of loan applicants so as to reduce the high rate of default of 19% as indicated in 2009.
CHAPTER ONE

INTRODUCTION

2.0 Background of the study

Banks and their customers have different perceptions of bank credit or lending. To most bankers, credit is not a capital-market activity, yet to many corporate customers’ particularly small and medium-sized companies, bank loans are their most important source of capital. The demand for medium-term or long-term lending comes mainly from commercial and industrial companies and from private individuals. However, amongst all the services provided by banks, credit creation is the main income generating activity for the banks. But this activity involves extremely high risks to both the lender (financial institution) and the borrower (client). The risk of a trading partner not fulfilling his or her obligation as per the contract can greatly hinder the smooth functioning of a bank’s operation. On the other hand, a bank with high credit risk faces potential insolvency and this does not give depositors confidence to place deposits with it.

Some financial institutions have collapsed or experienced financial problems due to inefficient credit risk management systems typified by high levels of insider loans, speculative lending, and high concentration of credit in certain sectors among other issues. Credit risk management practices and poor credit quality continue to be a dominant cause of bank failures and banking crises worldwide. Again, Financial Institutions have faced difficulties over the years for a multitude of reasons, the major
cause of serious banking problems continues to be directly related to lax credit standards for borrowers and counterparties, poor portfolio risk management, or lack of attention to changes in economic or other circumstances that can lead to a deterioration in the credit standing of a bank’s counterparties (Gil Diaz, 1994).

Following the removal of the 35% secondary reserves, the increase in the capital or equity of Ghanaian Banks, and the proliferation of Non-Bank Financial Institutions (44 in 2010), provision of credit facilities has increased significantly in the Ghanaian economy. In addition, intense competition among the banks to increase their market share on the credit market has deepened financial intermediation in the economy. The stock market has also seen more firms seeking equity relative to debt in managing their capital structure. This means banks and non-banks are gearing up to further reconstruction of the lending market.

However, one critical issue that has proved rather challenging for the Ghanaian banking industry and the broader economy in 2010 has been high bank lending rates and its effects on access to credit. Traditionally a low inflation and low interest rate regime are expected to ease macro-economic and credit conditions and stimulate economic growth. Contrary to this expectation, the response of lending rates within the banking industry to the liberal monetary policies of the Bank of Ghana has been sluggish (Amissah-Authur, 2010). The Annual Percentage Rates (APRs) which reveal actual lending rate in the financial sector indicates that the average base rate charged on borrowing by enterprises ranged between 27.5 per cent and 38 per cent at the end of August, 2010, which is
considered high and have instigated tight credit conditions in the economy for most part of 2010. Some of the underpinning factors that banks claim to have contributed to this situation include high Non Performing Loan (NPL) ratios and high loan loss provisioning. Indeed the quality of banks’ aggregated loan book remains a source of financial sector vulnerability. High levels of Non Performing Assets in the financial statements of banks have the potential to lower profitability and erode the capital base. Indicators of asset quality measured by the Non Performing Loans (NPL) ratios hit a peak of 20 per cent in February 2010, declined to 16.5 per cent in September and 16.9 per cent by the end of October 2010 (Amissah-Aurthur, 2010). For this reason efficient risk management is absolutely required. Carey (2001) indicates that risk management is more important in the financial sector than in other parts of the economy. In the case of banks, the issue of credit risk is even of a greater concern because of the higher levels of perceived risk resulting from the behaviour of clients and the type of business activities they finance. It is thus the purpose of this study to evaluate the credit risk management practices of Ghanaian banks using the Ghana commercial bank Limited as a case study.

1.1 Statement of the Problem

Despite the creation of a Risk Management Division at Ghana Commercial Bank, which is responsible for managing the bank’s risks including credit risk, available records show a rise in the value of non-performing loans of the bank. For instance, GCB recorded non-performing loans amounting to GH¢ 45,274,275, GH¢ 11,285,568, GH¢ 22,519,906., GH¢ 21,742,378 and GH¢ 240,448,178 for the financial years 2005, 2006, 2007, 2008
and 2009 respectively (GCB financial report, 2009). In relation to lending activities, the GCB’s ratio of non-performing loans to total loans rose to 19 percent in 2009 from just 2.0 percent in 2008 (GCB financial report, 2009). This is a very disturbing phenomenon because if the high level of non-performing assets in the bank’s portfolio is not brought under control, it may erode the capital base of the bank and reduce its profitability. The worst case can happen where liquidation or bankruptcy may occur due to the bank’s inability to manage its credit risk efficiently. Some financial analysts have attributed the rising trend of NPAs to GCB’s failure to increase its in-house capacity for risk analysis in the emerging oil and gas sectors. Are current credit risk policies ineffective in controlling credit risk in GCB? Is there a lax in implementation of credit risk policies? This study attempts to answer these questions by evaluating the existing credit risk management policies of the bank in order to identify the strengths and weaknesses and most importantly exploring ways of improving upon them.

1.2 Research Objectives

The main objective of this study is to evaluate the credit risk management practices of Ghana Commercial Bank Ltd. The specific objectives of the study are:

- To assess the credit quality of GCB over the period 2000-2010
- To evaluate the credit risk management practices in Ghana Commercial Bank Limited.
1.3 Research Questions

The study also intends to answer the following research questions:

- What is the quality of GCB credit portfolio over the period 2000-2010
- How effective are the existing credit risk management practices of GCB?

1.4 Justification of the Study

Effective credit risk management practices reduce the risk of customer default and help commercial banks remain competitive in the credit market. Goodhart (1998) noted that poor credit risk management which results in undue credit risk is one of the major causes of bank failure. Moreover, the extent to which banks manage their credit risk have implication for the survival and growth of financial sector and the economy as a whole. This study is therefore necessary to unravel the causes of high non-performing loans in GCB and how to deal with the situation. The findings from the study would be of immense benefit to managers of commercial banks, the central bank (the government) and the economy at large.

1.6 Research Methodology

The study adopted the qualitative approach to evaluate the credit risk management strategies being used by Ghana Commercial Bank (GCB). This approach is deemed appropriate for studying credit risk management strategies as it provides the researcher more descriptive space (see Cooper and Schindler, 2001). Detailed methodology is provided in chapter three.
1.6 Scope of the Study
The study was in the Ghanaian context and it covered Ghana Commercial Bank (GCB) for the period 2000 - 2010. The chapter one of the study covered certain introductory issues in the banking industry on credit risk management as well as the objectives of the study. The next chapter reviews both theoretical and empirical literature on the topic.

1.7 Limitations of the Research
This research is limited to Ghana Commercial Bank Credit Management Policies and therefore the findings, analyses and recommendations do not represent the entire banking industry. The extension of the analysis to other banks may offer different results. Cross border research may also bring out different outcomes and regulatory policies.

1.8 Organization of the study
The study is in five chapters. This current chapter discussed the background, statement of the problem, objectives, research questions, justification, limitations and research methodology of the study. Chapter two undertakes a review of literature on credit risk management strategies and the credit process with a focus on the credit risk management policies of GCB. Chapter three deliberated on the methodology used for the study. Chapter four presents and discusses the empirical results of the study. In chapter five, the summary, conclusions and recommendations of the study are provided. Besides, limitations of the study are made for future research.
CHAPTER TWO

LITERATURE REVIEW

3.0 Introduction
The chapter undertakes a survey of literature on the credit process, the various credit risk management practices and the phenomenon of non-performing loans and its effects on profitability. The literature review is done under two main captions. First, the study provides a survey of theoretical literature with the view of bringing to the fore the various theories of credit risk management. This would be followed by the empirical literature review which is considered as the application of the theories to solve problem.

2.1 THEORETICAL LITERATURE

2.1.1 What is Credit?
Credit is the trust which allows one party to provide resources to another party where that second party does not reimburse the first party immediately (thereby generating a debt), but instead arranges either to repay or return those resources (or other material of equal value) at a later date (Sullivan et al., 2003). The resources provided may either be financial (e.g. granting of loans), or they may consist of goods or services (e.g. consumer credit). Therefore credit encompasses any form of deferred payment which is extended by a creditor, also known as the lender, to a debtor also known as a borrower.

Credit is advanced to beneficiaries who promise to pay in a future date. Individuals, enterprises and other corporate entities have different reasons for accessing credit.
Therefore the purpose and the nature of credit have been categorized into short term, medium term and long term loans. Briefly, short term loans are advances (e.g. personal loans) extended with a repayment period of not more than five (5) years. Medium term loans (designed for Small and Medium Enterprises) have a repayment period that falls between five (5) and ten (10) years. Long term loans (for giant corporate entities) as the name implies have a repayment period of more than ten (10) years. In Ghana most of the credit accessed fall within the short and the medium term.

Advancing credit is key to banks operations, weighing significantly within the asset balance file. It has the potential of generating huge profit, but equally high risk. Practice show that credit risks are the highest registered in time by banks, in connection with losses.

Credit risk is an investor’s risk of loss arising from a borrower who does not make payment as promised (Bluhn, et.al. 2002).

2.1.2 The Credit Process

Oldfield and Santomero (1997) investigated risk management in financial institutions. In this study, they suggested four steps for active risk management techniques:

- The establishment of standards and reports;
- The imposition of position limits and rules (i.e. contemporary exposures, credit limits and position concentration);
- The creation of self investment guidelines and strategies; and
The alignment of incentive contracts and compensation (performance-based compensation contracts).

Loans that constitute a large proportion of the assets in most banks’ portfolios are relatively illiquid and exhibit the highest credit risk (Koch and MacDonald, 2000). The theory of asymmetric information argues that it may be impossible to distinguish good borrowers from bad borrowers (Auronen, 2003), which may result in adverse selection and moral hazards problems. Adverse selection and moral hazards have led to substantial accumulation of non-performing accounts in banks (Bester, 1994; Bofondi and Gobbi, 2003). The very existence of banks is often interpreted in terms of its superior ability to overcome three basic problems of information asymmetry, namely ex ante, interim and ex post (Uyemura and Deventer, 1993). The management of credit risk in banking industry follows the process of risk identification, measurement, assessment, monitoring and control. It involves identification of potential risk factors, estimate their consequences, monitor activities exposed to the identified risk factors and put in place control measures to prevent or reduce the undesirable effects. This process is applied within the strategic and operational framework of the bank.

Banks must have a process to analyze beneficiaries’ ability to service a facility advanced to them. In some instances, stringent policies must be put in place to prevent individuals that involve in fraudulent activities or crimes from accessing a facility. This can be achieved through a number of ways for example using reliable source of references, accessing credit bureaus, or becoming familiar with individuals responsible for managing a company and checking their references and financial conditions. Banks should desist
from advancing credit to reputable borrowers simply because they are known to the institution. Each loan application document should carefully be analyzed by a competent credit officer with the appropriate expertise commensurate with the size and complexity of the transaction. Therefore there should be a policy to specify the type of information and documentation necessary for a new credit approval, credit renewals, and/or change in terms and conditions of previously approved credits. The process of advancing credit is associated with many risks that financial institutions have to deal with.

2.1.3 Sources of Credit Risk
There are two main sources of credit risk factors. These are external and internal risk factors. The external risk factors are discussed below as follows:

2.1.3.1 Economic Conditions
Change in national income and unemployment will have impact on credit risk through change in business cycle, exchange rate, interest rate, credit availability and credit quality. Liquidity crunch or financial problems has the ability to impact borrowers’ ability to fulfill their obligation. In addition legal and regulatory change could cause financial institutions to change how they oversee a transaction, as well as the quality and ability of debt collection.

2.1.3.2 Competition
Competition among financial institutions in terms of growth, profitability and the desire to be a market leader have the ability to cause financial institutions to lower their standards or improperly price their loan products. This could result in higher cost of increasing non-performing loans.
The internal risk factors of credit risk includes;

2.1.3.3 Underwriting standards

This is a process to determine what type of, to whom, for what purpose and when credit should be granted. Proper credit approval process should comprise proper guidelines on both form and methodology in evaluating borrowers’ credit worthiness, setting up of credit line and interest rate appropriate to borrowers’ risk and credits. Lenient credit underwriting can incur losses to financial institutions especially when debt repayment cannot be demanded or collateral cannot be seized in time. Many credit risks arise from deficiency in underwriting standards and credit monitoring.

2.1.3.4 Competence of staff

Credit officers without the necessary expertise in the activities they are responsible for, be it credits, investment, management of problem assets or new products, can lead to poor lending practice, ineffective administration, and eventually, loss to financial institutions.

2.1.3.5 Management Information System (MIS)

Risk will increase if management does not regularly receive accurate and timely reports on credits. The reports shall comprise important information relating to underwriting process such as economic trends, change in the structure of industry, or market share, commodity prices, exchange rates, including past due credits, credit concentrations, and analysis of problem loans.
2.1.3.6 Inappropriate assessment of credit quality

This problem may result from competitive pressure and credit growth as they tend to put a time constraint on getting accurate data. Moreover, rapid growth and/or entry into new markets can tempt the management to lend without sufficient financial and economic analysis. To facilitate quicker decision making, management may support credit decisions by using simple indicators of credit quality such as borrowers’ characteristics, current and expected value of collateral or support of a parent company or affiliated companies.

2.1.3.7 Introduction of new products or services without proper risk assessment

Financial institutions that fail to thoroughly assess risk in the introduction of new products and do not install risk management system prior to launch of new products represents another important problem. With rapid credit growth and heightened competition, financial institutions are pressured to introduce new products and services to the market without proper testing. Not in line with the principle of proper credit underwriting, such practice can lead to several financial institutions to serious problems. Financial institutions that practice proper credit underwriting usually test new products and services before introducing to the general customers.

2.1.3.8 Subjective decision making

Subjective decision making by management happens especially when the borrower appears to have met the credit approval criteria. However, subjective underwriting without proper consideration on supporting data can lead to credit risk. Credit approval over the limit or overriding the policy is another factor contributing to credit risk. In
addition, the beneficiaries of these credits are usually related to senior management such as the companies owned by or affiliated with the management, friends or persons with unverified financial standing or celebrities. Maintenance of credit quality depends on prudent credit underwriting which should be in accordance with the policy. Credit overrides is highly unadvised.

2.1.3.9 Lending over and above the value of collateral

When credits are granted for purchasing or developing assets that are used as collateral, many financial institutions cannot assess the correlation between borrowers’ financial condition and income generating ability and price changes and liquidity of the market for the collateral. These types of credits such as commercial credits, hire purchase, factoring, and commercial real estate lending reveal high correlation between credit worthiness of borrowers and the quality of asset placed as collateral. This is because the borrowers’ primary income, the principal source of repayment, is directly related to the quality of the associated asset. When the borrowers’ income stream deteriorates, due to economic problems, the value of the asset placed as collateral is likely to decline.

2.1.3.10 Negligence of business cycle

Credits granted without taking into account of business cycle can cause an overly optimistic credit analysis. For example, businesses such as retail business, commercial real estate, real estate investment, and consumer lending tend to have strong cyclical effects. Nevertheless, the effect of business cycle is less than the effect of product cycle, especially new, rapidly growing products such as business related to telecommunication.
Effective stress testing that incorporate the effect of business cycle and product cycle is one approach for credit decision process and should induce clearer understanding in credit risk.

### 2.1.3.11 Credit Review

Independent and on-going credit review with accurate credit grading, appropriate amount and scope, and reporting to the management comprise good credit review since it allows financial institutions to monitor risk management and solve credit problems in an appropriate and timely manner. Such will prevent loss from failure of borrowers or counterparties to fulfill their obligations.

### 2.1.3.12 Lending in Excess

Lending in excess of the minimum required imposes risk. Lending in excess of borrowers’ ability to repay will result in problem loans.

### 2.1.3.12 Too much emphasis on income

Too much emphasis on income from credits over the credit quality leads to the granting of credits with high risk. In the long run, such practice may result in problem credits and incur cost higher than the income initially received.

### 2.1.3.13 Self–Dealing

Self-dealing can cause serious problems to financial institutions, resulting in failure of financial institutions. Such practices can be found in the form of excessive credits to insiders, overriding the specified credit policy, and use of authority to improperly obtain
credits without proper credit analysis, making it difficult for credit officers to appropriately assess the credits. Sometimes, insiders may apply for credits in the name of unrelated parties in order to conceal the self-dealing transactions.

2.1.3.14 Technical Incompetence

Technical incompetence is evident when management cannot obtain and assess credit information in order to analyze the viability of credit products. Such management weakness can eventually lead to loan losses.

2.1.3.15 Lack of Proper Supervision

Part of credit risks arise when financial institutions’ boards or management cannot oversee various units to ensure that they appropriately comply with the policy. Undoubtedly all banks in the present-day volatile environment are facing a large number of risks such as credit risk, liquidity risk, foreign exchange risk and interest rate risk, among other risks which may threaten a bank’s survival and success. In other words banking is a business of risk. For this reason efficient risk management is absolutely required. Carey (2001) indicates that risk management is more important in the financial sector than in other parts of the economy. The purpose of financial institutions is to maximize revenues and offer the most value to shareholders by offering a variety of financial services and especially by administering risks.
2.1.4 Credit Risk Management

For most banks, loans are the largest and most obvious source of credit risk; however, other sources of credit risk exist throughout the activities of a bank, including in the banking book and in the trading book, and both on and off the balance sheet. Banks are increasingly facing credit risk (default risk) in various financial instruments other than loans, including acceptances, interbank transactions, trade financing, foreign exchange transactions, financial futures, swaps, bonds, equities, options, and in the extension of commitments and guarantees, and the settlement of transactions. The objective of risk management is to reduce the effects of different kinds of risks related to a preselected domain to the level accepted by society. It may refer to numerous types of threats caused by environment, technology, humans, organizations and politics. On the other hand it involves all means available for humans, or in particular, for a risk management entity (person, staff, and organization).

From the above discussion, it is obvious that there are a number of risks and uncertainties in the banking industry viz-a-viz a more stringent regulatory framework, deregulation, increasing competition, increasing customer sophistication and generally harsh economic environment. These drivers make the adoption of effective credit risk management strategies important.

Risk can be classified into systematic and unsystematic risk. Systematic risk is associated with the overall market or the economy, whereas unsystematic risk is related to a specific asset or firm. Some of the systematic risk can be reduced through the use of risk
mitigation and transmission techniques. In this regard Oldfield and Santomero (1997) refer to three generic risk-mitigation strategies:

- Eliminate or avoid risks by simple business practices;
- Transfer risks to other participants; and
- Actively manage risks at the bank level (acceptance of risk).

2.1.4.1 Portfolio Theory and Traditional Method of Credit Risk Management

Since the 1980s, banks have successfully applied modern portfolio theory (MPT) to market risk. Many banks are now using earnings at risk (EAR) and value at risk (VAR) models to manage their interest rate and market risk exposures. Unfortunately, however, even though credit risk remains the largest risk facing most banks, the practical of MPT to credit risk has lagged (Margrabe, 2007).

Banks recognize how credit concentrations can adversely impact financial performance. As a result, a number of sophisticated institutions are actively pursuing quantitative approaches to credit risk measurement, while data problems remain an obstacle. Significant progress are been made towards developing tools that measure credit risk in a portfolio context.

Credit derivatives are also been used to efficiently transfer risk while preserving customer relationships. The combination of these two developments has precipitated vastly accelerated progress in managing credit risk in a portfolio context over the past several years.
2.1.4.2 Asset-by-asset Approach

Traditionally, banks have taken an asset-by-asset approach to credit risk management. While each bank’s method varies, in general this approach involves periodically evaluating the credit quality of loans and other credit exposures, applying a credit risk rating, and aggregating the results of this analysis to identify a portfolio’s expected losses. The foundation of the asset-by-asset approach is a sound loan review and internal credit risk rating system. A loan review and credit risk rating system enable management to identify changes in individual credits, or portfolio trends in a timely manner. Based on the results of its problem loan identification, loan review, and credit risk rating system management can make necessary modifications to portfolio strategies or increase the supervision of credits in a timely manner. Table 2.1 summarizes strategies for reducing and coping with portfolio credit risk.
Table 2.1 Strategies to deal with Portfolio credit risk

<table>
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<th>Advantages</th>
<th>Disadvantages</th>
<th>implication</th>
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<tbody>
<tr>
<td>Geographic Diversification</td>
<td>External shocks (climate, price, natural disasters, etc.) are not likely to affect the entire portfolio if there is spatial diversification.</td>
<td>If the country is small or the Institution is capital constrained, it may not be able to apply this principle. It will become vulnerable to covariate risk, which is high in agriculture.</td>
<td></td>
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<tr>
<td>Loan Size Limits (Rationing)</td>
<td>Prevents the institution from being vulnerable to nonperformance on a few large loans.</td>
<td>Can be carried to the extreme where loan size does not fit the business needs of the client and results in Suboptimal use and lower positive impact by client. Client could become dissatisfied</td>
<td>Protects asset quality in the short run but creates client retention problems in the long run. Inimical to relationship banking.</td>
</tr>
<tr>
<td>Over Collateralization</td>
<td>Assures the institution that enough liquidation value will exist for foreclosed assets.</td>
<td>Excludes poor, low-income clients who are the vast majority of the market.</td>
<td>Not a recommended technique if goal is to better serve the low- and moderate income clients.</td>
</tr>
<tr>
<td>Credit Insurance</td>
<td>Bank makes clients purchase credit insurance. In event of default, bank collects from insurer.</td>
<td>Databases and credit bureaus may not exist to permit insurer to engage in this line of business in cost-effective manner.</td>
<td></td>
</tr>
<tr>
<td>Portfolio Securitization</td>
<td>Lender bundles and sells loans to a third party. Transfers default risk and improves liquidity so that it can continue to lend. Allows lender to develop expertise in analyzing creditworthiness in one Sector or niche.</td>
<td>Requires well documented loans and long time series of performance data to permit ratings and reliable construction of financial projections.</td>
<td>Requires a well developed secondary market, standardized underwriting Practices and existence of rating companies.</td>
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</table>

2.1.4.3 Portfolio Approach

While the asset-by-asset approach is a critical component to managing credit risk, it does not provide a complete view of portfolio credit risk, where the term risk refers to the possibility that actual losses exceed expected losses. Therefore to gain greater insight into credit risk, banks increasingly look to complement the asset-by-asset approach with a quantitative portfolio review using a credit model.

Banks increasingly attempt to address the inability of the asset-by-asset approach to measure unexpected losses sufficiently by pursuing a portfolio approach. One weakness with the asset-by-asset approach is that it has difficulty identifying and measuring concentration. Concentration risk refers to additional portfolio risk resulting from increased exposure to a borrower, or to a group of correlated borrowers. Table 2.1 summarizes strategies for reducing and coping with portfolio credit risk.

2.1.4.2 Traditional Approach

It is hard to differentiate between the traditional approach and the new approaches since many of the ideas of traditional models are used in the new models. The traditional approach is comprised of four classes of models;

2.1.4.3 Expert Systems

In the expert system, the credit decision is left in the hands of the branch lending officer. His expertise, judgment, and weighting of certain factors are the most important determinants in the decision to grant loans. The loan officer can examine as many points
as possible but must include the five “Cs”. These are; character, credibility, capital, collateral and cycle (economic conditions) in addition to the 5 Cs, an expert may also take into consideration the interest rate.

2.1.4.4 Artificial Neural Networks

Due to the time consuming nature and error-prone nature of the computerized expertise system, many systems use induction to infer the human expert’s decision process. The artificial neural networks have been proposed as solutions to the problems of the expert system. This system simulates the human learning process. It learns the nature of the relationship between inputs and outputs by repeatedly sampling input/output information.

2.1.4.5 Internal Rating at Banks

Over the years, banks have subdivided the past/performing rating category, for example at each time, there is always a probability that some past or performing loans will go into default, and that reserves should be held against such loans.

2.1.4.5 Credit Scoring Systems

A credit score is a number that is based on a statistical analysis of a borrower’s credit report, and is used to represent the creditworthiness of that person. A credit score is primarily based on credit report information. Lenders, such as banks use credit scores to evaluate the potential risk posed by giving loans to consumers and to mitigate losses due to bad debt.
2.1.4.6 General Issues in Credit Risk Modelling

Lopez et al., (1999), states that the field of credit risk modelling has developed rapidly over the past few years to become key component in the risk management system in financial institutions. Cebenoyan et al., (2004) further confirm that in recent years, risk management at banks has come under increasing scrutiny. As a result banks and bank consultants have attempted to sell sophisticated credit risk management systems that can account for borrower risk (e.g. rating), and perhaps more importantly, the risk reducing benefits of diversification across borrowers in a large portfolio. Regulators have even begun to consider using banks’ internal credit models to devise capital adequacy standards.

In fact, several financial institutions and consulting firms are actively marketing their credit risk models to other institutions. In essence, such models permit the user to measure the credit risk present in their asset portfolios. This information can be directly incorporated into many components of the user’s credit portfolio management, such as pricing loans, setting concentrated limits and measuring risk adjusted profitability.

As summarised by the American Federal Reserve System Task Force (FRSTF 1998) on Internal Credit Risk Models, and the Basel Committee on Banking Supervision (BCBS, 1999), there exists a wide variety of credit risk losses models that differ in their fundamental assumptions such as their definition of losses as loan defaults, while mark-to-market or multi-state models define credit losses as ratings migration of any magnitude. However, the common purpose of these models is to forecast the probability distribution function of losses that may arise from a bank’s credit portfolio.
2.1.5 Essentials of Effective Credit Risk Management in Banking

Basel II Accord identifies that effective credit risk management is a critical component of a bank’s overall risk management strategy and is essential to the long-term success of any banking organisation. Overall, the components of effective credit risk comprise:

- active Board and Senior management oversight
- sufficient policies, procedures and limits
- adequate risk measurement, monitoring
- management information systems
- and comprehensive internal controls

2.1.6 Managing Credit Risk Using Financial Ratios

Ratio analysis is a tool used by firms to conduct a quantitative analysis of information in a company's financial statements. Ratios are calculated from current year numbers and are then compared to previous years, other companies, the industry, or even the economy to judge the performance of the company. Ratio analysis is predominately used by proponents of fundamental analysis. There are many ratios that can be calculated from the financial statements pertaining to a company's performance, activity, financing and liquidity. Financial statements contain enough information that provides insight into the creditworthiness of a customer. Ratios that is particularly useful in evaluating the creditworthiness of a customer may include current ratio, acid test ratio, debt-equity ratio, EBIT- Total Assets ratio and return on equity ratio.
2.1.7 Credit Risk Management Practices

Most financial institutions have collapsed or experienced financial problems due to inefficient credit risk management systems typified by high levels of insider loans, speculative lending, and high concentration of credit in certain sectors among other issues. Credit risk management practices and poor credit quality continue to be a dominant cause of bank failures and banking crises worldwide. The extent to which banks manage their credit risk have an impact on their entire financial performance or survival. The causes of high non-performing loans are as a result of low credit risk management system and this may affect profitability. Therefore, failure to effectively manage credit risk mostly contributes to banks' financial crisis. Poor corporate governance, inadequate risk management systems, ill planned expansion drives, chronic liquidity challenges, foreign currency shortages and diversion from core business to speculative non-banking activities are some factors that may contribute to the high non-performing loans. Effective credit risk management practices reduce the risk of customer default. Non-performing loans cause bank failure as the failure of a bank is seen mainly as the result of mismanagement because of bad lending decisions made with wrong appraisals of credit status or the repayment of non-performing loans and excessive focus on giving loans to certain customers.

failure. Irregular meetings of loan committees, false loans, large treasury losses, high sums of unrecorded deposits and money laundering in large amounts, contribute to bank failure.

2.1.8 Credit Risk Measurement

The ability of banks to measure credit risk clearly has the potential to greatly improve risk management capabilities. With the forecasted credit loss distribution in hand, the user can decide how best to manage the credit risk in a portfolio, such as by setting aside the appropriate loan loss reserves or by selling loans to reduce risk. Andersen, J. *et al.*, (2000) explain that to a greater degree the use of credit risk models will enable the banks to undertake portfolio management, which takes due account of the varying impact of business cycles on lending. Moreover the models will make it possible to assess risk and earnings, thereby for each loan ensuring an appropriate trade–off between yield and the risk assumed by the bank, not only for the individual loans, but also in relation to the rest of the loan portfolio.

It is important to note, however, that in the process of banks to make decisions to grant credit they will continue to depend on an assessment of the actual risk with an exposure details. As in traditional credit assessment, the basis for a credit model is to determine the risk and earnings on each credit exposure. However, in a credit model it is not sufficient to estimate earnings and risk on the basis of qualitative groupings. On the contrary, exact measures must be set for each individual exposure.
As in the case of risk assessment of each credit exposure, the use of a credit model implies that the correlation can be quantified in terms of exact correlation data. It is thus not enough merely to have a general overview of the correlations between the various types of loans. Instead, there must be an exact statistical measure of the links to all other types of loans in the credit portfolio.

There are different types of credit risk measurement tools but for the purpose of this research, discussion will be limited to commercial credit tool. The main variables affecting the credit risk of a financial asset are the probability of default (PD), the loss-given default (LGD), and the exposure at default (EAD) Baixauli and Alvarez (2009).

2.1.9 Probability of Default (PD) Models- these are meant for a group of borrowers with similar characteristics and it has the ability to predict the number of borrowers that are likely to default over a specific time horizon, e.g. one year (Duffie et al., 2003). Baixauli and Alvarez (2009), define Probability of Default (PD) as the estimate of the likelihood of the borrower defaulting on its obligations within a given horizon. PD is calculated for each client who has a loan (for wholesale banking) or for a portfolio of clients with similar attributes (for retail banking) de Servigny et al., (2004). The credit history of the counterparty/portfolio and nature of the investment are also taken into account to calculate the PD.
The following steps are commonly used to arrive at the probability of default:

- Analyse the credit risk aspects of the counterparty/portfolio;
- Map the counterparty to an internal risk grade which has an associated PD: and
- Determine the facility specific PD.

The last step will give a weighted Probability of Default for facilities that are subject to a guarantee or protected by a credit derivative. The weighting takes account of the PD of the guarantor or seller of the credit derivative.

Once the probability of default has been estimated, the related credit spread and valuation of the loan is the next step.

In a general form, the PD is given as (Cantor et al., 2006):

\[
PD = \frac{EL}{LGD \times EAD}
\]

2.1.10 Loss Given Default (LGD) Models- these attempt to predict the amount of loss in a credit in the event of default. It is based on the characteristics of the facility, i.e. collateral covenants etc Duffie (2003). The LGD is defined as the loss incurred in the event of default and it is equal to one minus the recovery rate at default (Baixauli and Alvarez, 2009). Moody's LGD assessments are opinions about expected loss given default on fixed income obligations expressed as a percent of principal and accrued interest at the resolution of the default. LGD assessments are assigned to individual loan, bond, and preferred stock issues. The firm-wide or enterprise expected LGD rate is a weighted average of the expected LGD rates on its constituent liabilities (excluding
preferred stock), where the weights equal each obligation's expected share of the total liabilities at default (Cantor et al., 2006).

Expected LGD is the difference between value received at default resolution (either through bankruptcy resolution, distressed exchange, or outright cure) and principal outstanding and accrued interest due at resolution (Cantor et al., 2006). The LGD is stated mathematically as:

\[ 1 - R_i \]

where; \( R_i \) is the value received at default resolution or the recovery rate of the default instrument (Baixauli and Alvarez, 2009). Consequently, the expected LGD rate is given as:

\[
\frac{\text{Expected LGD}}{\text{Expected amount of principal and interest due at resolution}}
\]

**2.1.11 Exposure at Default (EAD) Models** - these are designed for unfunded lines of credit and it attempts to determine the amount of exposure that will exist at the time of default. It is based on characteristics and purpose of the facility and the behaviour of the borrower (Duffie 2003). The total value that a bank is exposed to at the time of default or the nominal value of the borrower’s debt is what is termed as Exposure At Default (EAD) (Baixauli and Alvarez, 2009). Each underlying exposure that a bank has is given an EAD value and is identified within the bank's internal system. Using the internal ratings board
For both individual loan and other credit portfolios the credit risk is quantified by evaluating two central parameters: the expected loss and the unexpected loss. The expected loss (EL) indicates the expected level of the credit loss on the loan /credit portfolio and this is given as (Cantor et al., 2006):

$$\text{EL} = PD \times \text{LGD} \times \text{EAD}$$

In principle, EL is not a part of the risk, but can be perceived as a cost. The actual risk on the other hand, comprises the unexpected loss (UL). UL thus expresses the scale of the loss in more extreme circumstances, i.e. in situations where the development is not as expected. It must be possible to cover such losses from the bank’s own funds.

2.1.12 Non-Performing Loan and Profitability

According to the International Monetary Fund, a non-performing loan is any loan in which: interest and principal payments are more than 90 days overdue; or more than 90 days' worth of interest has been refinanced, capitalized, or delayed by agreement; or payments are less than 90 days overdue but are no longer anticipated. Again, a non-performing loan is one in which the maturity date has passed but at least part of the loan is still outstanding. The specific definition is dependent upon the loan's particular terms. The huge bad debts recorded by most Ghanaian banks in 2009 and early parts of this year have affected the performance of the financial intermediaries. According to the Bank of Ghana (BoG), the current level of Non-Performing Loans (NPLs) was impacting the
balance sheets of the banks. The Central Bank, in a statement, revealed that the ratio of NPL to gross loans had declined, but it was affecting overall credit delivery in the banking sector.

Park (2002) states in a study that according to the Financial Agency Services, the total sum of non-performing loans extinguished from the book for the entire banking industry of Japan since 1992 amounted to nearly 69 trillion yen, but the new non-performing loans cropped up faster than the ones retired. Non-performing loans have a fundamental effect on how banks set rates, and that remains a problem because those who pay their loans then have to pay for those who don’t.

In unstable economic environments interest rates charged by banks are fast overtaken by inflation and borrowers find it difficult to repay loans as real incomes fall, insider loans increase and over concentration in certain portfolios increases giving a rise to credit risk. Non-performing loans have become a serious concern and an issue to investigate and finding a solution is becoming an emergency.

Among the different aspects of the banking system which could be analyzed, the focus is on bank profitability. Healthy and sustainable profitability is essential and very vital in maintaining the stability of the banking system. Even if solvency is high, poor profitability weakens the capacity of a bank to absorb negative shocks, which will eventually affect solvency. Profitability reflects how banks are run given the environment in which banks operate. In fact, profitability should mirror the quality of a bank’s management and the shareholders’ behaviour, the bank’s competitive strategies, efficiency and risk management capabilities.
From the above discussion it presupposes that banks do not adhere strictly to the various credit models, the ten principles proposed by BIS, regulatory framework in the banking industry and effective credit management practices. That might contribute to the quite a significant proportion of the advances going bad.

There is therefore the need for banks to develop and implement credit scoring and assessment methodologies, review and update the insider lending policies and adopt prudential corporate governance practices in order to reduce non-performing loans and hence contributing to high profitability.

2.1.13 Credit Risk Confronting GCB

Ghana Commercial Bank Limited is the largest bank in terms of size in Ghana and interest income account for over 75% of its revenue. Probably due to its size, management faces the challenge to manage its loan portfolio by putting in place measures to recover the advances as well as reduce loan loss provisioning at all times. GCB has huge amount of cash (money) with its borrowers representing bad and doubtful debts in its books.

2.2 EMPIRICAL LITERATURE

Niinima’ki (2004) in his paper entitled “The effects of competition on banks’ risk taking” found that the magnitude of risk taking depends on the structure and side of the market in which competition takes place. He also concluded that if the bank is a monopoly or banks are competing only in the loan market, deposit insurance has no effect on risk taking. Banks in this situation tend to take risks, although extreme risk taking is avoided. In
contrast, introducing deposit insurance increases risk taking if banks are competing for deposits. In this case, deposit rates become excessively high, thereby forcing banks to take extreme risks.

Several risk-adjusted performance measures have been proposed (Heffernan, 1996; Kealhofer, 2003). The measures, however, focus on risk-return trade-off, i.e. measuring the risk inherent in each activity or product and charge it accordingly for the capital required to support it. This does not solve the issue of recovering loanable amount.

Effective system that ensures repayment of loans by borrowers is critical in dealing with asymmetric information problems and in reducing the level of loan losses, thus the long-term success of any banking organization (Basel, 1999; IAIS, 2003). Effective CRM involves establishing an appropriate credit risk environment; operating under a sound credit granting process; maintaining an appropriate credit administration that involves monitoring process as well as adequate controls over credit risk (Basel, 1999; Greuning and Bratanovic, 2003; IAIS, 2003). It requires top management to ensure that there are proper and clear guidelines in managing credit risk, i.e. all guidelines are properly communicated throughout the organization; and that everybody involved in Credit Risk Management (CRM) understand them.

Considerations that form the basis for sound CRM system include: policy and strategies (guidelines) that clearly outline the scope and allocation of a bank credit facilities and the manner in which a credit portfolio is managed, i.e. how loans are originated, appraised, supervised and collected (Basel, 1999; Greuning and Bratanovic, 2003; PriceWaterhouse, 1994). Screening borrowers is an activity that has widely been recommended by, among
others, Derban et al (2005). The recommendation has been widely put to use in the banking sector in the form of credit assessment. According to the asymmetric information theory, a collection of reliable information from prospective borrowers becomes critical in accomplishing effective screening.

The assessment of borrowers can be performed through the use of qualitative as well as quantitative techniques. One major challenge of using qualitative models is their subjective nature (Bryant, 1999; Chijoriga, 1997). However, borrowers attributes assessed through qualitative models can be assigned numbers with the sum of the values compared to a threshold. This technique is termed as “credit scoring” (Heffernan, 1996; Uyemura and Deventer, 1993). The technique cannot only minimize processing costs but also reduce subjective judgments and possible biases (Kraft, 2000; Bluhm et al., 2003; Derban et al., 2005). The rating systems if meaningful should signal changes in expected level of loan loss (Santomero, 1997). Chijoriga (1997) concluded that quantitative models make it possible to, among others, numerically establish which factors are important in explaining default risk, evaluate the relative degree of importance of the factors, improve the pricing of default risk, be more able to screen out bad loan applicants and be in a better position to calculate any reserve needed to meet expected future loan losses. Clear established process for approving new credits and extending the existing credits have been observed to be very important while managing CR (Heffernan, 1996).

Further, monitoring of borrowers is very important as current and potential exposures change with both the passage of time and the movements in the underlying variables (Donaldson, 1994; Mwisho, 2001), and also very important in dealing with moral hazard
problem (Derban et al., 2005). Monitoring involves, among others, frequent contact with borrowers, creating an environment that the bank can be seen as a solver of problems and trusted adviser; develop the culture of being supportive to borrowers whenever they are recognized to be in difficulties and are striving to deal with the situation; monitoring the flow of borrower’s business through the bank’s account; regular review of the borrower’s reports as well as an on-site visit; updating borrowers credit files and periodically reviewing the borrowers rating assigned at the time the credit was granted (Donaldson, 1994; Treacy and Carey, 1998; Tummala and Burchett, 1999; Basel, 1999; Mwisho, 2001).

Tools like covenants, collateral, credit rationing, loan securitization and loan syndication have been used by banks in developing the world in controlling credit losses (Benveniste and Berger, 1987; Greenbaum and Thakor, 1987; Berger and Udell, 1992; Hugh, 2001). It has also been observed that high-quality CRM staffs are critical to ensure that the depth of knowledge and judgment needed is always available, thus successfully managing the credit risk in Commercial Banks (Koford and Tschoegl, 1997; Wyman, 1999).

Donaldson (1994) and Jeremy and Stein (1999) observed that computers are useful in credit analysis, monitoring and control, as they make it easy to keep track on trend of credits within the portfolio. Marphatia and Tiwari (2004) argued that risk management is primarily about people how they think and how they interact with one another. Technology is just a tool; in the wrong hands it is useless. This stresses further the critical importance of qualified staff in managing credit risk.
2.3 Conclusion

The chapter reviewed literature on a wide range of issues bordering on credit risk management. It begun by defining the concept of credit and credit risk while discussing the sources of credit risks which emanated from both external and internal sources. Subsequently, literature on credit risk management was extensively explored to bring the main issues to the fore. Besides, the chapter discussed literature on non-performing loans and profitability.
CHAPTER THREE

METHODOLOGY

3.0 Introduction
This chapter gives a brief description of the research method employed, the population considered as well as discusses the sample and sampling procedures. It also discusses the sources of data, the data collection procedures and the type of research instrument used. It also features prominently, the type of data analysis adopted for the study.

3.1 Research Method
A case study approach was adopted to evaluate credit risk management strategies of Ghana Commercial Bank Limited. The choice of the case study method was motivated by the fact that it enables the researcher to conduct a systematic enquiry into an event or a set of related events which aim to describe and explain the phenomenon of interest. Since the study is interested in assessing credit risk management strategies of the bank, the case study method is deemed appropriate as it enables the research to conduct an in-depth analysis of the phenomenon of interest. Face-to-face interviews were conducted with a senior credit officer of the Ghana Commercial Bank Ltd while data on total advances and non-performing loans were obtained from the books of accounts and annual reports.

3.2 Target Population and sample
The focus of this study is to evaluate credit risk management strategies of Ghana Commercial Bank Limited. GCB was chosen because GCB is a Ghanaian Bank, it has a
huge staff strength of not less than five thousand (5000), supports the government in its transactions e.g. the issuance of Letter of Credits (LCs) in financing Tema Oil Refinery debts, has huge total deposits and has 157 branches across the length and breadth of the country. To this effect all employees of the bank constitute the population of the study. However, since the study is interested in credit related matters, credit officers of the bank are the sample of interest. Ghana Commercial Bank Ltd has a common credit risk management strategy. Therefore, the study interviewed a senior credit officer at the Head-Office of the Bank to elicit responses for analysis.

3.3 Sampling Technique
In order to ensure that accurate and reliable information on credit risk management is obtained, the study adopted the purposive sampling technique in deciding on whom to interview. The choice of the purposive sampling technique was motivated by the fact that the information on credit risk management strategies is specific and therefore an expert with the requisite experience is required in order to achieve data that is reliable.

3.4 Research Instrument
The procedure employed in this study was to solicit data through the use of interview. The researcher therefore prepared an interview guide to facilitate the process. A number of questions relating to credit risk management strategies were listed. Most of the question has been structured to elicit a specific response after which a follow up question is asked for further elaboration. In order not to skip any information on the interview, the researcher recorded the interview with permission from the interviewee. The interview
guide comprise of two main sections. The first section deals with questions relating to the bank’s credit risk management policies and strategies. In the second section, questions bordering on implementation of risk management strategies and their outcomes were asked.

3.5 Interview Process

The researcher wrote formally to the Head Office of Ghana Commercial Bank Ltd to communicate to them about the need to interview credit officers on the bank’s credit risk management strategies. The bank then wrote back to the interviewee after agreeing to allow the researcher to conduct the interview. The researcher then communicated with the interviewee the date and time that will be suitable for the interview. The researcher with the aid of an interview guide and a recorder then conducted the interview to elicit responses for analysis.

3.6 Data Analysis

Data analysis was basically narrative in nature. The response from the interview were streamlined and then reported. Besides, trend analysis of total advances and non-performing loans was conducted to complement the findings from the interview.
CHAPTER FOUR

PRESENTATION AND DISCUSSION OF RESULTS

4.0 Introduction

This chapter presents the findings of the study based on the methodology espoused in chapter three. This is followed by the discussion of the results. The findings from the study are discussed under two main sections. In the first section, the study conducts an evaluation of the credit risk management practices in Ghana Commercial Bank Ltd. The second section looks at the outcome of the policies by assessing the quality of the bank’s credit portfolio over the period 2000-2010.

4.1 Evaluation of Credit Risk Management Practices of GCB Ltd

4.1.1 GCB Credit Risk Management Policy

According to the Credit Officer, credit constitutes by far the largest part of a financial institution’s business and therefore the extent to which credit risk is being managed effectively has implication for the growth and survival of organization. Ghana Commercial Bank Ltd being aware of the importance of credit risk management has implemented a number of policies to reduce credit risk and its associated phenomenon of non-performing loans. A number of findings were obtained based an interview with a senior credit officer at GCB.
It was revealed from the interview that GCB has a clear, written guideline on credit risk management with the board of directors having an oversight responsibility for implementation. The Bank’s credit policy include guidelines on issues such as: objective of the credit policy, credit approval levels at various levels of authority and approving exceptions, limit on aggregate loans and commitments, risk identification, measurement, monitoring and control, risk acceptance criteria, credit origination, administration and loan documentation procedures, roles and responsibilities of units/staff involved in origination and management of credit, target markets, portfolio mix, pricing and non-pricing terms, reporting requirements, off balance sheet exposure, guidelines for the management of problem loans, lack of processing facilities. This document is supposed to serve as a guide to all credit officers of the bank and employees in general with matters relating to credit.

There is no doubt that having a documented credit policy is laudable effort, however it is just the first step, how effective the policy is being implemented is the main challenge here. Mismanagement of the credit risk function can pose a serious threat to a financial institution’s continued existence, with resulting impact on the interest of depositors and other stakeholders. Prudential credit risk management should therefore be of utmost importance financial institution including GCB.

4.1.2 GCB Credit Risk Management Practices

GCB’s key credit risk management practice is to control its credit processes such that it would result in maximum credit impairment of 1% of the whole credit portfolio. It should
be noted that this practice is in line with Bank of Ghana’s directives to banks to achieve 1% maximum impairment which means all the credit facilities shall be in the current category. This would signify the most efficiently managed credit portfolio in any financial institution in Ghana. In an attempt to achieve the 1% maximum impairment practice, a complementary practice is employed. This practice entails the realigning of quantum of credits within various sectors grouped into a credit portfolio depending on environmental factors such as political regimes, macroeconomic strategy of political regimes, new and existing regulations and legislation, social concerns of operating markets and technological developments within the banking industry in Ghana.

The interview with the senior credit officer of GCB revealed the specific tactics used by the bank to achieve its credit risk management objectives. The procedures are discussed below under three main captions

**Risk Assessment and Approval Procedures**

GCB uses both qualitative and quantitative methods in establishing a borrower’s needs. In personal and consumer loans requests, the Bank uses the Experian software which captures components of the 5Cs to assess credit scoring to aid decision making. In business requests GCB uses quantitative analysis including interpretation of ratios, projected cash flow forecasts, repayment computations, risk ratings, value of collateral, etc. but also qualitative evaluation of key credit information. The Bank uses Moody’s Analytics to make quantitative informed decision. The qualitative information analysis include the background of customers, the internal and external environment, evaluation
of management, board, demand and markets, customer behaviour, customer segment, strategy of the business in the industry, etc. If a credit risk is assessed as a bankable proposition, the request may be approved by a sanctioned credit committee.

**Risk Monitoring and Supervision Procedures**

Once a credit request is approved, the task of supervising disbursement and monitoring repayment until a facility is paid off is a job function undertaken by the Credit Administration Unit of the Risk Management Division. It ensures that the appropriate information about a credit approval is placed at the disposal of a customer. It also ensures that credit limits are not breached, covenants are respected, collaterals are perfected, risk ratings are monitored, credit reports are generated for management’s attention, review, rescheduling or refinancing of credit after beneficiaries have submitted relevant documents. The unit also updates customers’ files, especially Know Your Customer information. Credit Relationship Managers follow up on customer’s business progress. They visit customers’ business premise or shops to review progress in sales, debt collection, etc. A unit of the Risk Management Division is responsible for credit mitigation, remedial measures and recovery including legal action leading to foreclosure and sale of collaterals.

**Risk Control Procedures**

These are the methods GCB uses to get rid of or manage credit risk: These includes;
Avoidance: the Bank declines the credit and suggests alternative sources of financing such as venture capital to the customer.

Prevention: the Bank will not encourage a customer to submit requests for certain types of credits where the Bank knows it has no requisite competence to manage it.

Contingency: the Bank approves the credit but has a prearranged plan of action that will come into force as and when the risk occurs.

Reduction: the Bank may request the customer to finance a certain percentage of the overall request to show or indicate the customer’s willingness to share in the risks associated with the credit.

Transference: the Bank transfers the credit risk to a third party such as taking insurance cover over the credit approved.

Acceptance: the Bank tolerates the risk of credit approvals when its likelihood and impact are relatively minor or when it would be too inexpensive to mitigate it.

4.2 Quality of GCB Credit Portfolio

4.2.1 Appraisal Techniques

All credit approval is based on appraisal reports. Under no circumstance should credit facility be granted without an appraisal report or on the basis of verbal or telephone instructions.

The financial aspect of the appraisal report is generated from Moodys Financial Analyst Software and Esperian Software and submitted together with other nonfinancial information. At the Area Managers levels where the credit software may not be accessible, appraisals shall be based on a format approved by Head Office.
Detailed appraisal procedures for each category of credit product is made available for the guidance of lending officers, branch managers and other staff with credit-related responsibilities.

**Risk Management**

The risk management division enforces strict compliance of the credit guidelines and policy benchmarks with respect to all approved credits by:

- Providing check-and-balances for credit. Activity is directed toward Risk Management at Head Office and at Branch/Area levels.
- Monitoring overall lending rules, policies and guidelines for branches by ensuring that these are consistently applied and provide general supervision to ensure that credit risk and portfolio composition are kept within the Banks risk taking ability.
- Monitoring the loan portfolio and advising management with particular attention to business segment, tenor, classified credits or unusual trends.
- Reviewing strategy on significant adverse exposure.
- Reviewing each adversely classified loan and submitting reports thereon to management.
- Tracking quality loans of one hundred million Ghana cedis (GHS 100,000,000.00) and over (fifty thousand Ghana cedis (GHS 50,000.00) or over in case of adversely classified) through a review of Credit Reports.

**Risk Ratings**

Risk ratings are assigned to customers in order to differentiate and manage levels of risk in individual exposures. Risk ratings are specifically used to:

1. guide policies which control individual exposures with regard to the degree of risk;
2. identify deteriorating credits which may become non-performing according to regulatory definition;
3. Reflect the probability that a given customer may default on its obligations to repay principal, interest, or fees to GCB in a timely fashion.

In general, GCB continues to adopt the rating system sanctioned by the Bank of Ghana, which is purely based on the past due status of the facility, for provisioning purposes. However, for a more conservative portfolio profile, the Bank adopts a more aggressive rating system, which will accurately reflect the level of risk associated with the customer.

**Role of Credit Administration**

Credit Administration’s periodic examinations of GCB’s risk rating profile, serves as an independent verification of the accuracy of the ratings assigned by Relationship Managers/SME Officers. If Credit Administration disagrees with a rating assigned by the Relationship Managers/SME Officers, the disagreement is noted in the report prepared by the Credit Administration, summarising the variances by the business unit. If the variances are deemed significant, changes to the ratings is processed by Credit Administration. If not significant, the business unit and its response to the report indicate the disposition of the rating change. The final authority for the integrity of the risk ratings rests with the Credit Administration.

**Accuracy and Timeliness**

It is essential that risk ratings be accurate at all times. Changes to ratings is initiated immediately upon receipt of material information, which suggests the current rating is inappropriate and documented in a credit comment.

**Periodic Review of Rating by Relationship/SME Officer**

The rating assigned to a credit should at all times be one most descriptive of the relationship manager’s or SME Officer’s current knowledge of the borrower’s condition and facility circumstances. Regardless, the rating is formally reaffirmed by the Officer in writing, justifying the rating or any change in the credit comment.
Rating Guarantors

Ratings are required for all guarantors. The amount of analysis required for guarantors must be commensurate with the nature of the guarantee and the value placed upon it when the credit decision is made.

Guarantor as a primary basis for credit decision.

When the guarantor is the primary factor upon which the credit decision is based, the rating of the borrower is adjusted to reflect the rating applicable to the guarantor. In all such instances current financial information, which fully discloses the direct and contingent liabilities and cash flow of the guarantor is included in the file and rigorously analysed on an ongoing basis. Assign the legal borrower the same risk rating as the guarantor, if all GCB’s obligations of the borrowing entity are guaranteed.

Guarantor as fallback.

The potential strength of a guarantor becomes a primary factor in the determination of the Bank’s comfort level with the facility, which will not otherwise be considered highly collateralized. Thorough analysis of the guarantor and justification of its rating must be documented on an ongoing basis.

Guarantor as steward

In a case where the guarantor brings little or no additional financial strength to the customer or facility, but serves a managerial or overseeing role of import to the ultimate success or failure of the endeavour, the customer rating will not be adjusted on the basis of guarantor’s support. In these cases, stewardship as the basis for the guarantee must be clearly articulated in the file, and the guarantor must be reviewed and his or her rating confirmed on an annual basis.
Guarantees

A guarantee is a written legal contract used to strengthen the lending relationship. The guarantee’s strength lies in the promise of prompt payment by the guarantor of the obligation of another party (the borrower). The guarantor is indirectly or contingently liable for the borrower’s obligations based upon the term of the guarantee agreement.

Guarantee Forms

The printed standard guarantee forms in use at the GCB contain all the necessary elements of a satisfactory guarantee. For transactions involving guarantor’s use of its own guarantee forms, GCB obtains a certified copy of the resolutions of the guarantor’s Board of Directors authorising guarantee. In no event are GCB’s guarantee forms to be used for transactions with guarantors located outside Ghana, as the guarantee must comply with of the guarantor’s country. In situations involving potential non-Ghanaian guarantors, the Bank’s Legal Office or other legal counsel is consulted to ensure that an enforceable guarantee is prepared.

Housing Guarantees

As a rule, guarantees are housed in a central and secured area (generally, a documentation unit – Legal Department) with direct reporting responsibility to the Managing Director.

Minimum Requirement of a Guarantee

A satisfactory guarantee must contain the following elements:

1. The correct legal name of a customer. It must be ensured that the corporate designation such as Corporation, Inc., Co., or S.A. is accurate.
2. The guarantee is an absolute, unconditional and continuing guarantee with the guarantor acting as principal obligor.
3. The guarantee is for the full punctual payment of the customer’s obligations. (NB: a guarantee only for the collectability of obligations is not acceptable.)
4. Payment is required in the currency of the customer’s obligations. (NB: if the
guarantee is limited, the limitation amount should be expressed in the currency of
the underlying obligations).
5. The guarantee will remain in effect notwithstanding any amendments of the
documentation of the guaranteed facility or any extensions or renewals thereof.
6. A choice of jurisdiction clause.
7. Regular guarantor’s financial disclosure.

**Power of a Proposed Guarantor to give a Guarantee**

**Corporations**

Generally, a corporation must have the affirmative power to issue the guarantee, and
must have taken such steps as are required by law (i.e., a vote by the corporation’s board
of directors or stockholders).

**Individuals**

Generally, adult individuals have unlimited powers to give guarantee.

Usually, the powers of individuals to give guarantees may be limited by law of the
country in which they live.

**Release of Collateral and Guarantees**

When collateral and guarantees are released, a new credit is created and approval is
required pursuant to Chapter 3 of GCB Credit Policy Manual. Collateral and guarantees
on paid loans should not be released until all interest and accrued fees have been paid,
and after verification that the documentation is not crossed-collateralised to another loan
or guarantee.
The authority to advice release of collateral or guarantees rests with the Risk Management Division, therefore in order to release collateral or guarantee, a Branch/Relationship Manager must send a written request to the Risk Management Division.

4.3 Trend Analysis of Total Advances and NPAs.

In this section, the study undertakes a trend analysis of total advances made by the bank as against non-performing loans. The rationale is to examine whether the various credit risk management strategies being implemented by GCB are yielding the expected results by reducing the amount of non-performing loans.

From the diagram in Figure 4.1, it is evident that, apart from 2001 to 2002 where there was a dip in credit, total advances made by GCB for the decade has shown a rising trend from year to year. This lends credence to the credit expansion drive of the bank in support of businesses in the economy. The graph further revealed that non-performing loans has risen sharply from 2008 to 2010, though it has witnessed some decline from 2001 to 2002 and from 2005 to 2006. Based on the line graph of non-performing loans, GCB’s efforts at curbing credit risk can best be described as an average effort. This is because, while they have succeeded in reducing non-performing loans in some of the years, in other periods the default rate rises very sharply.
The chapter presented and discussed the findings from the study based on the methodology provided in the previous chapter. The study begun by evaluating the various credit risk strategies of Ghana Commercial Bank Ltd based on interview with credit risk officer. Consequently, trend analysis of total advances and non-performing loans was conducted to assess the extent to which credit risk strategies are achieving the desired results.

4.3 Conclusion

The chapter presented and discussed the findings from the study based on the methodology provided in the previous chapter. The study begun by evaluating the various credit risk strategies of Ghana Commercial Bank Ltd based on interview with credit risk officer. Consequently, trend analysis of total advances and non-performing loans was conducted to assess the extent to which credit risk strategies are achieving the desired results.
5.0 Introduction

This chapter provides a general summary and conclusions from the study, as well as recommendations for policy analysis. At the end of the chapter, limitations of the study and suggestions for further studies are provided.

5.1 Summary of the study

The study evaluated the credit risk management strategies of Ghana Commercial Bank Ltd for the period 2000-2010. The research was an attempt to assess the extent to which the implementation of various credit risk management strategies by the bank has reduced the amount of non-performing loans. The study is very relevant to stakeholders of the banking industry and is being conducted at the time when credit risk management practices and poor credit quality continues to be a dominant cause of bank failures and banking crises worldwide. The literature review revealed that banks recognize the danger posed by credit risk concentrations on their financial performance and as a result have instituted a plethora of sophisticated strategies to tackle the phenomenon. Traditionally, banks have taken an asset-by-asset approach to credit risk management. The approach involves periodically evaluating the credit quality of loans and other credit exposures, applying a credit risk rating, and aggregating the results of this analysis to identify a portfolio’s expected losses. Apart from the traditional asset-to-asset approach to risk
management, the portfolio approach is utilized to complement risk management efforts since the latter relied on a credit model and provides a complete view of portfolio credit risk.

In order to answer the research objectives, the case study approach was employed where face-to-face interview was conducted to collate the views of a senior credit officer at Ghana Commercial Bank Ltd on credit risk management strategies. Besides, information on non-performing loans was obtained from the books of accounts while the researcher also relied on data from GCB annual reports and credit policy documents for the analysis of findings. The results from the study showed that Ghana Commercial Bank has a clear, written guideline on credit risk management with the board of directors having an oversight responsibility for implementation. Though having written guideline on credit risk management is good, the extent to which it is being implemented would determine the bank’s level of success in curbing credit risk.

5.2 Conclusions from the Study

The following conclusions can be drawn from the study:

First, the study revealed that the key credit risk management strategy of Ghana Commercial Bank Ltd is to control its credit processes such that it would result in maximum credit impairment of 1% of the whole credit portfolio in line with credit risk management requirement from Bank of Ghana.
Second, GCB realigns the amount of credit within various sectors grouped into a credit portfolio depending on environmental factors such as political regime, macroeconomic strategy of political regimes, new and existing regulations and legislation, social concerns of operating markets and technological developments within the banking industry in Ghana.

Finally, the study showed that credit allocation by the bank to the Ghanaian economy has been on a rising trend for the last ten years. However, this laudable credit expansion drive is been threatened by increases in non-performing loans.

5.3 Recommendations for Policy Analysis

Based on the above conclusions, the following policy recommendations are suggested. Accompanying these recommendations are proposed areas for further studies.

Ghana Commercial Bank Ltd should work in collaboration with credit reference bureaux in the country to thoroughly investigate the past credit worthiness records of loan applicants so as to reduce the rate of default.

Credit risk monitoring and supervision efforts should be intensified by the bank. The bank should ensure that credit officers perform periodic follow-ups on borrowers to ensure that loans are used for the intended purpose.
The bank should continue to diversify its lending activities and should allocate more funds to the productive sectors of the economy. Private sector businesses should be prioritized and supported accordingly.

The bank should reduce and if possible eliminate political influence in granting of credits to certain political figures and organizations such as Tema Oil Refinery (TOR).

The bank should put in place proper debt collection mechanisms including court action as the last resort.

The bank should also ensure that there is adequate security (collateral) from customers in case they are unable to satisfy their part of the agreement.

Finally GCB should adhere strictly to the loan policies and discourage any human intervention if necessary requirements are not met.

5.4 Limitations of the Study

The following limitations have been identified:

First, it would be difficult to generalized the findings of the study to the banks in Ghana since conclusion were drawn based on data from only Ghana Commercial Bank Ltd. Other banks may have their own way of dealing with credit risk.
Secondly, the study relied heavily on the views of a senior credit officer from Ghana Commercial bank Ltd on credit risk management. However, it may be difficult to completely verify the authenticity of certain claims regarding the bank’s credit risk management since most of the information is confidential.

Despite these challenges, the study shed light on credit risk management strategies of the bank which may be useful to policy makers and business organizations.
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INTERVIEW GUIDE

1. What does the Credit Policy say about the quantum of loans (credit) that should be granted to customers?
   Interviewee response
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2. What Credit Risk Management Strategy is adopted by the bank?
   Interviewee response
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3. What does GCB consider before approving loans to applicants?
   Interviewee response
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4. What are the Credit Risk Monitoring and Supervision mechanisms of the bank?
   Interviewee response
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5. What are the Credit Risk Control measures adopted by the bank?
   Interviewee response
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   ........................................................................................................................................
6. What is the level of Non Performing Loans (NPL) of GCB?  
Interviewee response