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"COMPETITION, GROWTH AND PERFORMANCE IN THE BANKING INDUSTRY IN GHANA."

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background Information

The economy of Ghana witnessed a decline in the late 1970s and the early part of 1980s. The negative performance of the economy significantly affected the banking sector. The banking sector became less competitive; most banks were financially weak, unprofitable, and illiquid and technologically bankrupt (Anim 2000).

The Government of Ghana launched the Economic Recovery Programme (ERP) in April 1983 with the aim of liberalizing the economy from controls in order to enhance productivity. The economy witnessed some stabilisation between 1984-1986. It was however, felt that for the programme to achieve the desired results there should be a dynamic financial sector to facilitate the payment system and enhance the allocation of resources. Financial Sector Adjustment Programme (FINSAP) was embarked upon in 1988 to address the weaknesses in the banking industry: low competition, weak financials, low profitability as a result of high non-performing loan assets, less liquidity, low capital base, and low level of technology (Anim 2000).

Banks in Ghana have therefore undergone restructuring during 1988-92. There have been some improvements in the restructuring. Profitability has soared in recent years with return on equity (ROE) between 16% and 24%, averaging 20% over the last 16 years. Capital adequacy ratios have seen improvement outpaced the

statutory requirement of 10%. In real terms, bad debts have been falling, and the problem of non-performing assets seems to have been tackled.

It could however be argued that all is not well with the banking industry. The high profitability could be said to owe less to efficiency and competitiveness than to the structure of the industry that enables most banks to reap supernormal profits (Ziorklui and Gockel, 2000). Also, a carefully review of the balance sheets of banks in Ghana suggests that the banks in Ghana have generated extra returns by taking greater risks.

Another dimension is whether or not size matter for performance of banks. Evidence in Ghana seems to suggest that small/medium banks like The Trust Bank and Ecobank are more profitable than big banks like Ghana Commercial bank (the largest bank in Ghana) and Agricultural Development Bank (ADB). In the real world size is a hot issue but according to Gibrat's law size does not matter (Gibrat, 1931). Alhadeff and Alhadeff (1964) also found the top 200 banks in the US grew more slowly than the total did. Rhoades and Yeats (1974) replicated this study for the period 1960-71 and they too found that the largest banks grew less than the system as a whole. Schotens (2000) also found bank profits are inversely related to the amount of bank assets and positively related with the amount of tier-one bank capital.

Therefore after sixteen years of implementation of financial reforms, what is the scorecard particularly on banks in Ghana?

1.2 Problem Statement

FINSAP has been implemented over the last 16 years. The questions we will like to ask are:

1. Is the banking sector in Ghana becoming more Competitive, efficient and profitable?
2. Are competitive markets more efficient?
3. Are competitive banks more profitable?
4. Does size matter for profitability? and
5. What are the strategic implications for individual banks and the banking industry in general?

1.3 Objectives of the study

The general objective of the study is to analyse competition, growth and performance in the banking industry in Ghana. The specific objectives of the study include:

- To analyse the relationship between market structure and the performance of the banking industry in Ghana;
- To test whether size matters for individual banks' profit performance;
- To analyse the relationship between competition, efficiency and profitability; and
- To provide strategic lessons for individual banks and banking industry as a whole.

1.4 Hypothesis Testing

The study tested the following hypothesis:

H_1: The profit growth of banks is not related to their size

H_2: The profit growth of banks is related to their size

The hypothesis is be tested at 5% level of significance (95% confidence level)

1.5 Justification of the research.

The functions of the banking system including providing payments and settlements systems, mechanism for borrowing and lending, and pooling and allocation of funds, among others impinge on all aspects of the economy and are central to the overall performance of the economy. The efficacy of the financial systems in performing these functions is a major ingredient of the efficacy of the economy as a whole. Given the pivotal role of banking in an economy, the role of competition in this industry is particularly important.

Survival in today competitive environment depends on performance and growth. Competition has implications for efficiency, innovation, pricing, and availability of choice, consumer welfare, and the allocation of resources in the economy. If competition is weak, these advantages may be lost and there is likely to be a transfer of welfare from consumers to both the producers of goods and services and the shareholders of these firms.

Though there have been several studies on the impact of financial sector reforms (FINSAP) on banks in Ghana, none of them address the issue of competition, growth and performance. This study notes the absence of empirical inquiry into the

effects of competition, growth and performance in the banking industry in Ghana. The concentration of banks deposits in a few commercial banks (Ghana Commercial Bank, Barclays Bank, Standard Chartered Bank and Ecobank accounts for over 60% of industry deposits) has policy implications for the direction of the banking sector. Evidence of a positive relationship between market structure and profitability in the Ghanaian baking industry will direct policy makers at changing market structures to increase competition. This study therefore will be a pioneering work on the effect of FINSAP on competition, growth and performance in the banking industry in Ghana.

The major limitation of the study is the inability to include the pre-FINSAP period due scarcity of data.

1.6 Methodology

The general objective of the study is to analyse competition, growth and performance in the banking industry in Ghana. The specific objectives of the study are: to find out the level of competition in the banking industry in Ghana, to analyse how concentration in the banking industry is related to bank profitability, to analyse how bank size affects the profits of banks in Ghana.

Based on these objectives, we hypothesize as follows:

H1: The profit growth of banks is not related to the size

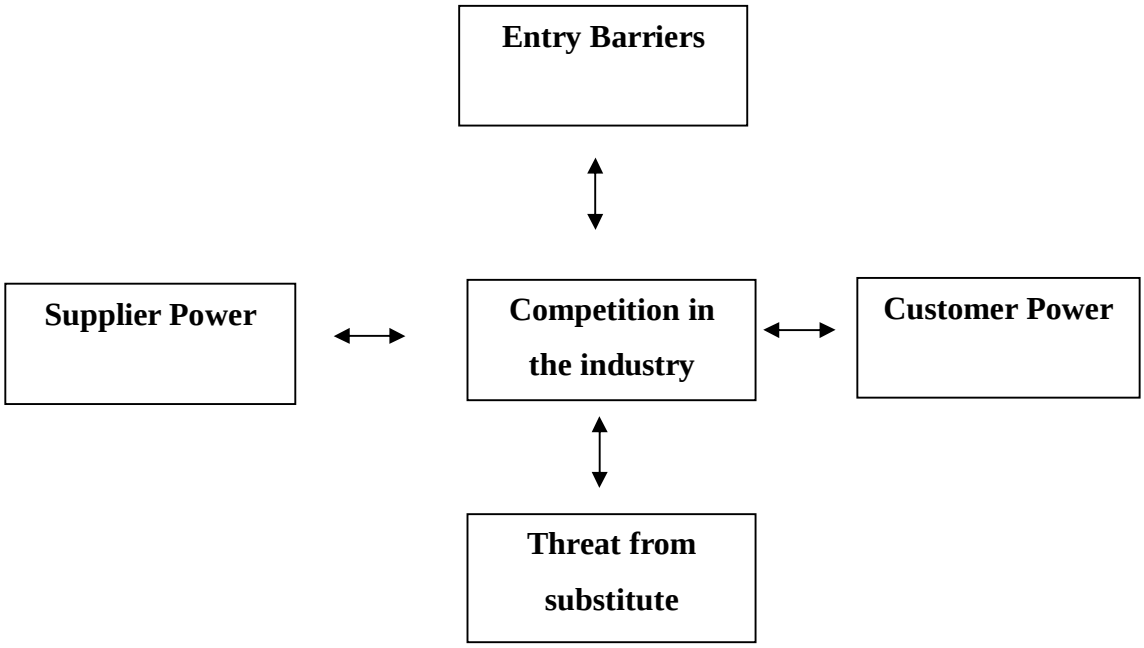
H2: The profit of banks is related to their size.

To achieve the above objectives we made use of the following methods:

1.6.1 Testing Levels of Competition in the Ghanaian Banking Industry

According to Porter's 5 Forces Model, the level of competition in an industry is determined by the interaction of five main forces: existing competitive rivalry between suppliers, supplier power, customer power, entry barriers, and threat from substitute products. Porter's 5 forces framework is depicted in Fig 1 below.

Fig 1: Porter's 5 Forces Model



The banking industry in Ghana has undergone a lot of transformation over the past two decades due to policies implemented under the financial sector reforms. The number of banks has increased due to easy entry and exit. This has resulted in the diminishing of supplier power while customer power has increased due to increasing customer sophistication and knowledge as well as more banks available to customers to decide which bank to do business with. The industry has also witnessed increasing innovation and the threat from substitute products is eminent.

Thus according to Porter's 5 forces model, one would expect competition in the industry to heighten.

1.6.1.1 K-Concentration Ratio

K-Concentration ratio is the percentage of the total market share of the four (4) largest banks i.e. the proportion of market share accounted for by top k number of banks. For example in 2005 the total market share of four largest banks in Ghana- Ghana Commercial Bank, Barclays Bank Ghana, Standard Chartered Bank and Ecobank Ghana constituted 56.2%. This means that the four largest banks mobilised 56% of the total industry deposits. Theoretically, industries in which the concentration ratio is under 50% are considered effectively competitive. Industries in which the concentration ratio is at least 50% but less than 70% as the case of Ghana, the industry is considered as weak oligopolies (the other seventeen banks still command 43.8% and a situation where the ratio is more than 70% are considered as strong oligopolies. Stronger means that the banks in the industry have a greater ability to influence the price.

The second issue after the incidence of competition is to ascertain the intensity of competition. Competition often intensifies with the entry of new entrants or suppliers into a market that is not expanding proportionately. The market concentration shows how competitive an industry is. If a market is very competitive we expect the concentration ratio to be low as participants strive to acquire a sizeable share of the market thus leading to efficiency.

1.6.1.2 Herfindahl- Hirschman Indexes from 1989-2005 (HHI)

Competition arises where two or more providers of services/goods offer their products, as substitutes, to buyers in the same market (Korsah et al, 2001). According to them, competition can be researched from various angles. First it is important to establish the incidence of competition i.e. is there competition in the banking industry in Ghana? A market with several suppliers makes collusion (anti-competitive behaviour) difficult to enforce (Korsah et al, 2001). To them (quoting Oster, 1995), where firms are similar in size, competition increases because none of them can dictate the market. Therefore Herfindahl-Hirschman Index (HHI) is a concentration measure that can be used as a tool for assessing the incidence of competition. The Herfindahl-Hirschman Index (HHI) is calculated as the sum of the squared market shares of all banks in the sector. That is

$$HHI=\sum_{1=i}^{k} kMS_i^2,$$

Where, MSi is the bank's market share and k represents the number of banks in the banking industry.

In the case of a monopoly, when one firm has 100 percent of the market share, the HHI will be equal to 10,000, which is the upper bound. The lower bound of zero is attained when the market is perfectly competitive. Therefore, the larger the HHI, the more concentrated the market becomes, since fewer firms control more of the market. A market with HHI in excess of 1800 is generally considered as highly concentrated and adverse effects can be presumed. However, the relationship between concentration and market structure has been an area of considerable debate among the structuralists. The discourse is centred on two competing hypothesis: the

"structure-conduct performance" (SCP) hypothesis and the "contestability" hypothesis.

1.6.1 Non-Structural approach-Panzar and Ross

The study will employ the model developed by Panzar and Ross (PR) (1982 and 1987). Their model uses individual bank data to estimate a reduced-form revenue equation. The nature of competition in the banking sector is evaluated using the H-statistic-the sum of the factor price elasticities from the estimation.

The **H-statistic** can be used to identify the three major market structures, namely, monopoly/perfect collusion, monopolistic competition and perfect competition/contestable market. Conclusions about the type of market structure are made based on the size and sign of the H-statistic. The intuition behind the H-statistic rests solely on microeconomic theory, which outlines how revenues react to changes in input prices for the different market structures. Basically, an increase in costs will reduce revenues for a firm enjoying monopoly power, but increase that of a firm in a perfectly competitive market, proportionately. Therefore, it is expected that a perfectly competitive market will have an H-statistic equal to one, while the monopolist will have a negative H-statistic. The monopolistically competitive market should have an H-statistic that lies between zero and one. A summary of the testable hypotheses of the different market structures is presented below:

H-statistic	**Hypotheses**
$H = 1$	Perfect competition or in a contestable market
$0<H<1$	Monopolistic competition
$H\leq 0$	Monopoly or collusion

1.6.2 Concentration and Performance

To test the relationship between concentration and performance, we will use Spearman's Rank Correlation Matrix. For the performance measure we will use return on equity (ROE) and return on assets (ROA). The 5-bank deposit market concentration will be used as the concentration measure.

1.6.4 Bank Size and Performance

1.6.4.1 Regression Analysis

Alhadeff and Alhadeff (1964) compared the growth of the top 200 banks in the US over the period 1930-60 to the growth of total bank assets. They found that the top 200 banks grew more slowly than the total did. Within the top 200, the bottom segment grew more rapidly than the top, but showed greater variance in growth rates. Rhoades and Yeats (1984) replicated this study for the period 1960-71. They too found that the largest banks grew less than the system as a whole. This points to de-concentration in banking. Scholtens (2000) also confirms that profit growth is inversely related to size when bank size is measured by assets. Scholtens (2000) findings saw profit growth positively correlated with equity. His findings indicated the utmost importance of bank soundness, rather than asset size, for sustainable bank performance.

In this research work the study will follow the same hypothesis of Scholtens (2000) for the banking industry in Ghana as we want to find out whether profit (performance of banks in Ghana) is related to bank size. Our hypothesis therefore will be:

H_1: The profit growth of banks is not related to the size

H_2: The profit of banks is related to their size.

1.6.4.2 Data

The data cover the period from 1988 to 2005. The main data sources are the annual reports and accounts for the financial institutions particularly the 21 major banks in Ghana. The financial sector reforms in Ghana started in 1998. This is why we decided to use the period 1988 to 2005. The pre reforms period data is scarcely available. These financial institutions are Ghana commercial Bank, Barclays Bank of Ghana, Standard Chartered Bank Ghana, Merchant Bank Ghana, Ecobank Ghana, Agricultural Development Bank, National Investment Bank, SG-SSB Bank, CAL Bank, The Trust Bank, Amalgamated Bank, Prudential Bank, Stanbic Bank Ghana, Unibank Limited, First Atlantic Merchant Bank, Home Finance Company Bank, Standard Trust Bank Ghana, International Commercial Bank and Metropolitan and Allied Bank.

With respect to the characteristics that might affect profit growth (GPAT) with a bank, we investigate bank assets and bank capital (equity or shareholders fund which indicates the strength of a bank). Bank assets are the traditional size indicator of a bank and this forms the basis of our hypothesis while the equity indicates the strength of a bank. We calculated the growth rates of assets and equity during 1988-2005.

We estimate the following growth equation based on other studies (Alhadeff and Alhadeff, 1964; Rhoades and Yeats, 1974; Tschoegl, 1983; Akhaveln et.al, 1977 and Scholtens, 2000).

$$\pi = \beta_0 + \beta_1 (\mathbf{GASSET}) + \beta_2 (\mathbf{GEQUITY}) + \varepsilon_t$$

Where

π = Growth in Profit after tax of banks.

GASSET = Growth in bank assets. The basic assumption is that being big is a relative advantage that might result in a further rise in profit. On the other hand we have to do with basic statistic property of large numbers in that the growth rate declines with size. Therefore we expect to find profit growth to become smaller with a bigger size of the bank as measured by the amount of assets. Thus, with bank profits and bank assets, it is clear that H_1 tends to be confirmed, whereas H_2 is not. This might either be due to decreasing economies of scale or simply results from basic statistical properties of large numbers. Therefore the relationship may be positive, reflecting economies of scale, or negative, reflecting greater ability to diversify assets, which results in lower risk and lower required return ($\beta_3>0$ *or* $\beta_3<0$).

GEQUITY = Growth in networth. *We expect profit growth increases with the growth in equity (size of tier-one capital). This implies that healthier banks report better profit performance than banks that are less endowed with tier-one capital hence the expected sign* $\beta 2>0$. Furthermore, the result leads to the confirmation of H_2, whereas H_1 is not confirmed.

1.6.5 CAMEL Framework

This study will use the CAMEL approach to analyse capitalization, asset quality, solvency, profitability, efficiency and liquidity in the banking industry;

Where C=capital adequacy, A=Asset Quality, M=Management Efficiency, E=Earnings/profitability and L=Liquidity. (Bank of Ghana's uses this approach to measure soundness, asset quality, efficiency, solvency, profitability and liquidity of Banks in Ghana).

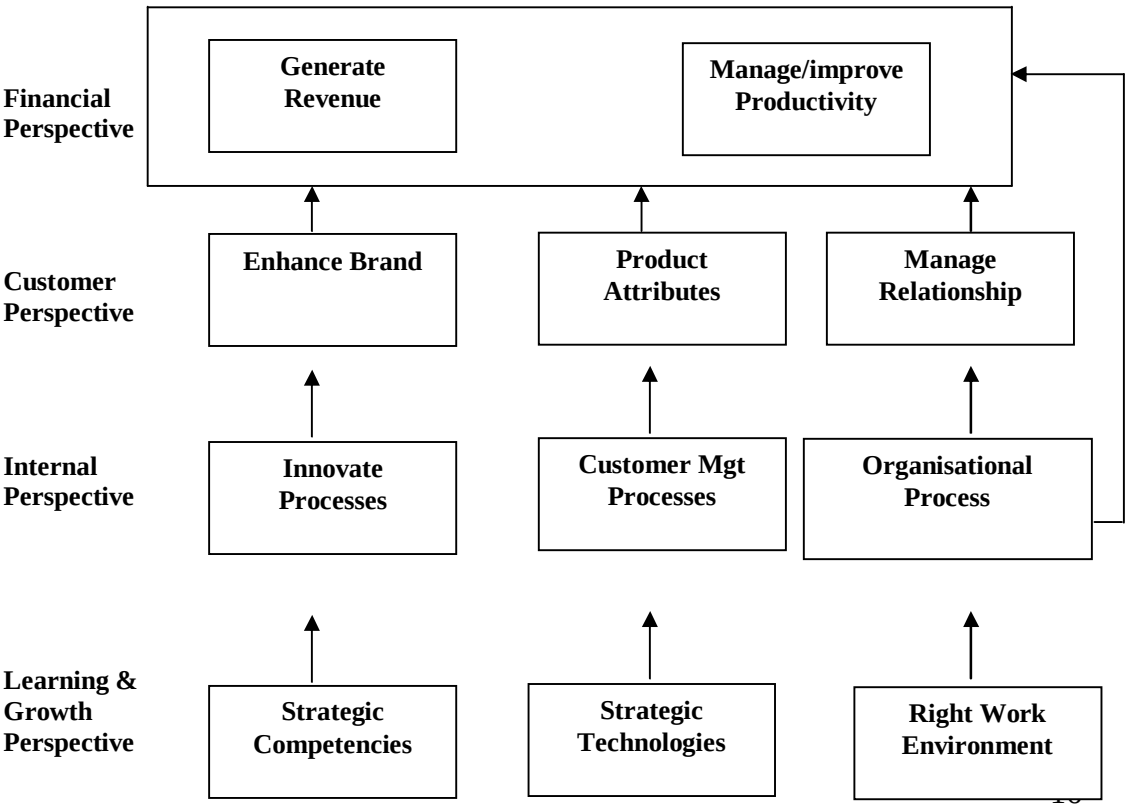
1.6.6 Framework for SWOT Analysis

We will use two frameworks for SWOT analysis-The Balanced Score Card and PESTEL. The Balanced Score Card looks at internal factors -strengths and weakness while the PESTEL framework looks at external factors-opportunities and Threat.

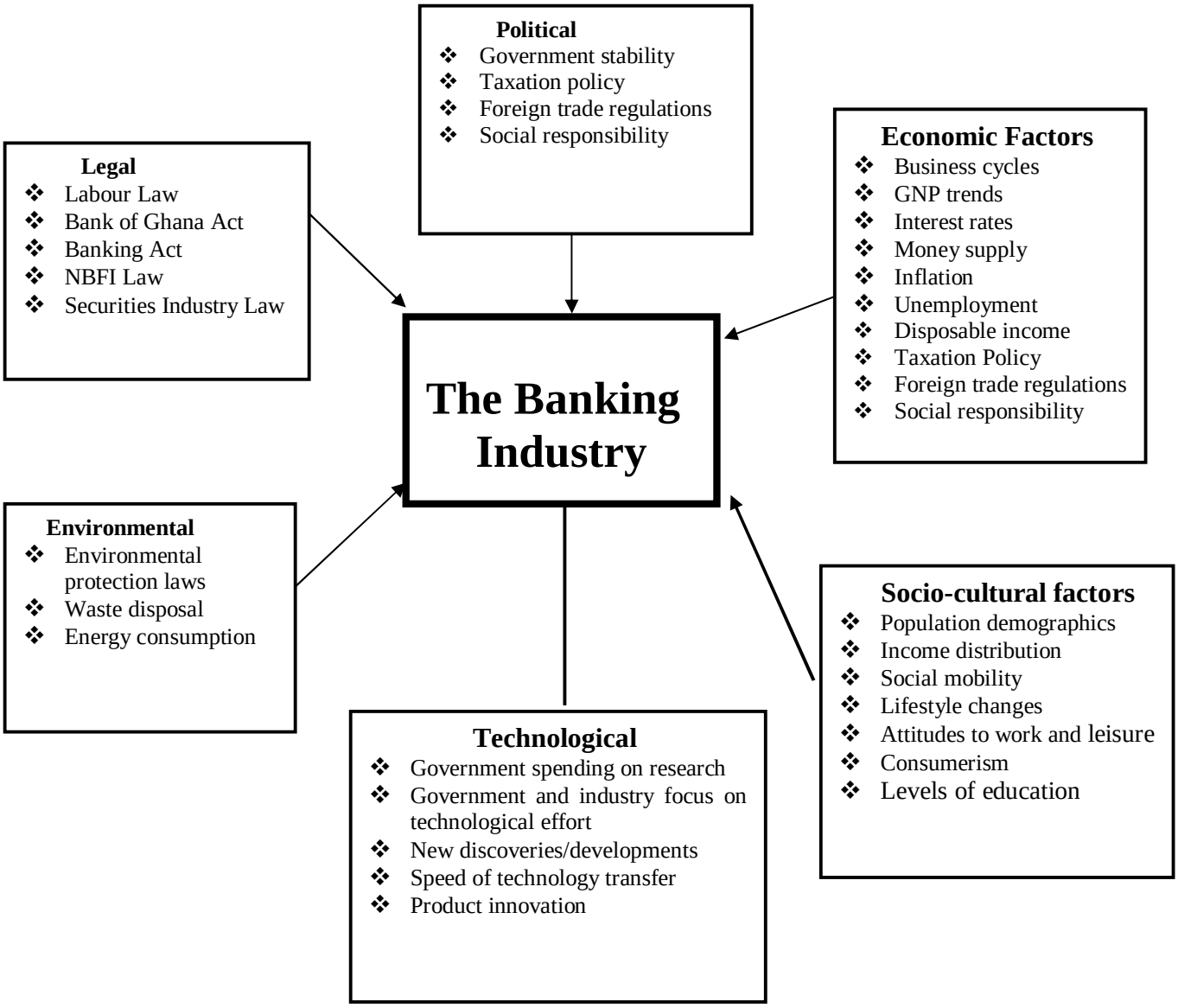
1.6.6.1 Balanced scorecard

The balanced-score card looks at the relationship between strategy and performance. This framework will be used for bank's specific strategy as depicted below.

The Balanced Score Card



1.6.6.2 Macro-environmental influences – the PESTEL Framework



1.7 Organisation of work

This study will be divided into five (5) chapters. Chapter one looks at introduction, statement of the problem, objectives of study, justification and organisation of the study. Chapter looks at the literature review. This chapter includes definitions, objectives and general terms used in this study. Chapter three looks at the overview of the banking industry. This chapter looks at the External factors that influenced the banking industry (PEST) during the study period between 1988 to 2005. It also

includes the SWOT analysis of banks in Ghana. Chapter four presents the analysis relating to the various methods used for this study. It presents measurement of competitiveness (e.g. CAMEL) of banks in Ghana. The study covers the period 1988 -2005 (Note FINSAP started in Ghana in 1988). The final chapter (five) looks at conclusion and recommendations. It is followed by Bibliography, Reference and appendices.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Theoretical Review

There is a vast academic literature on the measurement of competition in the banking sector. Currently, there are two major approaches that may be used to evaluate the level of market power within a particular sector. The approaches differ according to whether the underlying model of the sector is structural or non-structural.

The structural approach uses concentration measures or ratios to form hypotheses about the relationship between concentration and market structure. The k-Concentration Ratio (CR_k) sums up the market shares (MS) of the k biggest banks in the industry.

$$CR_k = \sum_{1=i}^{k} kMS_i,$$

Where MSi is the bank's market share of k biggest banks in the market.

Theoretically, industries in which the concentration ratio is under 50% are considered effectively competitive. Industries in which the concentration ratio is at least 50% but less than 70% as the case of Ghana, the industry is considered as weak oligopolies (the other seventeen banks still command 43.8% and a situation where the ratio is more than 70% are considered as strong oligopolies. Stronger means that the banks in the industry have a greater ability to influence the price.

The Herfindahl-Hirschman Index (HHI) on the other hand, is calculated as the sum of the squared market shares of all banks in the sector. That is

$$HHI = \sum_{1=i}^{k} kMS^{2}_{i,}$$

Where MS_i is the bank's market share and k represents the number of banks in the banking industry.

In the case of a monopoly, when one firm has 100 percent of the market share, the HHI will be equal to 10,000, which is the upper bound. The lower bound of zero is attained when the market is perfectly competitive. Therefore, the larger the HHI, the more concentrated the market becomes, since fewer firms control more of the market. However, the relationship between concentration and market structure has been an area of considerable debate among the structuralists. The discourse is centred on two competing hypothesis: the "structure-conduct performance" (SCP) hypothesis and the "contestability" hypothesis.

The SCP hypothesis asserts that there is a non-linear increasing relationship between concentration and market power. That is, as the market becomes more concentrated, the firms tend to collude and act as a monopoly in setting prices above the competitive level. This implies that there is inverse relationship between concentration and consumer welfare. Thus, the collusion hypothesis postulates that market structure influences conduct/behaviour of firms through, for instance, pricing and investment policies, and this in turn translates into performance. The ultimate theoretical implication of the SCP hypothesis is that in concentrated markets prices will be less favourable to consumers because of non-competitive behaviour that arises in such market.

Although the SCP hypothesis is widely used in the manufacturing sector, in recent times the model has been used in the banking industry. As Civilek and Al-Alami (1991) rightly noted, the banking industry is very important to the economy and empirical evidence on the SCP relationship can help in government regulatory policies and in modifying the environment in which banks operate. Increased bank concentration, by increasing the cost of credit, has the effect of reducing firms' demand for credit and consequently affects the level of intermediation and retards economic growth.

Alternatively, the contestability hypothesis suggests that even in the face of increased concentration, incumbent banks may still behave competitively once there exist a potential free entrant who can offer similar services at lower costs. The contestability hypothesis thus postulates that market concentration is a result of firms' superior efficiency, which leads to larger market share and profitability.

There is no consensus on the relationship between concentration and market power. While Berger and Hannan (1989) found evidence to support the SCP paradigm, Jackson (1992) found the relationship to be the non-monotonic and even negative for high levels of concentration, which contradicts the SCP. Furthermore, other studies have been inconclusive and have also been refuted on technical grounds (Shaffer, 1993).

Apart from the ambiguity surrounding the HHI theory, there are additional areas of concern. One important shortcoming is that while the index accounts for the number of Banks and their market share, it does not consider the distribution of the shares as well as the geographical location of the banks. This makes comparisons

with other countries difficult, as two countries could have the same HHI but different market structures due to the distribution of market shares.

The SCP paradigm can tabulated as follows:

SCP Paradigm	***Contestability/Efficiency Hypothesis***
1. The SCP hypotheses that a highly concentrated market causes collusive behaviour among larger firms	1. Contestability suggests that even in the face of increasing concentration, incumbent banks may still behave competitively once there is a free entrant who can offer similar services at lower costs.
2. Concentration promotes collusion and which works against the interest/welfare of consumers	2. Concentration is the result of superior efficiency leading to higher market share and profitability. Consumer welfare is enhanced.
3. The Collusion of larger firms leads to superior performance (high profitability).	Efficiency of larger firms enhances performance
4. The issue of efficiency was not considered in this paradigm-i.e. profitability is the result of collusion of larger firms	4. Efficiency is the source of profitability

The inability of the structuralists to clearly define the relationship between concentration and market power has prompted the search for non-structural models by the 'New Empirical Industrial Organisation' (NEIO). These models, which include those of Bresnahan (1982) and Penzar and Rosse (P-R) (1982 and 1987), do not rely on explicit information about market structure in order to determine the level of competition.

The Bresnahan methodology is executed by using a simultaneous equation model to estimate a system of equations involving the supply and demand functions as well as price equation. From the estimation, an index measuring the extent of firms'

market power is developed. Using this methodology, Shaffer (1993) rejected the hypothesis of monopoly/collusion in favour of perfect competition in the Canadian banking sector, while Nakane (2001) found the Brazilian banking sector to be highly, though not perfectly competitive.

The **P-R model** provides a very simple approach to test the market structure of an industry for competitiveness. Inferences are made based on the "H-statistic", which is calculated as the sum of the factor price elasticities estimated from a reduced-form revenue function. Use of the reduced-form revenue equation eliminates the problem usually encountered when trying to obtain supply side information. This is due to the fact that revenues are more likely to be recorded than the cost data necessary to execute the Bresnahan approach. Additionally, the Bresnahan approach relies on aggregated data, and thus, does not account for bank heterogeneity. Alternatively, when individual bank data are available, the P-R approach may be preferred.

The **H-statistic** can be used to identify the three major market structures, namely, monopoly/perfect collusion, monopolistic competition and perfect competition/contestable market. Conclusions about the type of market structure are made based on the size and sign of the H-statistic. The intuition behind the H-statistic rests solely on microeconomic theory, which outlines how revenues react to changes in input prices for the different market structures. Basically, an increase in costs will reduce revenues for a firm enjoying monopoly power, but increase that of a firm in a perfectly competitive market, proportionately. Therefore, it is expected that a perfectly competitive market will have an H-statistic equal to one, while the monopolist will have a negative H-statistic. The monopolistically competitive

market should have an H-statistic that lies between zero and one. A summary of the testable hypotheses of the different market structures is presented below:

H-statistic	Hypotheses
H = 1	Perfect competition or in a contestable market
0<H<1	Monopolistic competition
H≤0	Monopoly or collusion

An important advantage of the non-structuralist models is that they usually yield similar results when applied. This is due primarily to the fact that they have clearly defined hypotheses with specific interpretations. Therefore, there is little or no room for ambiguity as is the case with the structuralists that have three potential explanations for the one relationship. The use of the P-R model in particular clarifies this ambiguity since it has clearly defined hypothesis to distinguish one market structure from another.

In applying the P-R model**,** it is crucial to clearly define the production activity of the bank since they are not exactly comparable to other types of firms. The current literature presents two alternative approaches – the "production approach" and the "intermediation approach"- that can be taken in empirical work.

2.2 Empirical Literature: - Determinants of Bank Profitability

Several variables are used as determinants of bank profitability in SCP studies in the banking industry. We can essentially divide bank studies into two groups based on the variables used to measure bank performance as a dependent variable. On the one hand and in most studies, bank performance is measured by the level of

profitability. The profitability measures include the rate of return on equity (ROE), rate of return on capital (ROC) and the rate of return on assets (ROA). In most bank studies, emphasis is placed on measuring profitability in terms of ROC and ROA.

Smirlock (1985) notes that the use of ROA has provided strongest evidence on the concentration-profitability relationship in banking. Keeton and Matsunaga ((1985) assert that ROA is especially useful in measuring changes in bank performance over time since banks' income and expense components are more closely related to assets. Several studies of the structure-performance hypothesis in the banking system have used both ROA and ROE (Civelek and Al-Alami, 1991; Agu, 1992) and Smirlock (1985) used all the three measures.

However, Civelek and Al-Alami (1991) found results based on ROA to be statistically very inferior and justified the relative performance of ROE on the basis that it reflects the efforts of managers interested in maximizing shareholders' wealth. However, other studies have used ROA as a measure of profitability in testing the SCP hypothesis in banking (Nolyneux and Forbes, 1995; Evanoff and Fortier, 1988). The basic argument in favour of profitability measures in banking is that banks are essentially multi-product firms and the use of profitability measures eliminates problems associated with cross-subsidization between products and services.

Alternatively, other researchers assess the performance in terms of bank prices (Berger and Hannan, 1989; Rose and Fraser, 1976). The justification for use of bank prices (interest rates) has been that the use of the price-concentration relationship instead of the profit-concentration relationship tests the structure

performance hypothesis in a way that excludes the efficient structure hypothesis (Berger and Hannan, 1989). The main argument in the price-concentration relationship is that high levels of concentration allow for non-competitive behaviour that results in lower interest rates offered to depositors and/or higher lending rates to borrowers. However, Molyneux and Forbes (1995) argued that price measures of performance create problems of cross-subsidization for a multi-product firm. Besides, the use of prices does not take into account the effect of costs (Morris, 1984). Whatever the measure of performance, empirical results on the structure-performance hypothesis are also mixed and the performance of the model in the banking system is weaker than in manufacturing.

At the centre of the traditional SCP hypothesis is the argument that market concentration is a determinant of profitability. Concentration, defined as the extent to which most of the market's output is produced by a few firms in the industry forms the basis for the explicit link between market structure and performance through firms' conduct (Bain, 1951; Scherer and Ross, 1990). The definition of concentration in terms of output poses empirical problems in the banking industry because of its multi-product nature, although the main products are loan-making and deposit-taking services (Morris, 1985). However, since deposit data are readily available, bank output is usually measured by total deposits. Competition theorists argue that firms in highly concentrated industries refrain from competing among themselves and might also refrain from raising deposit rates or lowering lending rates (Morris, 1984). This would result in higher than average profitability. The traditional expectation is that higher concentration leads to higher and monopolistic performance.

There are several measures of market concentration, but the most common measures in both industrial and banking studies have been the concentration ratio (CR) and the Herfindahl-Hirschman index (HHI) (Scherer and Ross, 1990; Morris, 1984; Civelek and Al-Alami, 1991; Agu, 1992). As Berger and Hannan (1989) point out, theory provides little guidance on the measure of monopoly power when the type of noncompetitive behaviour is unknown. Results from empirical studies on the performance of concentration in banking are mixed. Civelek and Al-Alami (1991) find a statistically significant relationship between concentration and performance in most years with perverse signs in some years in the Jordanian banking system, while Molyneux and Forbes (1995) find overwhelming evidence of a significant positive relationship between concentration and profitability. On the other hand, Agu (1992) finds no significant statistical relationship between concentration and profitability. Where the market variable is included in the model, the concentration ratio fares poorly and the results tend to support the efficient market hypothesis (Evanoff and Fortier, 1988; Smirlock, 1985).

The main variable in the efficient market hypothesis is the efficiency of firms that can be proxied by market share (MS). Market share of industry deposit can be used to test the alternative hypothesis of efficient market. We expect a positive relationship between market share and profitability. Larger market shares are a result of efficiency that in turn leads to higher profitability.

Several control variables that take into account firm-specific and market-specific characteristics are theoretically justified and included in empirical studies of the banking industry. One of the variables is bank size. Bank size is measured as banks total deposits or assets or as an average measure based on total assets (Civelek and

Al-Alami, 1991; Molyneux and Forbes, 1995; Smirlock, 1985; Evanoff and Fortier, 1988). The bank size variable takes into account differences brought about by size such as economies of scale. We expect that larger banks compared with smaller banks' can reap economies of scale and have greater diversification opportunities. However, according to Evanoff and Fortier (1988) and Smirlock (1985) any positive influence on profits from economies of scale may be partially offset by greater ability to diversify assets resulting in a lower risk and a lower required return. Therefore, the impact of bank size, a priori, is indeterminate. The empirical results on the performance of bank size variable are mixed, with conclusions of no economies of scale (Civelek and Al-Alami, 1991; Molyneux and Forbes, 1995) and others having significant positive (Evanoff and Fortier, 1988) and negative (Smirlock, 1985) relationships.

Since profit measures are usually not adjusted, the capital-asset ratio (CAPAST) is included to account for differences in levels of risk between firms. Lower CAPAST is associated with high risk. We postulate a negative relationship between capital-asset ratio and profitability performance. However, as a measure of risk, the capital-asset ratio also produces perverse sign although it is statistically significant (Molyneux and Forbes, 1985). Envanoff and Fortier (1988) found a significant negative relationship between return on assets and capital-asset ratio.

Another measure of risk included is the loan-asset (LTOAST). The loan-asset ratio is traditionally included in the model to capture bank-specific risk. Portfolio theory postulates that risky investments are usually associated with higher returns than primary assets. The loan-asset ratio is expected to be positively correlated with bank profitability. Empirically, this measure of bank risk has produced perverse

results, suggesting that there is reduction behaviour among bank managers (Civelek and Al-Alami, 1991; Molyneux and Forbes, 1995; Evanoff and Fortier, 1988). Agu (1992) also found a negative and weak statistical association between the loan-deposit ratio and profitability in the Nigerian banking system.

The bank's relative cost of funds is captured by ratio of demand deposits to total deposits (DDTDEP). Demand deposits are a relatively inexpensive source of funds. We expect that the higher the ratio of demand deposits to total deposits, the higher the level of profitability. Evanoff and Fortier (1988) and Smirlock (1985) found a significant and positive relationship between the ratio of demand deposits to total deposits and bank profitability.

Other variables are included to account for market demand characteristics. These include market size and market growth rate. Market size is measured by total market deposits (MKDEP). Large markets should be easy to enter and bank customers in such markets tend to be sophisticated, hence a negative relationship between market size and profitability. However, as noted by Evanoff and Fortier (1988) and Smirlock (1985), this negative relationship may be partially offset if banks in these markets take on riskier portfolios requiring higher returns. The relationship between market size and bank profitability may be either positive or negative. The growth of the market (MKGRO) is included because rapid market growth expands profit opportunities for existing banks, but if growth encourages entry then a negative relationship may be observed. Civelek and Al-Alami (1991) have argued that larger market size or an expanding market enables banks to differentiate their products and consequently generate higher profits.

In summary, the SCP hypothesis has now been widely used in the analysis of bank markets and there exists evidence in support of the structure-performance hypothesis, although the competing efficient market hypothesis is also gaining empirical support. The overall evidence suggests that high market concentration may be an institutional feature that limits savings mobilisation and intermediation. Alternatively, the efficient market hypothesis asserts that market concentration results from firms' ability to secure larger market shares because of their efficiency.

2.3 Summary of Overview of literature -Measuring Competition in the Banking Industry

2.3.1 Structural Approaches – SCP Paradigm

Structural approaches are based on the SCP paradigm. SCP is short for "Structural Conduct Performance". The SCP paradigm posits a relationship between market structure, firm conduct and market performance. It says that in the highly concentrated markets with a small number of large, dominant firms it is easy for these firms to collude and raise profit to levels not compatible with perfect competition. (Recall that in perfect competition new firms enter the markets as long as economic profits are greater than zero. Thus, in the long run equilibrium prices equal marginal cost).

Hence, the SCP paradigm assumes that the degree of competition is an inverse function of concentration.

2.3.1.1 Concentration Measures

In order to be able to assess competition we thus have to measure concentration, which is, however, much easier than measuring competition.

To be in the position to understand the two concentration indices most commonly used in the SCP context, we need the following notation: the number of firms in the market is denoted by n, the market share of firm i is denoted by si, the arithmetic mean of market shares is denoted by s, and the standard deviation of market shares is defined by:

$$\sigma = \sqrt{\frac{1}{n}\sum_{i=1}^{n}(s_i - \bar{s})^2} = \sqrt{\frac{1}{n}\sum_{i=1}^{n} s_i^2 - \bar{s}^2}$$

- The k – firm concentration ratio (CR_k) sums up the market shares of the k biggest firms in the markets:

$$CR_k := \sum_{I=1}^{k} s_i \text{ Where } s_i > s_j \text{ for } i<j$$

- The Herfindahl-Hirschman index (*HHI*) sums up the squared markets shares of all firms in the market:

$$HHI := \sum_{i=1}^{n} s_i^2$$

Another concentration measure (or rather variation measure) is the variation coefficient (VC), which relates the standard deviation of the market shares to their arithmetic mean: $VC := \frac{\sigma}{\bar{s}}$. We have the following relationship between HHI and VC: $HHI = (VC^2 + 1)/n$.

Comments

The SCP is challenged by the following facts and theories:

1. The efficiency hypothesis states that high concentration and market power are the consequences of some outperforming firms being more efficient than their rivals
2. The contestability hypothesis assumes that in a market with low exit and entry barriers (contestable markets), even if there is just a small number of firms, these firms are prevented from gaining economic profits because they perceive the constant threat of the entry of potential rivals into the market.
3. Finally empirical clearly supporting the SCP paradigm is scarce.

2.3.2 Non – Structural Approaches

The conjectural variation model

Markups

In basic microeconomic theory competition is characterize by the markup firms charge on marginal cost. This markup is measured by the Lerner index.

$$L: = \frac{P - c'}{P}$$

Where P denotes prices and c' is marginal cost. (In perfect competition c' = P and thus L = 0). However, data availability usually (and particularly in banking) does not allow to calculate the Lerner index. This is why T. Bresnahan (among others) has introduced a conduct parameter, the conjectural variations parameter (CV), which captures the perceived inter-dependence of firms with their rivals and which can econometrically be estimated. The concept is formally developed out of the first – order condition of profit maximizing oligopolist.

CV definition

The CV and the normed CV will be denoted by λ_i*, respectively. They defined as follows:

$$\lambda_i := \frac{dX}{dx_i} = 1 + \frac{d\sum_{j \neq i} x_j}{dx_i} \quad \text{and} \quad \lambda_i^* := \frac{1}{n}\lambda_i$$

Where *xi* denotes the output of the i-th firm, *X* denotes industry output, and n is the number of firms.

CV Interpretation

The CV has three equivalent interpretations:

It represents the conjectured degree of output change of the competitors if bank i changes its output.

It indicates how much of the monopoly markup (which equals inverse elasticity) is actually charged by the players of the observed market.

Alternatively, λi* can be interpreted as an elasticity adjusted Lerner index.

CV Implication

The following table shows the implication of the different values of the CV:

Conjectural variation parameters		
$\lambda_i^* = 1$	$\lambda_i = n$	Monopoly or perfect competition
$\lambda_i^* = \frac{1}{n}$	$\lambda_i = 1$	Cournot oligopoly
$\lambda_i^* = 0$	$\lambda_i = 0$	Perfect competition

Economic intuition:

Monopoly or perfect collusion: Each player wants to maintain its market share 1/n. Hence, an output increase by player i will cause a proportional increase in output of each "partners". Thus industry output X increase proportionally and dX/dxi = n.

A Cournot oligopolist assumes by definition that the other players will not change their output if he increases his own output. Hence, $d\sum j \neq i xj / dxi = 0$.

In perfect competition, price (= marginal cost) and thus (by the industry demand function) industry output are exogenous to every one firm. Hence, dX/dxi = 0.

CV derivation

We will now give the formal derivation of the CV parameter from the comparative statics of a profit maximizing Cournot oligopolist.

Let us assume n banks in an oligopolistic market supplying one homogenous product. Then, the profit of the bank i is given by:

$$\pi i = P(X, EXD)\, xi - ci(xi, EXsi) - Fi$$

Where P is the price, ci is the bank i's variable cost, xi is the output of bank i, X is industry output, EXsi are exogenous factors affecting bank i's cost but not industry demand, EXD are exogenous factors affecting industry demand but not marginal cost and Fi is bank i's fixed cost. Defining c'i the marginal cost of bank i, the first-order condition for profit maximization is:

$$\theta = P(X, EX_D) + x_i \frac{dP}{dX}\frac{dX}{dxi} - c'_i(x_i).$$

Summing over all banks and dividing through n yields:

$$\theta = P(X) + \frac{1}{n} XP' \frac{dX}{dxi} - \frac{1}{n} \sum_{i=1}^{n} c_i(x_i);$$

hence,

$$P = \lambda_i^* \, XP' + \frac{1}{n} \sum_{i=1}^{n} c'_i.$$

With the semi elasticity of demand $\check{n}_D$ and average marginal cost c' one has:

$$P = \lambda_i^* \check{n}^{-1}_D + c'$$

This relationship reflects how prices are affected by demand elasticities and cost where the oligopolist is assumed to maximize perceived profits through consideration of the reaction of other players.

Another re-arrangement illustrates the interpretation of λi* as part of the Lerner index:

$$L = \frac{P - c'}{P} = \lambda_i^* \frac{1}{\eta_D} \qquad (*)$$

Hence, λi* indicates to which extent the maximum markup is actually charged. Note that in a monopoly the Lerner index equals inverse elasticity. This is consistent with assigning the value 1 to λi* in case of monopoly as done above. Multiplying (*) with ňD yields the elasticity-adjusted Lerner index Ln:

$$\lambda_i^* = \eta_D \frac{P - c'}{P} =: L_\eta$$

The elasticity-adjusted Lerner index has an important feature: it differentiates whether high price-cost margins are due to the abuse of market power or to low elasticities.

2.4 The Panzar-Rosse approach

2.4.1 H-statistic

By the analysis of the comparative statics properties of the reduced form revenue equation at the firm level Panzar and Rosse have developed the H-statistic, which allows to test for different market equilibria. In their model they try to draw conclusions from the reaction of firm revenues to changes in input prices, such as personnel expenses or fixed capital cost. Therefore, the H-statistic sums up the factor price elasticities of firm revenues:

$$H: = \sum_{i=1}^{n} \frac{dR^*}{dw_i} \frac{w_i}{R^*}$$

Where R* = R* (w, z, t) denotes the reduced form revenue equation, with z being exogenous variables shifting the firm's revenue from t being exogenous variables shifting the firm's cost function, and w = (w1……..wn) being factor prices.

Testable Implications

The following table shows the testable implications of the possible hypotheses:

Competitive environment test	
Monopoly or perfect collusion	$H \leq 0$
Symmetric Chamberlinian equilibrium	$H \leq 1$
Long run competitive equilibrium	$H = 1$

(Recall that in Chambarlinian equilibrium the "monopolist" earns zero economic profits because it faces competition through slightly different products offered by rivals (product differentiation)).

Economic intuition:

Perfect competition: Suppose all input factor prices rise by 1%. As we have assumed linear homogeneous cost functions the average total cost curve shift upward by 1% for all output levels. Thus prices increase by 1% as well. As the minimum point of the average total cost curve does not move optimum output remains constant. Thus revenue rises by 1%. The effect of a 1% increase of factor input prices is a 1% increase in revenue.

Monopoly: An increase in input factor prices produces an upward shift of cost functions. Thus prices rise and output falls. As monopolist produce on the elastic portion of the inverse demand schedule this has negative total effect on revenues. Hence an increase in input factor prices causes a decrease in revenues.

Chamberlinian equilibrium: As in a monopoly, firms produce on the elastic portion of the inverse demand schedule. Hence, higher input factor prices resulting in higher prices and lower output have a negative effect on revenues. But as, similarly to what happens in perfect competition, “competitors” exit the market the monopolistically competitive firm faces higher demand which produces a positive effect on revenues. Thus the total effect may be positive or negative.

Empirical Work on PR H-Statistics

We summarize the empirical work on PR/H-Statistics as follows:

Author	Variable	Period	Banks/FI	H-Statistic
Molyneux et.al (1994)	Interest Revenue	1986 1989	109 171	0.6282 0.8525
Bikker and Haaf (2002)	Interest Revenue	1991 1997	213	0.6100 0.64
Claessens and Laeven (2004)	Interest Revenue	1994-2001	106	0.74
Casu & Girardone (2005)	Total Revenue	1997-2003	63	0.307-0.327
Mathews et. al (2006)	Total Revenue	1980-1991 1992-2004	10 12	0.7506 0.5022
Mathews et. al (2006)	Interest Revenue	1980-2004	10-12	0.5648

Source: Mathews, K.; Murinde, V. and Zhao, T (2006)

CHAPTER THREE

OVERVIEW OF BANKING INDUSTRY

3.0 Introduction

The structure of the formal financial sector in Ghana was as a result of financial policies pursued over the years. Deliberate policies were implemented to enhance the efforts of institutional building based on the financial service needs of the nation at various stages of its development. Policies aimed at addressing weaknesses inherent in the colonial banking system as well as streamlining the banking operations were initiated.

Over the years specialised banks were created. The objectives of these banks were tailored to meet the financial needs of specific sectors of the economy and promote the development needs of these sectors. For instance, banks were established to promote investment, construction and agricultural development in Ghana. Along the line, the Government also created several rural banks, which were widely dispersed throughout the country. This was to enhance the financial deepening of the rural economy so as to facilitate the mobilisation of rural resources for the financing of micro and other small-scale economic activities in their catchment areas.

The state led financial sector policy included many interventions in financial markets including interest rate controls, direct credit and subsidies. Under this regime, the banking system did not grow. In addition, the system was characterised by weak legal and regulatory framework and inadequate supervisory coverage. Prudential norms, accounting and reporting standards were not clearly defined by

law. The banks piled up huge debts with their balance sheets showing chunks of non-performing assets. The deterioration in the financial sector is well illustrated by the value of non-performing loans, which was estimated at the beginning of the financial sector restructuring, at 41% of total credit extended to state enterprises and private firms (World Bank, 1994).

The financial sector adjustment programme (FINSAP) sought to liberalise the financial sector, improve savings mobilisation and enhance the efficiency of credit allocation through interest rate liberalisation and competition and enhance the soundness of the banking system through an improved regulatory and supervisory framework as well as develop money and capital markets.

This chapter reviews the financial sector policies and reforms implemented in Ghana since independence and analyses their impact on the banking system. The banking system, which includes commercial and development banks (which since the 1970s have accepted deposits and undertaken commercial banking activities), comprises the major part of the financial system in Ghana. The chapter tries to assess how effective the financial sector reforms have been in addressing the consequences of the pre-reform financial policies, and in particular whether financial liberalisation, bank restructuring and prudential reforms have succeeded in fostering the development of a more efficient, competitive and prudentially sound banking system.

The first part of the chapter describes the pre-reform financial sector policies which involved control over interest rates, attempts to control the sectoral allocation of lending and the establishment of public sector banks, while the second part assesses

the impact of these policies on financial depth, on credit supply and on bank distress. The third part of the chapter outlines the objectives and main components of the financial sector reform programme implemented since 1988. The chapter further assesses the progress of the restructuring of the public sector banks, which were insolvent at the end of the 1980s. The chapter concludes by looking at the environmental factors which explains the banks' performance over the last two decades as well as SWOT analysis of banks in Ghana.

3.1 Post Independence Financial Sector Policies

Extensive government intervention characterised financial sector policies in the post independence period (Brownbridge and Gockel, 1997). Public ownership dominated the banking system: all the banks set up between the early 1950s and the late 1980s were wholly or majority owned by the public sector, while the government also acquired minority shares in the two already established foreign banks in the mid 1970s. Interest rates were administratively controlled by the Bank of Ghana (BOG) and a variety of controls were also imposed on the asset allocations of the banks, such as sectoral credit directives. The motivation for these policies was the belief that, because of market imperfections and the nature of the financial system inherited from the colonial period, the desired pattern of investment could not be supported without extensive government intervention in financial markets. Policies were motivated by three objectives:

- To raise the level of investment;
- To change the sectoral pattern of investment, and
- To keep interest rates both low and stable (Gockel, 1995, p117). Financial sector policies were characterized by severe financial repression, real

interest rates were steeply negative and most of the credit was channelled to the public sector.

3.1.1 Establishment of public sector banks

The government established its own commercial and development banks for two reasons:

- The belief that the operational focus of the foreign commercial banks (Barclays Bank Ghana and Standard Chartered Bank), in particular their lending policies, was too narrow, thus depriving large sections of the economy of access to credit; and,
- Second, the contention that sectors important for development, such as industry and agriculture, required specialised financial institutions (FIs) to supply their financing needs. Hence the need to set up National Investment Bank for Industrial development, Agricultural Development for Agricultural development and Bank for Housing and Construction for Housing and Construction industry.

Dissatisfaction with the foreign banks focused on their conservative lending policies, modelled on those employed in the UK, and in particular their demands for the types of security (life insurance policies, stock certificates, bills, etc) which were uncommon in Ghana (Newlyn and Rowan, 1954, p82).

The Ghana Commercial Bank (GCB) was set up in 1953 to improve the access to credit of indigenous businesses and farmers. It was also instructed to extend a branch network into rural areas, so that people in the rural areas would have access to banking facilities, and was heavily involved in lending to agriculture. Ghana

Commercial Bank (GCB) became the largest bank in Ghana: it had 36% of total bank deposits in the late 1980s and currently it is still the largest Bank in terms of assets and deposits with a market share of deposits of 19%.

It must be noted that the Ghana Commercial Bank (GCB) was set up following the recommendation made by the Trevor Report, an enquiry commissioned by the government into banking in the then Gold Coast. The enquiry had been prompted by local criticisms of the operational practices of the expatriate banks and the workings of the sterling exchange system.

The Social Security Bank (SSB), which is now called SG-SSB, was set up in 1977. It grew rapidly to become the second largest bank in Ghana, with 18% market share of deposits in the late 1980s, providing credit, including longer term loans, for businesses and consumers. It also invested in the equity of several large businesses. Two smaller commercial banks began operations in 1975. The National Savings and Credit Bank (NSCB) - formerly the Post Office Savings Bank - and the Cooperative Bank: these were expected to provide consumer loans, credit for small industries and cooperatives. A merchant bank, Merchant Bank Ghana (MBG), was set up in 1972 as a joint venture between ANZ Grindlays, the government and public sector Finance Institutions (FIs), with the former having a 30% stake.

To fill the perceived gaps not served by the commercial banks, especially for long term finance, three development finance institutions (DFIs) were set up: the National Investment Bank (NIB), in 1963, to provide long term finance for industry; the Agricultural Development Bank (ADB) in 1965 (*The Agricultural Development Bank (ADB) was originally called the Agricultural Credit and*

Cooperative Bank); and the Bank for Housing and Construction (BHC), in 1974, to provide loans for housing, industrial construction and companies producing building materials. The DFIs mobilised funds from deposits as well as from government and foreign loans and undertook commercial banking activities as well as development banking.

The government did not nationalise the two foreign owned banks - Barclays Bank and Standard Chartered Bank (SCB) - which had been established in Ghana during the colonial period, but it did acquire 40% equity stakes in the banks following an indigenisation decree enacted in 1975 (which was applied to all large scale industries).

Historically, a Cooperative Bank had been set up in 1946 to serve cooperatives in the cocoa growing areas, but it was closed down in 1961 for political reasons, and its assets and liabilities transferred to GCB in the following year (Adjetey, 1978, p36). The first three commercial banks set up - Barclays, Standard Chartered Bank and Ghana Commercial Bank (GCB) - were referred to in Ghana as the primary banks. The commercial banks, merchant banks and DFIs set up after independence were referred to as secondary banks. This distinction is no longer used because of the Universal Bank business now. A third foreign bank - Bank of Credit and Commerce (originally known as the Premier Bank) - was set up in 1978. The government also has an equity stake in this bank. Its parent bank - Bank of Credit and Commerce International - was closed down in 1991.

3.1.2 Interest Rate Policy

The BOG determined the structure of bank interest rates, including minimum interest rates for deposits and maximum lending rates. Priority sectors, such as agriculture, received preferential lending rates: in some cases these were lower than the minimum savings deposit rates. The structure of interest rates set by the BOG made no allowance for loan maturity or risk; indeed incentives for banks to extend credit were often perverse because riskier sectors such as agriculture were accorded a preferential rate. Nominal interest rates were held below prevailing inflation rates in most years and, when inflation accelerated in the second half of the 1970s and early 1980s; real interest rates were highly negative.

Table 3.1: Selected Interest Rates and Inflation: 1975-1995 (%)

Year	12 month deposits	Savings deposits	Lending (agric)	Lending (Others)	Treasury Bills	Inflation (Yearly Av.)
1975	8	7.5	n/a	12.5	7.8	29.8
1976	8	7.5	6	11.5-12.5	7.8	55.4
1977	8	7.5	8.5	11.5-12.5	7.8	116.5
1978	13	12	13	18.5	12	73.1
1979	13	12	13	17.5-18.5	12	54.5
1980	13	12	13	17.5-18.5	12	50.2
1981	19	18	20	25.5	18.5	116.5
1982	9	8	8	14	9.5	22.3
1983	12.5	11	12.5	19	13	122.8
1984	16	14.5	16	22.5	16.8	39.7
1985	17	15.5	18	22.5	16.8	10.3
1986	20	18.5	22.5	23	19.8	25.6
1987	20-22	21.5	22.8-30	26	19.6	39.8
1988	17-22	17-21.5	23-30	23-30.3	19.8	31.4
1989	12-20	15-19	22.5-30	22.5-30.3	19.9	25.2
1990	14-22	14-18	22.5-29.5	22.5-30.3	27.5	37.2
1991	16-24	10.6-19.5	19.5-31.5	23-31.5	18	18.0
1992	15.5-22.5	11-16	19.8-26.5	24.29	25.4	10.1
1993	17-32	15-22.5	24-39	26-39	32	25.0
1994	14-31	13.8-22.5	22.5-35.5	29-37.5	29.5	24.9
1995	18-34	21.5-31	27-38.5	32-40.5	33	58.50

Sources: Gockel (1995, p.320); Bank of Ghana (various issues)

3.1.3 Credit Controls

Sectoral credit guidelines, based on an annual credit plan drawn up by the Bank of Ghana (BOG), were imposed on the banks to channel credit towards the priority sectors of agriculture, manufacturing and exports: these usually took the form of maximum permitted percentage increases in the stock of loans to each sector, with priority sectors accorded larger increases than non priority sectors. The sectoral credit directives appear not to have been strictly enforced. Since 1981 an additional regulation stipulated that lending to agriculture should comprise a minimum of 20% of total loans, with shortfalls to be transferred to the Agricultural Development Bank (ADB). Foreign companies were required to obtain Bank of Ghana (BOG) permission to access loans from domestic banks.

3.1.4 Demonetization Exercises and Anti Fraud Measures

A series of measures taken by the government during the late 1970s and early 1980s further eroded public confidence in the holding of currency and bank deposits. The most drastic were two currency appropriations in 1979 and 1982, initiated in an attempt to reduce the money supply and therefore inflation, but the public were also discouraged from holding bank deposits by a number of measures aimed at countering fraud. Banks were ordered in 1979 to furnish information to the authorities about customers at the authorities' request. In 1982 accounts in excess of C50,000 were frozen pending investigation for fraud or tax liabilities, bank loans for the financing of trade inventories were recalled and compulsory payment by cheque was introduced for business transactions in excess of GHC1,000.

3.1.5 Prudential Regulation and Supervision

The 1970 Banking Act provided the regulatory framework for the banking industry. This imposed minimum paid up capital requirements for foreign and locally owned banks of GHC2 million and GHC0.5 million respectively (the latter was subsequently raised to GHC0.75 million). The minimum capital requirements were worth very little by the early 1980s because of inflation. At the end of 1983, the minimum paid up capital for a local bank was equivalent to only $16,000. Banks were also required to maintain capital and reserves of at least 5% of their total deposits (rather than risk assets which would be more relevant as an insurance against insolvency).

The capital adequacy requirements were in any case largely meaningless because of the absence of clear accounting rules regarding the recognition of loan losses, provisioning for non performing assets and the accrual of unpaid interest. The true state of banks' balance sheets, including the erosion of their capital as a result of loan losses, could therefore be concealed. Although the Banking Act did provide some rules to constrain imprudent behaviour by banks, penalties for infractions were minimal. There were also important regulatory omissions, such as limits on single borrower loan exposures.

A Bank Examination Department (BED) was established in the Bank of Ghana (BOG) in 1964 but its activities were largely confined to ensuring that banks complied with allocative and monetary policy directives, such as sectoral credit directives, and reserve requirements, rather than prudential regulations. The BED also lacked adequate resources to monitor and inspect the banks. In the early 1980s it had only five professional staff, of which only two had any training in bank supervision. On site examinations were infrequent and off site supervision was

impeded because of deficiencies in bank reporting (i.e. the submission of financial data by the banks to the BOG). Hence the BED lacked the information necessary to evaluate the condition of banks' asset portfolios, their profitability and solvency (World Bank, 1986, p65).

3.2 Impact of Pre-Reform Policies on Banking Markets

The pre-reform policies of financial repression and public ownership of banks had important consequences for the banking system. Financial depth collapsed, and with it the ability of the banking system to supply credit, including to the priority sectors which financial policies aimed to support. With the exception of those banks which retained foreign equity participation (ie Barclays Bank Ghana, Standard Chartered Bank and Merchant Bank Ghana), the banks in Ghana all became insolvent as a result of bad debts and investments in commercially unsuccessful ventures.

3.2.1 Financial Depth

Financial repression caused severe financial shallowing in Ghana. The broad money/GDP ratio, which had been relatively stable at around 20% from 1964-74, rose briefly in the mid 1970s (to a peak of 29% in 1976)[7] and then collapsed to 12.5% in 1983 (table 3.2). Moreover bank deposits became less attractive relative to cash: the currency/M2 ratio rose from 35% in 1970 to 50% in 1983, reflecting a process of disintermediation from the formal financial system. Bank deposits amounted to only 7.4% of GDP in 1984, having fallen from 19.5% of GDP in 1977.

Table 3.2: Money Supply, Bank Deposits and Credits to the Private 1970-1994

Year	M2/GDP (%)	Bank Deposits/ GDP (%)	Bank Claims on Private Private/GDP (%)
1970	19	12.4	8.2
1971	19	12.6	12.6
1972	23.7	15.2	10.1
1973	22.6	15.6	5.3
1974	21.6	14.4	5.7
1975	26.2	17	5.8
1976	29.1	18.3	5.9
1977	29.7	19.5	5
1978	26.6	16.6	3.5
1979	22.8	14.2	2.8
1980	20.4	12.4	4.1
1981	22.9	14.7	3.1
1982	19.8	12	3.7
1983	13.2	7.8	2.7
1984	12.5	7.4	3
1985	16	9.7	4.5
1986	16.5	10.4	5.2
1987	17.1	10.9	4.3
1988	17.3	11.2	3.6
1989	16.9	11.1	5.6
1990	13.6	9.7	3.9
1991	13.4	9.3	3.2
1992	17.5	11.8	4.6
1993	16.9	12.7	4.6
1994	18.7	12.8	5.3

Sources: Bank of Ghana (various issues) and Quarterly Digest of Statistics (various issues)

Aryeetey and Gockel (1990), in a study of the informal financial sector, found that street banking was increasing in contrast to formal sector intermediation. The main causes of the decline in financial depth included the sharply negative real deposit rates, which deterred savers from holding financial assets. The currency appropriations of 1979 and 1982, the freezing of bank accounts and the decree authorising the government to demand details of customers' bank accounts from banks, all served to erode public confidence in holding domestic currency and using the banking system, instead encouraging the use of informal financial intermediaries and the holding of savings in the form of physical assets, such as buildings and construction materials, or foreign assets. Long waiting times in banks, a consequence of inefficiency and the lack of large denomination bank notes, also deterred the public from depositing cash in banks. Moreover the banks were discouraged from active deposit mobilisation because interest rate controls and the very high statutory reserve and liquid asset requirements prevented banks from channelling depositors' funds into remunerative outlets. At times the banks refused to open new time and savings deposit accounts and refused to pay interest on accounts above a certain amount (Leite, 1982).

3.2.2 Lending to Priority Sectors

Although pre-financial sector policies aimed to support priority sectors through the use of sectoral credit guidelines and preferential interest rates, the supply of credit to these sectors declined precipitously in real terms. Credit to the whole of the non government sector (which included both priority and non priority sectors) amounted to only 3.6% of GDP in 1983, having fallen from 9.8% in 1977 (World Bank, 1986). The main reasons for the decline in credit supply were the fall in financial depth discussed above combined with crowding out by the government's borrowing requirements, which reduced the aggregate volume of funds which banks had to

lend to all non government borrowers, including public enterprises. The government took 87% of net domestic credit in 1983.

While the total volume of bank lending fell, the sectoral credit directives were not always effective in ensuring that the desired sectoral distribution of credit was realised. Although credit to agriculture usually exceeded the stipulated minimum of 20% of total loans, there is anecdotal evidence that agricultural loans were diverted to other uses, such as trading. Credit to other priority sectors often fell short of the maximum permitted under the credit ceilings while that to non priority sectors often exceeded their ceilings (World Bank, 1986, pp38-39).

Banks were discouraged from allocating their available funds to priority sectors because of the lending rate controls which made no allowance for the risk of lending, or for transactions costs. Banks had strong incentives not to extend credit to potentially risky borrowers but to invest in government securities instead, since the latter offered the same, or almost the same, interest rates, but unlike the former were both liquid and virtually risk free.

3.2.3 Financial Distress among Public Sector Banks

Financial distress afflicted all the public sector banks in the 1980s. The DFIs appear to have run into serious difficulties first, while the emergence of distress in the two main commercial banks - GCB and SSB - was delayed until the mid 1980s. All the banks were rendered insolvent by non performing assets (NPAs) and had to be restructured in 1989-91, when a total of C62 billion of NPAs was identified in the banking system and replaced by BOG bonds or offset against liabilities of the banks to the BOG or the government. Most of the NPAs were transferred to the Non Performing Assets Recovery Trust (NPART) in 1991.

The NPAs included non performing loans, letters of credit and equity investments which yielded no income. Non performing loans amounted to GHC32 billion, representing 41% of all outstanding loans to the non government sector (Kapur et al, 1991, pp60-61). Of the C50.4 billion of NPAs which were eventually transferred to NPART in 1991, GCB, BHC and SSB accounted for 28%, 25% and 25% respectively (Table 3. 4). Almost all of the NPAs had been incurred by banks wholly owned by the public sector: Barclays Bank Ghana, Standard Chartered Bank and Merchant Bank Ghana accounted for only 4% of the NPAs transferred to NPART (see table 3. 4). The total assets of all the banks at the end of 1989 amounted to C316 billion: hence NPAs accounted for almost 20% of the banks' total assets. Aggregate capital and reserves of the banks was negative C2.4 billion at the end of 1989 (Bank of Ghana, QEB, 1992, statements 2A and 2B).

Loan losses would probably have been much greater had not lending been curtailed by the high liquid reserve requirements and credit ceilings imposed in the 1970s and 1980s. The DFIs also incurred heavy losses from foreign exchange exposures: they had converted foreign currency liabilities into domestic currency assets without providing for the risk involved.

The main reason for the losses incurred by the public sector banks was that they had been pressured into extending finance to unbankable projects to meet developmental and political objectives. The banks were very vulnerable to political pressure because the government had the authority to appoint and dismiss the banks' executives and managers. The economic crisis and the radical changes in economic policy implemented during the 1980s also contributed to the deterioration

in the banks' asset portfolios. Some of the projects financed by banks were closed down because foreign exchange to purchase inputs was unavailable. Many importers, to whom letters of credit had been extended by the commercial banks, were unable to meet their obligations following the large exchange rate devaluations which began in 1983.

Around 47% of the NPAs transferred to NPART had been extended to state-owned enterprises (SOEs), many of which were not economically viable. The government had provided guarantees for some of the loans extended to SOEs but these had not been honoured. The other 53% of NPAs transferred to NPART were accounted for by private sector creditors or joint ventures between the private sector (including foreign companies), traditional councils and the banks. These were mainly medium and small scale companies in import substituting industries. Many of these projects were not properly appraised by the banks providing the finance, some were clearly only marginally viable, if viable at all, and the collateral provided had little resale value. Loan documentation was inadequate, as was loan monitoring and little effort was made to recover many of the bad debts.

NPART (1994, pp7-12) provides an interesting account of the problems which led to the collapse of four projects financed by the BHC, NIB and SSB. The problems afflicting these projects included inappropriate technical design, equipment breakdowns, disputes between shareholders, the withdrawal of foreign partners and the unavailability of inputs. Most of the assets owned by these companies consisted of equipment which had been left lying around in fields without maintenance for years after the collapse of the projects and hence were virtually worthless when eventually auctioned by NPART.

Corruption and fraud contributed to the scale of the banks' losses with politically connected borrowers being able to access unsecured loans which would not have been given to them on commercial grounds and to avoid pressure to repay. During the Acheampong regime in the 1970s, loan applicants obtained notes from military officers and took these to bank managers:

If the manager did not comply he risked being sacked over the radio. Many of the BHC's bad debts had been extended to military personnel. In addition some of the banks' staff lacked the necessary qualifications and expertise because recruitment was influenced by nepotism and political influence.

The public sector banks continued in operation throughout the 1980s despite the poor quality of their asset portfolios. Ghana Commercial Bank (GCB) and Social Security Bank (which is now called SG-SSB) were able avoid liquidity shortages partly because the very high reserve requirements imposed in the 1970s and the credit ceilings in the 1980s forced them to hold large volumes of liquid assets. But the DFIs, whose asset portfolios were both longer term and more badly impaired than those of the commercial banks, and which had the additional burden of foreign currency denominated liabilities, were worse affected by financial distress and suffered liquidity shortages in the early 1980s.[11] Both the Bank for Housing and Construction (BHC) and National Investment Bank (NIB) required injections of equity and loans from the BOG to maintain liquidity and boost capital, but this only allowed further large losses to be incurred in the second half of the decade.

The true state of the banks' balance sheets was concealed by the failure to make adequate provisions for NPAs and to suspend accruing unpaid interest as income.

Hence banks appeared solvent, according to the data in their published accounts, (even though the capital adequacy levels of some banks were very low) when appropriate accounting procedures would have revealed that losses had completely eroded capital. The extent of the financial distress in these banks was only revealed when diagnostic studies were carried out in 1987 as part of the preparations for the Financial Sector Adjustment Programme (FINSAP).

Table 3.3a : NPAs Transferred to NPART by Type of Borrower (¢'Millions)

	Amount	%
Private Sector	26,487	52.5
SOEs	23,946	47.5
Total	50,433	100

Excludes NPAs transferred from Ghana Cooperative Bank

Source: NPART (1991, p.23)

3.3b : NPAs Transferred to NPART by Banks (¢'Million)

Bank	**Amount of NPAs Transferred** to NPART (¢'Million)	**% of total NPAs Transferred** to NPART
GCB	14,321	28.4
SSB	12,585	25.0
NSCB	725	1.4
ADB	1,293	2.6
NIB	6,623	13.1
BHC	12,853	25.5
BBG	689	1.4
SCB	462	0.9
MBG	881	1.7
Total	50,432	100.0

An additional ¢5.1 billion of NPAs was transferred to NPART from Ghana Cooperative Bank in 1994.

Source : NPART (1991, p.24; and 1994, p.15)

By the end of 1983, the BHC and NIB had arrears rates of around 85% and 52% of their respective asset portfolios. After making provisions for arrears in 1984, the NIB recorded a loss which more than wiped out its capital and reserves (World Bank, 1986, p72-75; National Investment Bank, 1991, appendix 6). The NIB and BHC each received C880 million from the BOG in the form of equity and loans in 1983/84 (World Bank, 1986, pp74-75). Bank of Credit and Commerce, which also had foreign ownership, did suffer from financial distress in 1991

3.2.4 Foreign Banks

The banks with foreign equity participation (Barclays, SCB and MBG) avoided incurring significant levels of loan losses and were generally profitable.[13] Despite the government equity stakes in these banks and the credit directives issued by the BOG, they were able to resist most of the pressure to extend credit to unbankable borrowers. They maintained conservative lending policies with loan applications evaluated according to strict commercial criteria. Foreign ownership appears to have provided some protection against government interference in lending decisions which was so pervasive in the public sector banks. Although the foreign banks had to comply with credit guidelines, they were able to identify the more creditworthy borrowers within the priority sectors to lend to; usually the larger established private sector companies which had a wide range of business activities in different industries.

Where loans were made to riskier sectors such as agriculture, Barclays and SCB protected their balance sheets by using BOG credit guarantees. In addition the SOEs - a major source of bad debts - were given instructions to bank with GCB, thereby allowing the foreign banks to avoid this sector.

3.3 Financial Sector Adjustment Programme (FINSAP)

The comprehensive economic adjustment program which embodied the financial sector reform started in April 1983 following years of continuous decline in economic performance. The first phase of the Economic Recovery Program (ERP) dated from 1983 to 1986 and focused on stabilization measures. The policies implemented include currency devaluation, tighter fiscal management, and liberalization of prices including interest rates.

Financial sector reforms have been implemented since the late 1980s as part of the ongoing Economic Recovery Programme (ERP). They began with the partial liberalisation of interest rates in 1987 and removal of sectoral credit ceilings in the following year. This was accompanied by liberalisation of access to foreign exchange and the licensing of foreign exchange bureaux. In 1989 the FINSAP was begun, supported by a financial sector adjustment credit (FSAC) from the World Bank.

The objectives of the FINSAP, inter alia, were to address the institutional deficiencies of the financial system, in particular by restructuring distressed banks, reforming prudential legislation and the supervisory system, permitting new entry into financial markets by public and private sector FIs, and developing money and capital markets.

Further liberalisation of financial markets took place in 1992 with the adoption of indirect instruments of monetary control which entailed the introduction of market determined Treasury bill rates. Since 1994 a second phase of the FINSAP has been underway, major objectives of which are the privatisation of public sector banks and development of non bank financial institutions (NBFIs) to fill the gaps in the financial markets not served by the banks. The following sections discuss the

progress, achievements and limitations of the three components of the FINSAP which most directly affect the banks; bank restructuring, reforms to the prudential system and the liberalisation of financial markets.

3.3.1 Restructuring the Public Sector Banks

The restructuring of the public sector banks began in 1989, and involved balance sheet restructuring and reforms to their management and operating procedures. Balance sheet restructuring was necessary because the banks were insolvent and the magnitude of their NPAs was too large for them to be able to restore adequate levels of capitalisation from future profits. Hence recapitalisation from public funds was necessary. NPAs amounting to C62 billion ($170 million or 4.4% of 1989 GDP) were removed from the banks' balance sheets and replaced with BOG bonds or offset against debts owed to the government or the BOG in 1990/91. A specialised government agency - the Non Performing Assets Recovery Trust (NPART) - was set up to take over the NPAs and attempt to recover as 11 many of them as possible.[14] NPART received C50.4 billion of NPAs in 1991 and had recovered C14.1 billion by the end of 1994 (NPART, 1994, p6). A further C5.1 billion of NPAs were transferred to NPART from the Ghana Cooperative Bank in 1994. In addition the BOG assumed responsibility for some of the foreign currency liabilities of the DFIs and the Social Security Bank (now SG-SSB). The replacement of NPAs in the banks' balance sheets enabled all but one of the public sector banks to meet, by the end of 1990, the minimum capital adequacy requirement of 6% of adjusted assets prescribed in the 1989 Banking Law. Not all of the banks' NPAs were transferred to NPART. Some of those regarded as unrecoverable, especially small loans to farmers, were not transferred. The banks were given bonds with maturities of two-five years yielding interest rates of

between 7% and 12%. They were subsequently rolled over at rates of 15% (World Bank, 1994, p56). The exception was the Ghana Cooperative Bank.

In addition to recapitalisation it was necessary to reform the management and operating procedures of the banks to prevent bad debts from recurring, and to reduce operating costs. New boards of directors and executives were appointed to the public sector banks in 1990, and turnaround plans formulated for each of the banks. Technical assistance was provided through twinning arrangements with foreign banks such as the State Bank of India. The restructuring involved the overhaul of credit policies and strengthening of credit appraisal, loan monitoring and loan recovery systems, areas which had been particularly weak prior to the reforms. Internal controls, inspection and audit were improved and budgetary and performance appraisal systems were introduced. Staff training programmes were enhanced.

To cut costs, staffing levels were reduced by 38% between 1988 and 1992, and some bank branches were closed (World Bank, 1994, p57; National Investment Bank, 1991; interviews in Accra, 1995 & 1996).

The Social Security Bank (SG-SSB) now concentrates on commercial banking and no longer undertakes equity investments in new ventures: such investments were the source of many of its NPAs prior to the restructuring. However the GCB has been pressured by the government to continue financing some of the larger SOEs (interviews in Accra, 1995).

A further safeguard against political interference in banks would be their privatisation, the first stage of which began in 1995 when the government sold part of its equity stake in the Social Security Bank (SG-SSB) to the public and then sold 30% of its shares in GCB in 1996. There were plans for the divestiture of government equity in the DFIs but up to date that has not materialised.

In the sixteen years since the restructuring exercise began the financial performance of the public sector banks has been reasonably good, with the exception of the Ghana Cooperative Bank and Bank for Housing and Construction which were still insolvent from 1995 and were closed down in 2000. Banks in Ghana have generated profits, their rates of return to capital have exceeded inflation on average during 1991-95, they have built up their capital and reserves, have been able to meet the minimum capital adequacy ratios imposed by the 1989 Banking Law, and have generally been highly liquid (see table 3.5). The banks are however still afflicted by significant levels of NPAs, albeit not at the levels which prevailed prior to the restructuring, even though the share of loans in their asset portfolios is low. The GCB made annual provisions for bad and doubtful debts, out of earnings, equivalent to almost 14% of its total loans during 1991-95, while the SSB, ADB and NIB made provisions averaging around 5% of their loans.

The financial position of the GCB must still be a cause for some concern. It suffered a sharp drop in shareholder funds, in loans and advances and in total assets in 1994, for reasons which are not transparent because it published no annual report for that year or for 1995, and its capital adequacy ratio declined steeply in 1995. As noted above, it has had to make extensive provisions (provisions and interest in suspense amounted to 43% of its outstanding loans and advances in 1995) which

indicates that a large share of its loan portfolio is nonperforming. It experienced liquidity shortages in late 1993/early 1994, although it claimed this was not its fault.

Since the restructuring exercise began the banks have done very little lending: most of their assets have been held as liquid assets, primarily government and BOG securities, which since the introduction of the TB auction have provided a remunerative and safe source of income.

The average ratio of loans to total assets of the five public sector banks in table 3.5 was only 22% during 1991-95. The low level of lending is only partly attributable to the high liquid asset ratios imposed by the BOG. Bankers interviewed in 1995/96 conceded that creditworthy borrowers were very scarce and that they would be reluctant to increase lending even if reserve ratios were lower, especially in view of their past experience of bad debts.

From the point of view of asset management, restoring financial viability to the public sector banks has been relatively straightforward. Banks have been able to avoid the much more difficult task of building up an income generating loan portfolio which would have necessitated them identifying and servicing commercially viable and creditworthy business projects, or at least borrowers with adequate security. While the restructuring has enabled the banks to stop making bad loans, it is not yet clear that it has enabled them to make good loans especially during 1999 to 2000. This is due to the macroeconomic environment (high inflation, high interest rates and depreciation of the Cedi). Banks became interested in Government T-bill instruments. The trend is gradually decline since 2001 due to the stability in the economy. The banks will then have to expand their lending to the

private sector or to SOEs. Whether they have been able to develop the capacity to undertake commercially viable lending will indicate how successful the restructuring of the banks has actually been.

Table 3.4: Public Sector Banks after Restructuring - Selected Financial Ratios; Averages 1991-1995 (%)

	GCB	SSB	ADB	NIB[1]	BHC[2]
Loans/Total Assets	8.3	14.6	33	27.8	23.8
Provisions(charges during year)/loans	13.9	5.3^	4.5	6.6	na
Profit before Tax/Total Assets	5.1	7.9	7.9	8.3	6.3
Profit before Tax/Shareholders Funds	39.6	71	51.6	28	43.8
Capital Adequacy[3]	6.8	22.6	17.9	29.6	12.8

Notes:

^ :1993-1995 (data on provisions not published in 1991 & 1992 Accounts

1 : 1991-1994

2 : 1992-1995

3 : 1995 – the minimum capital adequacy ratio was 6%

Profits are derived after making provisions for bad and doubtful loans

Sources : GCB, SSB, ADB, NIB and BHC Annual Reports and Accounts

3.3.2 Reforms to the Prudential System

The reforms to the prudential system entailed revisions to the banking legislation with the enactment of a new Banking Act in 1989 and an NBFI Act in 1993 (NBFIs had not previously been covered by financial legislation), the introduction of standardised reporting and accounting procedures, and the strengthening of supervisory capacities in the BOG.

The 1989 Banking Law initially imposed minimum paid up capital requirements for Ghanaian and foreign owned commercial banks of GHC200 million and GHC0.5 billion respectively, and GHC1 billion for development banks providing medium

and long term finance for trade and industry. Currently the figure has been revised to GHC70billion for universal banking business and GHC25 billion for Commercial banking business. The BOG has the authority to amend the capital requirements. An upward revision of the capital requirements has become increasingly urgent in view of the high rates of inflation in the 1990s. The Banking Law initially sets a minimum capital adequacy ratio of 6% of adjusted risk assets and requires banks to maintain reserve funds with transfers out of annual profits and currently the capital adequacy ratio has been reviewed to 10%. The Law also gives the BOG the authority to prescribe minimum liquid asset ratios.

The C200 million required to open a locally owned commercial bank was equivalent to $1 million in 1989 but this had fallen to only $117,000 by mid 1996.
The capital adequacy provisions differ in two respects from those set out in the Basle accords. The required minimum is lower: 6% against 8% in the Basle accords. However the adjusted asset base which forms the denominator for the capital adequacy requirement is larger under the Ghanaian Banking Law than it would be under the Basle accords, mainly because the Ghanaian schedule recognises only two classes of assets (assets given a risk weighting of 100% and those regarded as riskless) rather than the five classes of assets in the Basle accords. Assets which under the Basle accords attract a weighting of less than 100% (e.g. mortgages) are given a 100% weighting under the Ghanaian Banking Law, and hence are required to be supported by a larger amount of capital in the latter. The main use of the liquidity ratios is for monetary policy rather than prudential purposes.

The Banking Law stipulates exposure limits for secured credits or guarantees to a single customer (except for other banks) of 25% of the bank's net worth, and

unsecured credits or guarantees of 10% of net worth. To restrict insider lending, exposure to customers with links to the bank's own directors is limited to a maximum of 2% of net worth for secured facilities and 2/3% of net worth for unsecured facilities. Banks cannot advance credit against the security of their own shares or directly engage in non banking business, and the Banking Law restricts equity investments and loans which banks can extend to subsidiary companies.

However the Law does not set out limits on a bank's foreign currency exposures.
The Banking Law gives the BOG authority to take action against a bank which it believes may be unable to meet its obligations to depositors, or is not acting in the best interests of depositors and creditors. Action available to the BOG includes prohibiting acceptance of fresh deposits, assuming control of the bank or revoking the bank's license.

A standardised accounting system for the banks, which includes explicit criteria for the classification of loans, provisioning for non-performing assets and the non-accrual of unpaid income, has also been introduced. To facilitate offsite supervision, banks are required to submit, to the BOG, a variety of statistical data at regular intervals, including data on large exposures, non-performing loans and connected lending. The banks are generally complying with the reporting requirements, although reports are not always submitted on time. The Bank Supervision Department (BSD) of the BOG has been strengthened with staffing levels more than doubled to over 80 and supervisory skills upgraded through training. Regular on site examinations are now taking place in line with the requirements of the Banking Law which stipulates that the BOG must examine each bank at least once a year. Bank examinations are able to investigate the accuracy of

the banks' reports to the BOG, including the veracity of their loan classification. Supervisors claim that they are under no government pressure to regulate the government owned banks less stringently. The new Bank of Ghana law gives BOG that independence. While the reforms are likely to have considerably improved bank regulation and supervision in Ghana, how effective the prudential system has become with regards to the closure of BHC and Coop Bank in 2000 is subject to debate.

The banking system has been relatively easy to supervise during the 1990s for two reasons:

First, because of the very high reserve requirements and the availability of high yielding government and BOG securities, all of the banks have adopted conservative asset management with lending and other risk assets forming a small share of their total portfolios (loans amounted to only 20% of the banks' total assets in 1994). As such the scope for imprudent banking behaviour has been limited.

Second, the numbers of banks which the BOG has had to supervise has not been large: during 1991-1994 there were only 14 banks operating in Ghana and currently we have 21 banks. Hence supervisory resources were not dissipated among numerous banks.

The regulators have not been faced with a rapid expansion of small local private sector banks, as occurred in Kenya, Nigeria and Zambia, which, given the experience in these countries, would have been more vulnerable to financial distress and would have required intensive supervision.

The financial fragility in the banking system has increased in the late 1990s and early 2000s, for two reasons. First, new entrants into banking markets, the growth of NBFIs, and the privatisation of public sector banks are likely to increase competition and squeeze interest rate, and hence profit, margins. Second, decline in interest rates on government securities, due to the improvement in the fiscal position, now the banks hold a larger share of risk assets in their portfolios in order to maintain earnings. Most of the prime borrowers in the economy are likely to bank with the well established banks, especially those with strong foreign connections, leaving the new entrants among the banks and NBFIs, and possibly the weaker public sector banks, to service the least creditworthy segments of the credit market, as has happened in other countries in Africa such as Kenya. The challenges facing the regulators will intensify as a consequence.

Excluding the banks participating in the restructuring exercise, there have been three cases of distress among FIs during the 1990s. The Bank for Credit and Commerce (the Ghanaian subsidiary of BCCI which was closed down by regulators in the UK and USA in 1991) became technically insolvent since 1991 as a consequence of incurring a large foreign exchange liability, and was managed under BOG supervision for some time has been closed down. The local subsidiary of Meridien BIAO was closed in 1995 after incurring a large foreign exchange exposure to its parent bank (similar foreign exchange exposures to the parent bank were incurred by Meridien BIAO subsidiaries in other African countries such as Kenya, Zambia and Tanzania). The bank was put into liquidation in April 1995. Meridien was recapitalised by local shareholders, SSNIT and the Ghana Reinsurance Organisation, and reopened under the name of ***The Trust Bank.***

The authority of the BOG to control Meridien's imprudent foreign exchange exposures may have been impeded because the 1989 Banking Law does not impose

specific limits on foreign exchange exposures, but the main problem facing the regulators was probably their ability to detect and prevent the exposure before it was too late. The BOG has set up a unit to monitor foreign exposures in the banking system and is considering issuing regulations to the banks limiting such exposures.

The third case of FI distress occurred in 1996 when Securities Discount Company Investments (SDCI) was put into liquidation because of the non servicing of many of its loans. SDCI was a subsidiary of the Securities Discount Company (SDC), a discount house set up in 1991, with equity participation from SSNIT, the International Finance Corporation, GCB and two of the merchant banks established in Ghana in the late 1980s; CAL and Ecobank. It was alleged that SDCI had not received a license to operate as a finance house under the 1993 NBFI Law (and therefore was not licensed to extend loans), had violated the exposure limits of the NBFI Law, had extended credit to one of its directors, and that about half of its loan portfolio had been extended without any, or adequate, security (Public Agenda, 18-24/3/96 and 24-30/6/96). The BOG had been unable to prevent SDCI's infringements of the NBFI Law, partly because its NBFI supervisory capacities were not fully operational when the infringements took place and partly because SDCI's activities had begun in 1992, before the NBFI Law came into force.

The BCC, Meridien BIAO and SDCI and the close down of Bank for Housing and Construction and Cooperative Bank in 2000 cases point to what may be a significant change in the nature of potential threats to the financial soundness of FIs in Ghana. Whereas the main cause of bank distress in the controlled financial system existing before the financial sector reforms was political interference in government controlled banks, in a liberalised, predominantly private sector owned

financial system, foreign exchange exposures and insider lending may prove to be more important.

3.3.3 Financial Liberalisation

Since 1987 financial markets have been progressively liberalised in Ghana. Liberalisation has entailed the removal of controls on interest rates and the sectoral composition of bank lending, and the introduction of market based instruments of monetary control. New FIs, including several merchant banks with private sector participation, have been licensed and the latest phase of liberalisation involves the partial privatisation of government owned banks. This section outlines the main components of financial liberalisation in Ghana and evaluates their impact on banking markets. We discuss whether liberalisation has led to positive real interest rates, boosted deposit mobilisation, enhanced the efficiency of loan allocation, stimulated competition and improved services.

3.3.3.1 Liberalisation of Interest Rates and Credit Directives

Interest rates were partially liberalised in 1987 with the removal of maximum lending rates and minimum time deposit rates. Minimum savings deposit rates were removed in the following year as were all the sectoral credit guidelines with the exception of the stipulation that at least 20% of each banks' loan portfolio be allocated to agriculture. This was removed in 1990. Controls on bank charges and fees were also abolished in 1990. The bank specific credit ceilings, which had been the main instrument of monetary control employed during the ERP, were removed in 1992, and replaced with an indirect market based system of monetary control involving the weekly auctioning of Treasury bills and other government and BOG securities, backed up with statutory cash reserve and liquid asset requirements

(Alexander et al, 1995, pp47-49).[21] Hence by the early 1990s banks were free to price deposits and loans and to allocate loans according to market criteria, although the very high reserve ratios imposed by the BOG were a major constraint on the volume of credit they were able to extend until July 2005 where the secondary reserve has been reduced from 35% to 15%.

3.3.3.2 New Entry into Financial Markets

There have been several new entrants into banking markets since the reforms began. Two merchant banks - Continental Acceptances (CAL) and Ecobank - began operations in 1990: both are joint ventures involving local public sector shareholders and foreign shareholders. A foreign commercial bank - Meridien Bank BIAO - was set up in 1992 with a minority local shareholding by the Social Security and National Insurance Trust (SSNIT). Two more merchant banks commenced operations in 1995: First Atlantic and Metropolitan and Allied. Recently four Nigerian banks have entered into the industry and it is expected that the competition is going to be intensified. The number of banks has increased from 11 as at 1989 to 21.

In addition to the new entry into banking markets around 20 NBFIs, including leasing companies, finance houses, building societies and savings and loan companies, have been established during the 1990s. Many of these NBFIs accept deposits and extend credit, and therefore provide some competition for the services offered by the banks.

3.3.3.3 Real Interest Rates and Deposit Mobilisation

Interest rate liberalisation has not had a marked impact on the level of real deposit rates, in part because administered nominal rates had already been raised in 1984 by the BOG in an effort to stimulate financial savings. There have been substantial variations in the level of real interest rates since the late 1980s, reflecting fluctuations in inflation rates and the considerable contemporaneous differences between the nominal rates offered on different classes of bank deposits since interest rates were liberalised. High rates of inflation have impeded the attainment of positive real deposit rates. When inflation rates have fallen to around 10%, as in 1992, real deposit rates have been positive.

Table 3. 5: Nominal and Real Deposits Rates (%)

Year	Inflation	Nominal Deposit Rates		Real Deposit Rates	
		Lowest	Highest	Lowest	Highest
1989	25.2	15	21	-10.2	-4.2
1990	37.2	14	24	-23.2	-13.2
1991	18.0	10.6	25.2	-7.4	7.2
1992	10.1	11	24	0.9	13.9
1993	25.0	15	32	-10.0	7.0
1994	24.9	13.8	31	-11.1	6.1
1995	58.50	21.5	37	-37.0	-21.5

The lowest interest rate is the lowest rate offered on savings deposits.
The lowest rate is the highest rate offered on fixed deposits.
Source: Bank of Ghana (various issues)

But when inflation has been higher, as in 1987-91 and 1993-95 and 1999 and 2000, the nominal interest rates paid on savings deposits and the lowest rates paid on fixed deposits have generally been well below the prevailing inflation rates. Consequently bank deposits have not offered very attractive returns to most savers. Not surprisingly there has been only a very limited degree of financial deepening in

the banking system since the reforms began. Bank deposits increased from 10.4% of GDP in 1986 to 12.8% of GDP in 1994. Currently it is picking up.

3.3.3.4 Credit Allocation

The liberalisation of controls over interest rates and credit allocation, together with the adoption of a more commercially oriented approach to lending by the public sector banks should enhance the efficiency of credit allocation: ie enable banks to direct credit towards those borrowers capable of generating the highest rates of return. It is likely that credit allocation has improved – currently the improvements in the level of banks' NPAs suggests that banks are generally avoiding lending to commercially unviable projects -although this is probably due more to the institutional reforms undertaken by the public sector banks than by liberalisation of administrative controls.

The main constraint to an increase in the efficiency of credit allocation by the banks has been macroeconomic instability particularly in the 1999 and 2000, as in several other African countries undertaking financial sector reforms. Large fiscal deficits, financed partly through domestic borrowing, and unsterilised balance of payments surpluses have led to relatively high and variable rates of inflation and high nominal interest rates in the 1990s.

Although ex post real lending rates have not always been very high (and sometimes been negative), the combination of nominal lending rates of up to 39% and high but unpredictable inflation entails considerable risk for borrowers. Consequently loan demand has been depressed while the banks have been reluctant to expand their lending, instead investing in government and BOG securities. Government

securities have offered the banks returns which have often been comparable to prevailing lending rates, without the risk involved in lending to the private sector. Bank lending has also been constrained by the high reserve ratios imposed by the BOG in an attempt to restrain monetary growth. Bank lending to the private sector has remained at very low levels since the financial sector reforms began, amounting to only 5.3% of GDP in 1994 (table 3.2). The private sector has to a large extent been crowded out of credit markets by the public sector's borrowing requirement.

3.3.3.5 Competition and the Efficiency of Banking Services

Liberalisation could stimulate greater competition in banking markets through several channels. These include the new entry into banking markets outlined above, the diversification of the operations of the DFIs away from purely specialised functions, the universal banking business, the removal of interest rate controls and credit ceilings, which should allow banks greater freedom to compete for customers, and the privatisation of government banks; private sector banks might be expected to compete more aggressively against each other than banks owned by the public sector. New entry has brought about a small reduction in market concentration in the banking industry. The share of the largest four banks in total bank deposits fell from 76% in 1988 to 70% in 1994 and currently stands about 60%. However, the industry remains highly weak oligopolistic. Until 2000, competition was limited to the segments of the deposit and credit markets involving corporate and institutional customers: most of the new entrants have been in merchant banking rather than retail banking and the established commercial banks have reduced their retail branch networks. Liberalisation had not yet had a major impact on innovation in banking markets or the quality of services offered to the public. Until recently in the 2000s, there had been very little innovation in terms of

the range of instruments and services provided. Only very basic savings and lending instruments are available from the banks. Interest bearing chequeing accounts are generally only available to customers with very large deposits (World Bank, 1994, p61). However the NBFIs have introduced some new credit instruments, such as leases.

A large volume of money is remitted to Ghana by Ghanaians working abroad, and now the banks have provided adequate facilities to attract this business. Transferring money from abroad through the banks is now on the increase through Western Union, Vigo and Moneygram. Until recently the failure of financial liberalisation to stimulate greater improvements in the range and quality of retail banking services requires some explanation. It may be attributable to the lack of competitive pressures on the banks which have been able to generate profits during the 1990s, mainly from investing in securities, without having to compete vigorously for either deposits or borrowers. It is also possible that the very low usage of the banking system by the public (as indicated by the lack of financial depth) makes the introduction of innovative retail services uneconomical. In turn the public are deterred from using the banks, partly because services are poor, but also because holding bank deposits is unattractive given the high rates of inflation. It is likely that the current macro economic stability will enhance greater competition and improve retail banking business.

In summary, financial liberalisation has been pursued progressively in Ghana through the following:

- ⇒ Abolition of credit controls
- ⇒ Removal of ceilings on interest rates

⇒ Liberalization of the exchange rate of the cedi

⇒ Gradual privatization of government interest in the banking sector

⇒ Improvement of the legal framework for the governing of the financial sector

⇒ Bank of Ghana act giving independence to the Central Bank

⇒ Creation of the Monetary Policy Committee and the determination of the prime rate to serve as a signal rate to the lending institutions

⇒ Sovereign credit rating by S & P(B+) and Fitch Ratings (B+)

⇒ Bills in waiting to boost the financial sector include Exchange Control Act, Credit Reporting Bill and the Anti-Money Laundering Bill

⇒ Establishment of the Ghana Stock Exchange and subsequently the Securities Exchange Commission

⇒ Mutual Fund Bill and Long Term Savings Bill introduced

⇒ Concept of positioning Ghana as a financial hub in the sub-region mooted

3.4 The Impact of Reforms on Financial Sector Performance

As we have indicated, the primary object of financial sector reforms was to improve on financial service delivery in African countries and facilitate the development of monetary policy. However, we have seen that the outcomes were often far less successful than anticipated. We discuss here the extent to which these objectives were achieved in terms of sector performance. The situation can be summed up as follows: financial product development continues to be slow and narrow in many countries and the delivery of such products is unsatisfactory; savings mobilization efforts have yielded inconsistent outcomes; credit delivery remains the archilles heel of financial systems; failing banks and banks in distress continue to be common.

While there may be some diversity in the outcomes of the restructuring efforts in various economies, the differences are not very significant. Essentially, the functions of savings mobilization and financial intermediation have not fully recovered since reforms were initiated (Nissanke and Aryeetey 1998; Haque, Hauswal, and Senbet 1997). Nissanke and Aryeetey suggest that widespread risk continues to be a major feature of the markets; the infrastructure for financial service delivery has not significantly improved; and the environment for regulation and supervision remains inadequate. Even in Ghana and Malawi, where reforms have been relatively orderly, most banking institutions have not developed the capacity of risk-management and still operate with inadequate information base. We first look at the financial deepening.

3.4.1 Financial Deepening

Financial deepening measures the development of the financial sector and how it is able to mobilise funds within the economy. It also reflects the extent to which the financial sector is liberalised and the degree to which all forms of government-imposed restrictions have removed. In a developed or liberalised financial system, the banks will be able to offer attractive interest rates that will attract borrowers. Financial deepening can only be improved when there is credible and sustained macroeconomic stability since this creates increased demand for money. In most Asian countries where financial sector reforms have taken place (Indonesia, for example), the ratio of broad money to GDP as a measure of financial deepening rose significantly from 9% in 1983 to over 40% in 1991. In African, and in Ghana where securities market are not well developed, governments borrow from banks to finance deficits, thereby reducing the credit available to the private sector and constraining its level of activity.

There has been an improvement in financial deepening in Ghana since 2001. This is largely due to the improvement in the macroeconomic performance of the economy. In the early years of FINSAP and in the 1990s, the M2/GDP ratio averaged around 19% which was far below the Africa average of 22%. This was largely due to the fiscal slippages. In the four countries that Nissanke and Aryeetey (1998) studied, they observed that expected positive effects from liberalization in savings mobilization and credit allocation had been slow to emerge. Both the M2/GDP ratio and the private credit/GDP ratio to measure financial deepening showed clear upward trend in any of those countries. In Nigeria, both indicators worsened considerably in the reform period. Indeed, in most countries, credit as a proportion of GDP declined in the reform years, even if the share of credit to the private sector rose. Among the better performing African nations are Kenya and Zimbabwe which had credit/GDP ratios that exceeded 30 percent in 1996. The low credit GDP ratios for the African countries may be compared to 50 percent in Indonesia and 75 percent in Malaysia at that time. There has not yet been a clear upward trend in the indicators of financial deepening since the implementation of liberalization measures and bank restructuring to restore banks' commercial viability.

Although the public sector's share in domestic credit declined in many countries, government and public enterprises for long continued to receive the largest proportion of bank credit. In Ghana, for example, despite a reduction in the claims of commercial banks on the government and the public sector, lending to the public sector has remained very important to this day (See Table 3.4). The sharp drop in 1996 and 2002-2003 for government credit was due to a special effort to control inflation by enhancing private sector production following major criticisms of

government, but this went up again in 1997 -2000 due to macroeconomic instability.

Table 3.6: Money and Quasi Money (M2) as % of GDP

	1980	1990	1996
Benin	17	24	23
Botswana	26	26	25
Cameroon	21	23	13
Cote d'Ivoire	27	29	27
Ethiopia	..	37	40
Ghana	16	13	15
Kenya	30	27	41
Malawi	18	18	15
Mozambique	..	40	32
Nigeria	24	19	17
Senegal	27	23	20
South Africa	50	54	54
Tanzania	..	19	23
Uganda	13	6	10
Zambia	28	20	16
Zimbabwe	31	28	26

Source: **World Bank, 1998 World Development Indicators, Washington DC.**

Table 3.7 : Financial Deepening (1996-2004)

Year-End	Nominal M2+ (¢bn)	Nominal M1+ (¢bn)	Currency Cu (¢bn)	Private Sector Credit (¢bn)	Nominal GDP (¢bn)	M2+/ GDP	M1+/ GDP	Cu/GDP	Cu/M2+	PSC/GDP
1996	1,785	1,215	724	680	9,167	19%	13%	8%	41%	7%
1997	2,506	1,766	982	1,070	13,863	18%	13%	7%	39%	8%
1998	3,903	2,070	1,084	1,639	17,157	23%	12%	6%	28%	10%
1999	4,897	2,193	1,272	2,466	20,580	24%	11%	6%	26%	12%
2000	7,248	3,517	2,636	3,826	27,153	27%	13%	10%	36%	14%
2001	10,248	5,122	3,090	4,472	38,014	27%	13%	8%	30%	12%
2002	15,368	8,218	4,672	5,864	47,764	32%	17%	10%	30%	12%
2003	21,174	11,373	6,338	8,052	65,262	32%	17%	10%	30%	12%
2004	26,686	14,603	7,303	9,778	78,650	34%	19%	9%	27%	12%

Source: Bank of Ghana Statistical Bulletin

Table 3.8: Credit to Private Sector (% of GDP)

	1980	1990	1996
Benin	29	20	9
Botswana	11	10	11
Cameroon	30	27	8
Cote d'Ivoire	41	36	20
Ethiopia	..	24	22
Ghana	2	5	7
Kenya	29	33	35
Malawi	21	12	4
Mozambique	..	32	18
Nigeria	12	9	11
Senegal	42	27	16
South Africa	60	85	137
Tanzania	..	16	3
Uganda	4	..	5
Zambia	20	9	9
Zimbabwe	33	30	35

Source: **World Bank, 1998 World Development Indicators on CD-ROM, Washington DC**

Table 3.9: Distribution of Total Domestic Credit in Ghana (%)

Year	Central Government	Public Enterprise	Private Sector
1986	64.2	16.9	15.5
1987	76.4	9.8	11.4
1988	75.8	4.13	16.9
1989	45.2	16.9	34.1
1990	47.1	11.8	37.4
1991	68.7	12.0	19.3
1992	68.3	10.8	20.7
1923	72.8	8.8	18.4
1994	62.7	14.7	22.6
1995	60.6	12.8	22.6
1996	21.5	16.2	62.3
1997	39.1	6.1	54.8
1998	56.5	5.0	38.5
1999	54.5	6.7	38.8
2000	53.7	11.2	35.2
2001	49	14.4	36.6
2002	45.6	8.3	46.1
2003	32.6	16.7	51.7
2004	33	17.8	49.2

Source: **Compiled from Bank of Ghana Data**

Table 3.10: International Comparison of Selected Banking and Institutional Indicators (In percent, unless otherwise indicated as at 2003)

	Ghana	Kenya	Mozambique	Nigeria	South Africa	Tanzania	Uganda	Zambia	SSA Average
Size of Financial Intermediaries									
Private Credit to GDP	11.8	26.8	16.7	14.4	147.2	4.9	4.0	7.5	15.2
M2 to GDP	19	43.8	5.1	25.8	87.2	18.3	13.0	16.9	24.8
Currency to GDP	10.5	13.2	15.6	10.8	28.4	8.5	8.8	6.4	13.9
Banking Industry									
Number of Banks	17	53	10	51	60	29	15	16	-
Net Interest Margin	11.5	5.0	5.9	3.8	5	6.5	11.6	11.4	8.3
Overhead Costs	7.3	3.7	4.5	7.4	3.7	6.7	4.6	11.2	5.7
Foreign bank share (asset)	53	4.8	98	11	0.6	58.7	89.0	66.6	-
Bank concentration (3 banks)	55.0	61.6	76.6	86.5	77	45.8	70.0	81.9	81.0
Non performing loans (share of total loans)	28.8	41	-	17.3	3.9	12.2	6.5	21.8	-
Capital markets									
Stock Market Capitalisation (% of GDP)	10.1	9.2	-	10.9	77.4	4.3	0.6	6	21.3
Contract enforcement									
Number of Procedures	21	25	18	23	16	26	14	1	29
Duration (Number of Days)	90	255	540	730	99	207	127	188	334
Bankruptcy									
Time in Years	-	4.6	-	1.6	2.0	3.0	2.0	3.7	3.5
Credit Market									
Credit Rights Index (0 is weakest)	1	1	3	1	2	3	1	2	2
Entry Regulations									
Number of Procedures	10	11	16	9	9	13	17	6	11
Duration (number of days)	84	61	153	44	38	35	36	40	72
Cost (percent of GNI per capacity)	111	54	100	92	135	9	199	24	255

Source: IMF, *International Finance Statistics*; Bank Scope; World Bank, *World Development Indicators*; Doing Business Indicators Database; "Tanzania Financial System Stability Assessment" IMF Staff Country Report No 03/241. Washington D.C IMF (2003). Banking Statistics and Capital market indicators are for 2001. All institutional indicators are for 2003.

3.4.2 Macroeconomic Management

The expected impact of a liberal interest rate regime on the monetary situation was seldom achieved as the ability of the monetary authorities to achieve set targets was often compromised by an ineffective broader policy environment (Roe and Sowa 1997; Nissanke and Aryeetey 1998). In the presence of shallow financial markets and a poor development of money markets, rising interest rates often quickly led to a credit crunch, and in many instances to considerable excess liquidity, i.e., situations in which banks voluntarily increased their holdings of liquid assets on a large scale. Indirect monetary management has been difficult in many countries, with some improvements only being observed lately. Authorities showed considerable difficulty in the handling of inflation in the reform years.

However, it is apparent that an unstable macroeconomic environment would not be very helpful to financial sector reforms and indirect monetary management. In a number of countries, the macroeconomic environment has remained quite fragile. This continues because various external shocks and political pressures often lead to a breakdown of fiscal and monetary discipline.

Unable to restrain inflation, which until recently exceeded 40 percent in 2000 before it dropped to 11.8% in 2004, achieving positive real interest rates has been difficult, despite rising nominal rates. The rising interest rates have not led a marked growth in deposits in countries with considerable macroeconomic instability, such as Ghana. Indeed, it is the fiscal imperatives that have often created difficulties for the monetary and financial sector.

3.4.3 Interest Rates and Spreads

The financial sector reforms and liberalization sometimes yielded a desired outcome – the emergence of *positive real interest rates* (as expected). However, the desired results of increased investments and savings have not been in abundance in Ghana. Indeed, the financial systems are characterized by exorbitantly high real rates of interest and shrinkage of commercial lending by banks, in favour of banks holdings of government securities. In addition, the lending – savings margins have been dramatically high. The prevalence of exorbitantly high *real* lending rates and continuing increase in the lending-deposit rate margins is particularly disappointing (See Table 2.6).

Under the reform programs, an initial increase in the spread between lending and deposit rates was anticipated. In other words, banks needed time to reshape their cost structures within the changing environment. The spread was, however, expected to narrow as more efficient business practices were adopted following increasing competition and as credit demand stabilized. But in most countries, lending rates did not only rise sharply during the reform years; they rose much faster than deposit rates. Indeed, more than a decade after reforms were started, the spread between the two continue to widen in many countries. The issue of steady rises in lending rates under different monetary and fiscal regimes continues to be one of the most interesting outcomes of financial sector reforms in Africa.

Table 3.11a: Interest Rate Spread (lending rate minus deposit rate)

	1980	1990	1996
Benin	8	9	..
Botswana	3	2	4
Cameroon	6	11	..
Cote d'Ivoire	8	9	..
Ethiopia	..	4	5
Ghana	8	9	10
Kenya	5	5	16
Malawi	9	9	19
Nigeria	3	6	..
Senegal	8	9	..
South Africa	4	2	5
Tanzania	8	..	24
Uganda	4	7	10
Zambia	3	9	12
Zimbabwe	14	3	13

Source: World Bank, 1998 World Development Indicators, Washington DC.

Table 3.11b : Selected Commercial Bank Interest Rates, 2000 and 2004

	Deposit Rate		Lending Rate		Spread	
	2000	2004	2000	2004	2000	2004
Gabon	5.0	5.0	22.0	18.0	17.0	13.0
Ghana	16.8	7.5	47.0	28.8	30.2	21.3
Kenya	8.1	2.4	22.3	12.5	14.2	10.1
Mauritius	9.6	8.2	20.8	21.0	11.2	12.8
Mozambique	9.7	9.9	19.0	19.2	9.3	9.3
Nigeria*	11.7	13.7	21.3	19.2	9.6	5.5
Tanzania*	7.4	4.2	21.6	13.9	14.2	9.7
Uganda	9.8	7.7	22.9	20.6	13.1	12.9
Zambia	20.2	11.5	38.8	30.7	18.6	19.2

Source : International Financial Statistics, IMF* For Nigeria and Tanzania, the central bank prime lending rate is shown

Table 3.11c : Decomposition of Interest Spread in Ghana

	Dec-04	Dec-03	Dec-02	Dec-01	Dec-00
Interest Income	**29.35**	**30.94**	**33.36**	**42.79**	**35.04**
Cost of Funds	5.17	6.34	5.89	11.32	9.84
Total Spread	**24.18**	**24.60**	**27.47**	**31.47**	**25.20**
Overhead Cost	8.93	7.86	9.95	7.26	6.05
Loan Loss Provisions	2.93	3.72	4.36	5.86	3.85
Cost of Prim Reserve Requirements	2.90	3.06	3.30	4.23	3.47
Taxation	3.29	3.49	3.45	4.94	4.14
Profit Margin	**6.13**	**6.47**	**6.41**	**9.18**	**7.69**

Source : Audited Accounts

3.4.4 Restructuring of Banks and Banks Distress

The balance sheets of many banks saw some growth in shareholders' funds in the reform years. This growth in shareholders' funds reflected the re-capitalization of those banks. In Ghana, for example, average shareholder capital has been well above the 5% minimum (but usually below 15%) since 1988. State-owned development banks have averaged a relatively high 12%, as a result of government re-capitalization schemes.

The portfolios of banking institutions continue, however, to be dominated by an extremely high incidence of non-performing loans and excess liquidity. In Nigeria, while there has been little sign of real progress for deposit mobilization and credit allocation to productive investment since liberalization measures were first adopted in 1987, distress among banks has been one of the most severe in the whole region. Thirty-seven Nigerian banks, accounting for one third of commercial and merchant banks, were identified as distressed with non-performing assets in 1994. Distress

among banks is evidently growing among African banks as evidenced by recent occurrences among Kenyan commercial banks. In Ghana, even though the World Bank (1998) has identified as many as three state-owned banks as distressed since 1995, the government has not allowed them to go under after all attempts to recapitalize them failed. Two of such banks in Ghana were closed down in 2000 as a result of non-performing loans.

The persistence of these conditions, despite radical changes in the policy environment, can be explained by constraints that prevent improvement in banks' operational practice. Operational practice is a function of many parameters, such as risk-aversion, net worth, asset quality and intermediation efficiency measured in terms of loan transaction costs. In addition, it is affected by externally imposed factors, such as a poor information capital base and policy uncertainty and credibility; and these have not changed much under recent reform programs.

3.4.5 Money and Capital Markets Development

A major reason for the poor functioning of money markets (particularly in the 1990s) is government financing approaches. That practice of governments issuing large quantities of very high-yielding bills to meet fiscal requirements was seen as a problem. Indeed, so long as banks have access to inexpensive and unlimited loans through central bank discount facilities, inter-bank borrowing and lending are unlikely to be attractive.

On the other hand, the reforms have yielded a positive outcome in terms of growth of the number of stock markets. There are about sixteen stock markets, and they have become a basis for the commensurate introduction of Africa–based funds

trading in New York and Europe. The stock markets have emerged as a real potential for integration of Africa into the global economy. However, the markets are very illiquid and remain the smallest of any region in terms of capitalization, except South Africa (Senbet 1997). The issue of liquidity and functionality of the capital markets is not the focus of this work.

S0o far the gains from the reform in Ghana are in terms of releasing more resources to the private sector, lower rates of inflation and modest improvement in real interest and rate. The credit for these gains owes much to the consistency in program implementation since 2001. This ensured a progressive improvement in the financial and macroeconomic indices. The discipline of government in cutting down the budget deficit and borrowing less from the financial system also helped. A clearer picture of the state of the financial system that resulted from the reform and of its linkage with the real sector will however emerge if the reform is further implemented with the past zeal and zest.

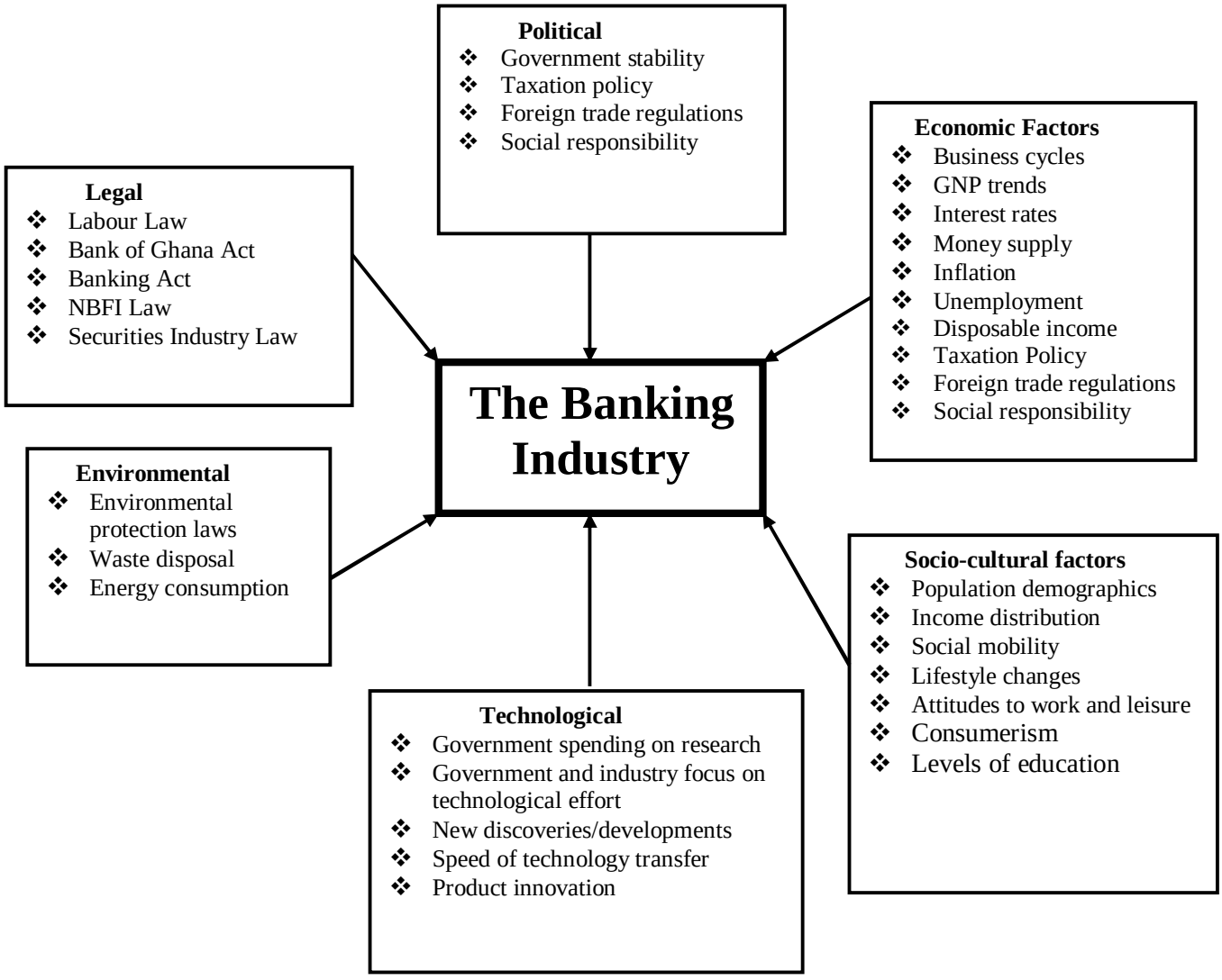
3.5 Environment, Competition and Performance

This section reviews the external environment within which Banks in Ghana operate. This will be followed by structure, competition and performance.

3.5.1 Competitive Environment

Macro-environmental influences- The PESTEL Framework

Fig 3.1: Macro-environmental influences – the PESTEL



This section looks at the macro-environmental influences that might have affected banks in Ghana. The PESTEL framework which is used in this analysis categorized

environmental influences into six main types: political, economic, social, technological, environmental and legal.

3.5.1.1 Political

- ⇒ The country has enjoyed stable democracy since 1992 and this is expected to continue as the government in power is committed to rule of law, democracy and market based economy.
- ⇒ A vibrant opposition is in parliament and an independent electoral commission ensures that political parties abide by a code of practice, which is in consonance with democratic governance.
- ⇒ The judiciary is relatively well respected and independent; its reputation continues to suffer from the political interference of previous decades.
- ⇒ A vibrant and independent media, which operates freely, is demonstrated by the sharp increase in the number of both print and electronic media in the country.
- ⇒ With Ghana being a member of ECOWAS and Mohammed Ibn Chambers as the organization's secretary, Ghana will continue to play a leading role in the regional affairs.

3.5.1.2 Social

- ⇒ The final data from the 2000 population and housing census released in March 2002 revealed a total population of 18.9 million and a population growth rate of 2.7% per annum since the last census in 1984.
- ⇒ Data from statistical service shows that poverty declined in the 1990s. Using an income of $110 per year as a poverty line, the percentage of Ghanaian population defined as poor declined from almost 52% in 1991-19 to just

below 40% in 1998-99. The decline was not distributed evenly in terms of geographical location as the reduction in poverty concentrated in Accra and forest zones. The regions with the lowest per head are Northern, Upper East and Upper West.

⇒ The country has a large number of unemployed youth especially among university graduates, a phenomenon that is explained by the non-fit between skill set and industrial labour requirements.

⇒ Health services in Ghana are severely under resourced. According to the UN; healthcare expenditure was just $51 per head in 2000. There are just six physicians per 100,000 people and skilled healthcare personnel attended only 44% of birth. The government estimates that only 45% of the rural population has access to health services.

⇒ The private sector is not growing as fast as expected mainly lack of capital and competition from global businesses.

⇒ Ghanaians are very religious and the government upholds freedom of worship.

⇒ There is existence of HIV/AIDs however not on a scale as of other countries, but the government is taking the threat posed by the pandemic seriously and has committed 15% of healthcare budget to it.

3.5.1.3 Economic

⇒ The government continues to pursue policies aimed at improving the macro economic environment with the World Bank having a strong influence on its programmes. Much progress has often been undone in the election years when the pressure to spend freely has been too tempting. These fiscal lapses during election years have caused the

government problems that have proved difficult to resolve in subsequent years particularly during 1996 and 2000 elections. Nonetheless, IMF programmes have remained in place for most of the past eight years.

⇒ Agriculture continues to be the mainstay of the economy, employing about 60% of the labour force and contributing around 30-40% of GDP. The agricultural sector is vulnerable to shocks caused by the fluctuations in world commodity prices and diseases. Attempts to diversify the sector have yielded minimal results although the potential do exists.

⇒ The main challenge for the government in adhering to the GPRS is to meet the agreed fiscal targets. Since Ghana's return to multiparty democracy in 1992, its overall fiscal performance has deteriorated compared with the late 1980s. In 2000 the budget deficit was equivalent to 8.5% of GDP, the largest since 1979. The rising deficits were caused mainly by rapid increases in government spending (particularly ahead of the election in 2000), on wages and interest on government debt, against a backdrop of stagnating revenue. The strengthening of the revenue agencies and HIPC relief helped reduce the fiscal deficit to 5.3% of GDP in 2002, better than the original budget projection of 6.9% of GDP. The fiscal deficit is projected at …% of GDP for 2006. It is expected that by reducing the deficit to this level, the government will be able to eliminate the need for domestic financing, the stated goal of the budget.

⇒ During the latter part of 1990s, the monetary policy followed by the BoG was aimed at sustaining the declining trend in inflation, which began in 1996. The bank therefore permitted only moderate growth in the money supply, which brought year-end inflation to 15.7% in 1998 to 13.8% in 1999. The central bank was also able to slow down monetary

growth through the intensification of open market operations, and complemented this with deposit auctions and the introduction of new instrument, such as repurchase agreements and swaps. However, financing the rapidly growing fiscal deficit eroded all the gains achieved from earlier policies during the fourth quarter of 2000, when a sharp increase in money supply pushed the year end growth rate of broad money supply to 38.4%. Monetary policy focused on reducing inflation and slowing down the depreciation of the cedi in 2001 and 2002, and open market operations were intensified. This continues because various external shocks and political pressures often lead to a breakdown of fiscal and monetary discipline.

Table 3.12: Inflation, Consumer Prices (annual %)

	1987	1998	1999	2000	2004
Inflation rate	20.8	15.7	13.8	40.5	11.8
Real GDP Growth	4.2	4.7	4.4	3.7	5.2
Budget Deficit/GDP	-8.3	-6.1	-6.6	-7.0	n/a
Depreciation rate	22.7	-4.1	-33.0	-91.5	-2.2

Source: Ministry of Finance

Unable to restrain inflation, which until recently exceeded 40 percent in 2000 before it dropped to 11.8% in 2004, achieving positive real interest rates has been difficult, despite rising nominal rates. The rising interest rates have not led a marked growth in deposits in countries with considerable macroeconomic instability, such as Ghana. Indeed, it is the fiscal imperatives that have often created difficulties for the monetary and financial sector.

⇒ The cedi has remained relatively stable against the US dollar (Ghana's main trading currency) in the last three years depreciating by about 5%, in contrast with developments in 2000 when the cedi depreciated sharply (49%). The rate of the cedi against the pound sterling continues to be influenced by international GBP/USD cross rates. The strength of the GBP against the USD has put the depreciation of the cedi against the GBP at 16%.

⇒ Inflation, which was 15.2% in January 2005, peaked at 17.3% in March due to the impact of increases in fuel prices. But this has assumed a decline trend hitting 14.8% by the end of 2005 and has hit a single digit by the end of the first quarter of 2006. The increasing stability of the exchange rate and tight monetary and fiscal policy has contributed to this trend in inflation. Inflation is expected remain at a single digit by the close of 2006. The only uncertainty is the effects of the crude oil price at the international market and the local deregulation of oil market.

⇒ Interest rates have dropped from high figures above 40% in 1990s to 9.68% in the first quarter of 2006.

⇒ A rigorous tax regime is currently prevailing. VAT was introduced in 1995 and was pegged at 10%. This has moved up 15%. The reconstruction levy has reduced from 10% in 2001 to 7.5% in 2003 and has further dropped to 5.5%. This, in addition to other measures, such as the enforcement of the withholding tax regulations is meant to improve tax collection to reduce the fiscal deficit.

⇒ Government has projected a real GDP growth rate of 6% for 2006. This may be achieved in view of the current macroeconomic stability.

⇒ The government in a move to manage its domestic debt burden introduced three-year inflation – indexed bond in 2001. This forms part of the secondary reserve requirements and banks have to compulsorily invest 15% of their deposits in these bonds. About 90% of these bonds mature in the last quarter of 2004 and the central bank is still silent on how it will finance the payment of revaluation gains, which have accrued over three years.

⇒ The bank of Ghana plans has increased the capital adequacy ratio from the current 6% to 10% and has already increased the minimum capital requirements for the banks operating in Ghana to GHC70billion (about US$8million).

⇒ The capital market continuous to be starved of Initial Public Offering (IPO). Only 29 companies are listed on the stock exchange market. Liquidity has remained extremely low; the volumes traded averaging only 0.3% of total market capitalization. Most retail investors are passive and public awareness of the GSE is relatively low. The bond market is under developed. Activity on the market has slowed down due largely the weak macroeconomic environment.

⇒ The divestiture of state owned corporations is on going albeit at a slower pace. Key corporations earmarked for divestiture are the State Insurance Company, which controls 65% of the insurance market, Ghana Oil Company, a petroleum distribution company that has about 17% market share. Also stated for divestiture are Ghana Commercial Bank (GCB), National Investment Bank (NIB), Agricultural Development Bank

(ADB), Tema Oil Refinery (TOR), Ghana Water Company, Electricity Company of Ghana (ECG) and Volta River Authority (VRA).

3.5.1.4 Technology

⇒ The technological landscape in Ghana has witnessed tremendous improvements with the telecom industry being the driving force though still expensive.

⇒ There are six service providers, three of which are mobile phones companies. Ghana Telecom continuous to expand into other areas of telecommunications industry.

⇒ Internet services providers are mushrooming as well as computer hardware and software vendors.

⇒ All banks use SWIFT technology. VSAT and satellites communications infrastructure have also been introduced to the market. The National Communications Authority has been established to regulate the telecommunication industry.

⇒ A national Information Technology Agency is soon to be established to provide a framework for the development and implementation of information technology and related activities in Ghana.

3.5.1.5 Environmental

⇒ Environmental protection laws have seen some improvement with the establishment of Environmental Protection Agency

⇒ Service provision of electricity is still poor with a lot of power fluctuation which had adverse effect on industries. There was energy crisis in 1998 as a result of a fall in the water level from Akosombo Dam. The source of

energy in Ghana is hydro and thermal and this not likely to change in the next decade.

3.5.1.6 Legal and Regulatory Environment

⇒ The banking sector is governed by the Bank Act 2004 which was passed in 2004 to replace Banking Law 1989, PNDC Law 225. It requires banks to submit periodic returns to the Banking Supervision Department of the Bank of Ghana and stipulates capital adequacy, liquidity, stated capital and lending requirements for banks. Bank of Ghana, the Central Bank is the only institution mandated in the country to grant banking licenses to new banks wishing to operate in the country. With the introduction of Universal Banking which provides all banks with equal opportunities to widen their product offerings, all existing banks which want to convert to Universal Banking will have to increase their minimum capital to ¢70.0 billion (about US$70billion). This threshold has also become the amount that all new banks will have to raise to be granted an operating license henceforth. New legislations passed in 2005 included the new Banking Bill and the Payments Systems Bill. The former is expected to provide a more effective supervision of the banking system by the Bank of Ghana whilst the latter is supposed to modernize the legal framework as well as improve the efficiency of the payments system.

⇒ New Labour Law in place, Labour Act 2003, Act 651. Before then, the industrial Relations Act 299 of 1965 and the labour Decree of 1967, NLCD 157 were the laws governing industrial relations in Ghana, as well as other laws scattered in various pieces of legislation. During this time, industrial relation matters and disputes settlement were the preserve of the Ministry of

Labour who did this through its Labour Department headed by the Chief Labour Officer.

⇒ Though there is improvement in the judiciary, there are lapses in the judgment delivery system as cases delay for at times more than four years.

3.5.2 Summary of Industry Characteristics

⇒ High degree of industry concentration-4 banks holds 68% of industry deposits and assets.

⇒ Currently 21 banks, 4 dominant, 6 in the middle and 11 small ones in terms of total assets and profitability.

⇒ Huge potential banking market, given the large un-banked informal sector and high margins-hence entry by new banks.

⇒ Increasing competition resulting from

- New entrants from Nigeria e.g. Standard Trust Bank, Zenith Bank, Guaranty Trust, Inter Continental Bank Plc.
- Potential entrants e.g. FNB of South Africa, Citibank
- New product launches – similar product offerings
- All banks have full functional Wide Area Network, Networked channels

⇒ Multi banking by corporates – intense price competition and adverse impact on margins

⇒ Introduction of universal banking (which enables all banks to engage in commercial as well as merchant banking) likely to intensify competition especially for the retail sector high net worth.

⇒ Predominantly cash based payment system – very expensive.

⇒ Mutual funds and capital market products could lead to disintermediation

⇒ Higher loan losses due largely to fragile economy (particularly in 1999 and 2000

⇒ Divestiture of Ghana Commercial Bank (GCB) may lead to significant increased competition

⇒ Very high reserve requirements – 9% primary and 15%, which act as implicit financial tax.

⇒ As interest margins and spreads collapse, the industry would generally look to non-interest income and rigorous cost management for its profit.

⇒ High operating cost arising from staff cost and operational infrastructure (technology).

3.5.3 Key Strategic Opportunities from environment

⇒ Universal Banking licence

⇒ Local product development

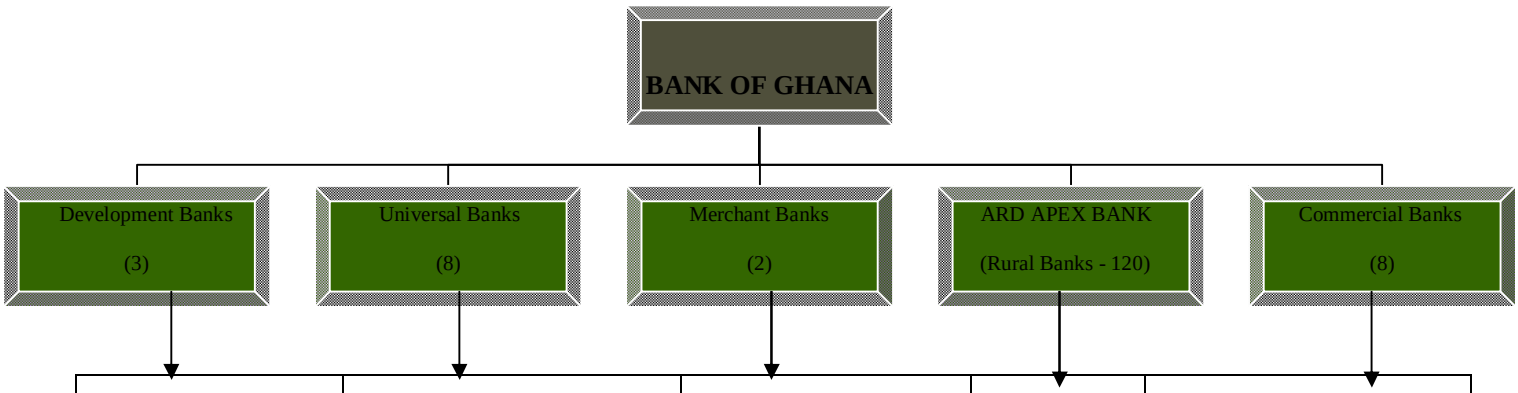
⇒ Cards business

⇒ Money Transmission service

⇒ Expansion into the West African Sub-region

3.6 Structure of the Banking Sector-2005

Fig 3.2: Structure of the Banking Sector -2005



Development Banks	Universal Banks	Merchant Banks	Rural Banks	Commercial Banks
Agric Dev't Bank	HFC Bank Ghana Ltd	Amalgamated Bank Ltd	120 RBs	Ghana Commercial Bank Ltd
Prudential Bank Ltd	Ecobank Ghana Ltd	First Atlantic Merchant Bank		SG-SSB Ltd
National Inv't Bank Ltd	Merchant Bank Ghana Ltd			Standard Chartered Bank Ltd
	CAL Bank Ltd			Barclays Bank of Ghana Ltd
	Stanbic Bank Ltd			Unibank Ghana Ltd
	Standard Trust Bank Ghana Ltd			Metropolitan & Allied Bank
	Guaranty Bank Ghana Limited			The Trust Bank Ltd
	Zenith Bank Ghana Limited			International Commercial Bank Ltd

The banking sector in Ghana comprises twenty-one (21) Deposit Money Banks (DMBs) and 120 rural banks. The DMBs includes eight (8) Universal banks, two (2) Merchant banks, three (3) Development banks and eight (8) Commercial Banks.

The banking industry in Ghana is undergoing rapid change driven partly by technological change and the rapid growth of competing non-bank financial institutions. Key features of the banking industry are as follows:

- A general lack of financial innovation;
- High spreads between deposit and lending rates;
- A re-emergence of non-performing loans assets portfolios.

- Limited credit facilities for private sector;
- A high rate of investment in government securities compared to loans and advances to the private sector;
- Low savings rate reflected in a high level of currency outside the banking system; and
- Efficient credit operations are constrained by the lack of a credit information system.

Competition in the industry has been keen over the past five years. The distinction between merchant banking, commercial and development banking became increasingly blurred as commercial banks and non-banking financial institutions such as discount houses were undertaking certain activities which traditionally, have been the preserve of merchant banks. The Central Bank of Ghana has authorized the adoption of Universal Banking Business (UBB) and therefore banks in the country are operating Retail, Corporate and Investment banking.

There is a strong indication that demand capacities still exist in the growing banking industry. The Financial and Banking sub-Sector is considered the backbone of capital accumulation. According to the Ghana Statistical Service, in 2002 and 2003, the Finance & Insurance sub-sector's contribution to growth in GDP was 5.2% and 4.3% respectively.

Total assets of the banking system (Assets of rural banks are not included) grew by 413.26 per cent (¢6,094.4 billion) from the December 2003 position to ¢31,279.9 billion. The growth in assets was driven principally by three banks which accounted for 41.2 per cent of the total increase.

The growth reflected mainly in net advances, investments and cash and short term funds, which went up by ¢2,242.7 billion ¢1,764.0 billion and ¢1,153.7 billion respectively. The increases in assets were financed by 29.9 per cent, 28.7 per cent and 14.1 per cent increases in Deposits and Shareholders' Funds & other liabilities respectively.

In 2002, the ARB Apex Bank was officially opened to provide "mini-central banking" services to the rural banks. The DMBs and the rural banks sub-sectors recorded significant growth in balance sheet. As at 31st December 2003, total assets of both the rural and community banks totalled ¢1,281.8 billion, representing an increase of 52.6% over the 2002 position of ¢840.2 billion. In 2003, there was an increase of 43.7% and 48.4% in Gross Loans & Advances and Investment in Government Securities respectively.

The Payment System in Ghana has recorded two developments. The Bank of Ghana's Real Time Gross Settlement (RTGS) also known as the Ghana Inter-bank Settlement (GIS) system was launched in 2002. It links participating banks by electronic means to the Bank of Ghana to ensure computerised processing and settlement of inter-bank transactions on gross basis in real time.

Another development in the Ghanaian payment system was the introduction of an online Debit Card, E-Card by three banks in collaboration with a network provider within the Accra-Tema metropolitan area.

3.6.1 Concentration

The market concentration shows how competitive an industry is. If a market is very competitive we expect the concentration ratio to be low as participants strive to acquire a sizeable share of the market thus leading to efficiency. Tables 4.8a and 4.8b show the market concentration of deposits and assets for the six major banks from 1998 to 2005.

In terms of deposits, the share of the six major banks fell slightly from 86% in 1998 to 71 % in 2005. The six banks have held about 80% (on average) of total deposits in the industry between 1998 and 2005. The picture is not different for that of assets, where the share of the six banks decreased marginally from 85% in 1998 to 70% (also 80% on average within the same period). The market concentration of the six major banks points to oligopolistic competition and indicates that the reforms have not generated enough competition in the banking industry as the market is still dominated by the six banks. The banking industry therefore has enough opportunities for growth and expansion.

Table 3.13a : Market Concentration - Deposit (1998-2005) %

Bank	1998	1999	2000	2001	2002	2003	2004	2005
GCB	21	18	22	20	20	19	21	19
SCB	23	23	20	19	18	17	16	13
BBG	15	17	18	20	16	17	15	14
SG-SSB	13	11	9	9	8	8	8	7
EBG	9	11	9	9	9	8	7	10
ADB	5	5	7	7	8	9	8	7
TOTAL	86	85	85	83	79	78	75	71

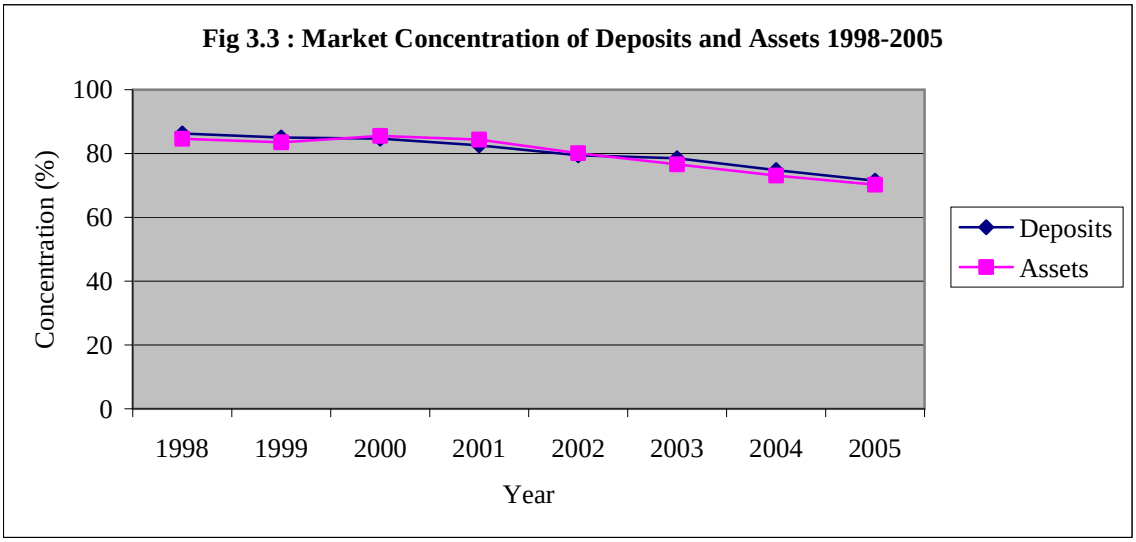
Source : Calculated from Audited Accounts of Banks

Table 3.13b : Market Concentration - Assets (1998-2005) %

Bank	1998	1999	2000	2001	2002	2003	2004	2005
GCB	21	18	18	26	24	20	18	16
SCB	19	23	25	16	16	15	14	14
BBG	14	14	14	16	14	15	15	14
SG-SSB	13	11	10	9	9	8	8	8
EBG	8	9	8	7	7	7	8	9
ADB	10	10	10	10	10	12	10	9
TOTAL	85	84	86	84	80	77	73	70

Source : Calculated from Audited Accounts of Banks'

Fig 3.3 : Market Concentration of Deposits and Assets 1998-2005



In the area of asset pricing, a survey by Bank of Ghana revealed that only a few leading (two out of the top 5) banks have been practicing detailed activity-based costing to come out with prices of their products. The remaining three top banks were found out to accept and apply the rates computed by their competitors or changed them marginally for a section of their clients. There is some anecdotal evidence of leadership-followership tendencies among the banks in the area of product delivery. Hence, there is no significant evidence of price wars among banks in Ghana. It can be concluded that the kind of competition among banks in Ghana is an impediment to the efficient operations of banks.

3.13c: Share of the Top 5 Banks in Total Industry Position (%)

Year	Cash & Short-Term Fund	Investments	Loans & Ods (Net)	Total Assets	Deposits	Shareholders' Funds
1988	84.82	87.28	67.44	80.84	83.95	(21.48)
1989	89.72	84.86	76.54	83.05	84.95	4.57
1990	88.07	77.55	69.26	81.53	82.15	89.12
1991	84.39	83.38	64.49	80.90	81.42	91.68
1992	77.50	77.70	63.71	75.88	80.90	89.17
1993	81.54	80.00	68.74	78.49	76.37	77.79
1994	80.50	77.55	66.66	78.32	80.33	80.68
1995	71.60	78.76	66.51	74.43	74.12	74.67
1996	76.83	71.77	67.71	74.33	76.67	72.68
1997	71.00	77.15	77.29	76.75	78.96	78.40
1998	75.16	75.20	79.39	76.65	77.59	78.39
1999	62.75	78.52	81.56	76.61	76.39	75.75
2000	61.75	81.29	81.90	78.44	75.92	73.66
2001	68.87	76.55	81.46	77.57	73.71	75.39
2002	64.50	84.53	72.78	74.49	73.79	77.36

Source: Banks' Audited Accounts

3.6.2 The Retail Market

A review of the retail market segment indicates deposits from individuals constitute about 55% of retail market deposits as shown below. Of this, over 50% is concentrated in the hands of only four banks. Barclays, Ghana Commercial Bank, Standard Chartered, and SG-SSB Bank together hold over half of the industry's retail deposits.

Table 3.14: Structure of Retail Deposits in the Banking Industry (2000–Feb 2005)

	Dec-00		Dec-01		Dec-02		Dec-03		Dec-04		Feb-05		Average	
	Amt	Share	Amt	Share	Amt	Share	Amt	Share	Amt	Share	Amt	Share	Amt	Share
	(¢'Billion)													
i. Individuals	1,727.2	61.3%	2,653.5	54.2%	4,345.3	58.0%	5,677.3	53.5%	7,182.0	52.0%	7,384.5	53.8%	4,828.3	55.5%
ii. Other private Ent.	708.6	25.1%	1,465.2	29.9%	1,871.5	25.0%	2,635.3	24.8%	3,734.8	27.0%	3,546.2	25.8%	2,326.9	26.3%
iii. Gov't dept. & agencies	166.2	5.9%	248.3	5.1%	440.0	5.9%	1,450.0	13.7%	1,430.5	10.4%	1,248.4	9.1%	830.6	8.3%
iv. Public Ent. /other	215.8	7.7%	532.0	10.9%	831.1	11.1%	844.5	8.0%	1,468.0	10.6%	1,549.3	11.3%	906.8	9.9%
Total Cedi Deposits	2,817.9	100.0%	4,898.9	100.0%	7,487.9	100.0%	10,607	100.0%	13,815.2	100.0%	13,728.3	100.0%	8,892.6	100.0%

Source: Research Dept. Bank of Ghana

The retail market is the main source of deposits for these banks accounting for 84%, 81% and 74% of deposits for BBG, SCB and GCB respectively. SG-SSB's retail banking contributes about 40% to deposits. Advantages of sourcing funds from this segment include lower interest costs and flexibility in fund allocation. It is therefore attractive for growth proposals to target this market.

3.6.3 Banking Services Delivery and Products

Competition is vital for both growth and development of the financial sector, and the economy in general. A major improvement in the banking service delivery, which has injected competition and efficiency in the banking sector, has been the introduction of innovative products, as well as improvements in technology. Examples include the introduction of the SSB Sika Card, Standard Chartered Bank and Barclays ATMs and networking which facilitates banking transactions and reduced transaction costs to the public.

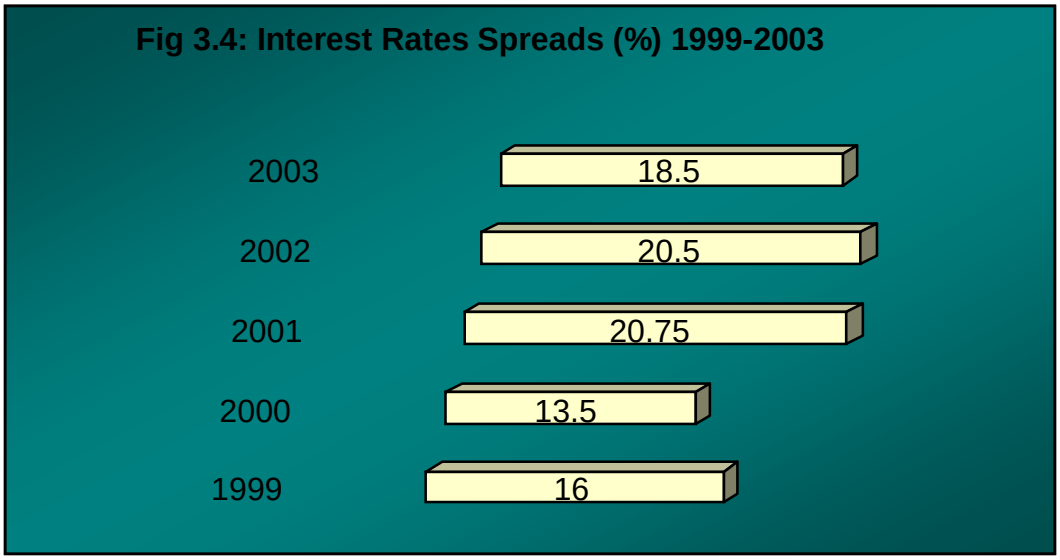
3.6.4 Performance of the Banking Sector

Evidence from key financial performance indicators shows a mixed result. The capital adequacy ratio (CAR) was about 12.5% as at the end of December 2005, well above statutory requirement of 10%, with a wide dispersion among banks.

However, the adverse macroeconomic developments in 1999 and 2000 have impacted negatively on the asset quality of the bank's loan portfolio (Buchs and Mathisen 2003). The nonperforming loans as a share of total loans increased from 16.2% in 2000 to as high as 28.6% in 2002.

The banking sector is also characterised by high overhead costs. The five largest banks incur on average overhead cost of 7% of total asset, which is similar to the sector as a whole but higher than Sub-Saharan African average of 5.7%. The high cost could be partly explained by recent high investments in banking infrastructure, especially in the telecommunication, which still suffers from interconnectivity problems. The trend also, to an extent, reflects the marketing practices in the sector in terms of cost sharing. For instance the refusal to network the automated teller machines might have led to huge private investments in telecommunication.

Profitability indicators, on the other hand, show that high overhead costs and sizable provisioning notwithstanding, Ghana's return on assets (ROA) and equity (ROE) are among the highest in Sub-Saharan Africa. This is reflected in the wide interest margins that prevail in the financial system. For example, in 2003 ROA averaged 6.40% whilst ROE stood at 35.56%, which are remarkable. Similarly, both net interest revenue and non-interest revenue were high. Net interest revenue and non-interest revenue were 63.18% and 36.83% respectively.



The stability enjoyed by the sector suffered a set back in December 2000 when there was a rush on the banks. This led to the inability of some banks to satisfy depositor's withdrawals and depositors were asked to come back in later days for their money (a semblance of the 2002 Argentina experience). The December 2000 bank panic was attributed to two main factors.

i. The increased withdrawal of money from the banking system by political parties for political activities
ii. Increasing political risk and the fast depreciation of the cedi. As a result of the depreciating cedi, people withdrew their monies from the banking system and converted them into foreign currencies.

The wide spread margins, large overhead costs and sizeable supply of relatively high-return government papers that characterized the financial system underlie the high cost of intermediation. Also, the deterioration in the quality of bank's loan portfolio has negative implications for the stability of the financial system, since wide interest margins also reflects the non-performing loan problem.

The table below provides a summary of financial soundness for the banking sector between 1997 to 2003 using CAMEL framework.

Table 3.15A: Financial Soundness Indicators (CAMEL) for Banking sector 1997-2003 (in % at year's end, unless otherwise indicated)

	1997	1998	1999	2000	2001	2002	2003
Capital Adequacy							
Regulatory Capital to risk-weighted assets	15.2	11.1	11.5	11.6	14.7	13.4	9.3
Percentage of Banks greater or equal to 10%	87.5	75.0	60.0	62.5	64.7	52.9	66.7
Percentage of Banks below 10% and above6% minimum	6.3	12.5	40.0	37.5	35.3	35.3	27.8
Percentage of Banks below 6% minimum	6.3	12.5	0.0	0.0	0.0	11.8	5.6
Capital (Net worth) to Asset	13.4	12.2	12.2	11.9	13.1	12.6	12.5
Asset Quality							
Foreign Exchange loans to total loans	25.6	28.5	33.4	35.3	34.1	33.8	0
Past due loans to gross loans	24.6	18.9	21.1	16.2	28.0	28.6	24.4
Non performing loans	21.6	17.2	12.8	11.9	19.6	22.7	18.3
Watch-listed loans	3.0	1.7	7.3	4.3	8.4	5.9	6.0
Provisions as % of past due loans	78.0	89.4	67.2	58.6	46.4	63.6	64.4
Earnings and Profitability							
Net profit (before tax)/net income	51.5	39.2	61.2	52.4	45.9	43.4	39.2
Return on Asset	8.0	8.6	8.5	9.7	8.7	6.8	6.4
Return on Equity	39.9	48.9	48.8	65.7	49.7	36.9	54.0
Expense/income	44.0	42.2	44.3	38.2	40.2	47.3	36.0
Interest rate spread (deposit money banks)							
Lending rates minus demand deposit rates	37.0	33.8	32.5	30.5	30.5	30.5	23.3
Lending rates minus savings deposit rates	16.3	22	23.5	29.3	29.5	25.5	23.0
Liquidity	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
Actual reserve ratio (as a % of total deposits)	60.1	64.8	61.8	49.9	62.4	66.0	66.1
Excess reserve ratio	17.1	21.8	18.8	5.9	18.4	22.0	22.1
Loan/deposit	42.2	48.7	59.0	64.0	63.9	50.1	56.1
Foreign Exchange liabilities/total liabilities	24.9	21.1	29.7	36.2	27.0	27.4	0.0
Sensitivity to market risk							
Net foreign exchange assets (liabilities) to shareholders fund	62.9	48.1	-7.6	-9.4	22.9	24.3	0.0

Source: IMF staff country report No. 396/03 and Bank of Ghana.

Table 3.15B : Growth in Key Banking Industry Indicators

	1990	1998	1999	2000	2001	2002	2003	2004	2005
Growth in Assets	52.1	32.0	47.8	77.6	15.2	31.8	33.4	22.1	17.1
Growth in Net Advances	4.7	19.7	64.0	84.0	14.8	10.0	51.2	26.0	41.9
Growth in Deposits	31.6	30.9	41.9	69.3	15.7	36.7	35.8	26.2	19.4
Growth in Profit after Tax	(335.8)	28.3	41.4	111.0	8.1	(4.0)	17.7	39.4	(2.8)
Growth in Equity	(459.1)	37.4	29.0	66.5	29.6	22.8	26.8	31.6	39.4

Source : Computed from Audited Accounts of Banks'

3.6.5 Possible Factors Explaining Bank Profitability and efficiency of Intermediation

At least three factors may have prevented further financial deepening in Ghana so far, and which may be relevant for the interpretation of both profitability and efficiency indicators of the banking system. The first factor is macroeconomic policies, as macroeconomic stability is essential to the development of the financial sector. This is relevant because Ghana's macroeconomic policies over the last decade until the current administration (from 2001) has been characterized by periodic slippages in financial discipline, leading to volatile and general high inflation, large exchange rate swings, and negative real interest rates for extended periods. The most recent example of macroeconomic imbalances includes the severe terms of trade shock of 1999-2000, which combined with fiscal slippages, resulted in inflationary pressures, 15% exchange rate depreciation, and a buildup of a sizeable domestic government debt. This high degree of uncertainty associated with Ghana's macroeconomic environment has negatively affected both the size and the quality of financial intermediation. This development is supported by the low level of overall savings and investment. Another piece of evidence is the short

time horizon in the overall financial sector. Long-term savings is yet to be implemented.

Ghana's savings and investment rates remain very low even by Sub-Saharan African standards. This has contributed to the low growth rates which average 4.3% in the 1990s. The low domestic savings and investment rate is due to high inflation, huge budgetary deficits, insignificant private sector (Gyimah-Larbi, 1999). What was experienced in the 1990s was that the individual households continued to hold substantial proportion of savings averaging 75% as shown below in Table 3.3a. Table 3.3b on the other hand shows that there was an increasing propensity to hold money market instruments as well as savings deposits as opposed to time deposits. This was a reflection of the economic situation in Ghana. As inflation got out of hand, more of the excess balances were held in money market instruments with some of the highest interest rates to hedge against inflation. Money market instruments dominated with 61.2% in 2000 of the total private savings. Savings deposits were just 23.8% and time deposits, 14.9%. This is an indication of an increase in domestic borrowing by the government. It may be noted that money market instruments have become a much bigger share of the financial assets of Ghanaian households in recent times than they ever were (ISSER, 2000). In a way, while it reflects the growing diversification of the financial market, it also highlights the considerable distortions in the market.

What was more significant is that deposits in foreign currencies grew much faster than any of the domestic instruments. In other words, more and more Ghanaians switched from the Cedi-based instruments to foreign currency denominated ones, a

trend that had significant implications for the monetary position with the growing demand for foreign exchange.

Table 3.16a: Distribution of Private Financial Savings by Type of Holder (1994-2001) (%)

Year	Household (Individuals)	Private Enterprise	Public Sector	Total
1994	76.3	7.1	16.6	100
1995	77.7	6.9	15.4	100
1996	75.0	7.0	18.0	100
1997	72.4	18.4	9.2	100
1998	76.1	19.2	4.7	100
1999	75.1	20.7	4.2	100
2000	71.0	20.5	8.5	100
2001	73.6	21.6	4.8	100

Source: Bank of Ghana

Table 3.16b - Total Private Savings with Formal Financial Institutions, 1990-2001 (%)

Year	Money Market Instruments	Savings Deposits	Time Deposits	Total
1990	44.3	46.7	9.0	100
1991	33.1	55.6	11.3	100
1992	35.8	48.5	15.7	100
1993	53.2	39.8	7.0	100
1994	48.2	44.2	7.6	100
1995	48.9	40.2	10.9	100
1996	51.0	39.8	9.2	100
1997	52.0	30.7	17.3	100
1998	55.6	25.3	19.1	100
1999	51.5	19.9	28.6	100
2000	61.2	23.8	15.0	100
2001	59.5	25.3	15.2	100

Source: Bank of Ghana

Table 3.16b appears to depict an interesting feature: while savings deposits and time deposits are going down, money market instruments (treasury bills in this case) appear to be increasing. Together with the high returns offered, this situation has exacerbated the crowding-out effect on private sector lending.

A second possible factor is the risky lending environment prevailing in Ghana, as reflected in the high level of past-due nonperforming loans. This is largely due to the significant losses of some state-owned companies, but also reflects the lack of any central credit information system and the lack of cooperation among banks sharing customer information. Although nonperforming loans have some substantial provisioning implications, provisioning standards are lower in Ghana than in most African countries. Depending on loan classification practices, this may suggest that the asset quality of banks' loan portfolio is somewhat overestimated, which may act as a further disincentive to engage in financial intermediation.

A third factor that may account for low and inefficient financial intermediation in Ghana is the presence of uncompetitive market structure.

6.6 Key Performance Indicators

The key performance indicators of banks in Ghana for the year ended December 2004 was mixed. Whilst the Capital Adequacy Ratio and Loan Loss Provision to Total Credit improved to 27.7% and 10.9% respectively, Interest Margin and Return on Equity worsened to 9.5% and 24.1% respectively. Below are key performance indicators of the Banking Industry from 2001 to 2004.

Table 3.17: Key Performance Indicators 2001-2004

Indicator	2001 %	2002 %	2003 %	2004 %	2005 %
Return on Assets	8.7	7.3	6.3	4.6	4.9
Return on Earning Assets	9.4	9.3	8.0	5.9	6.3
Return on Equity	49.7	37.6	33.4	22.9	24.1
Net Interest Spread	12.4	11.9	12.3	8.9	10.8
Expense to Income	40.2	59.0	63.9	63.5	68.7
Loan Loss Provision to Total Credit	15.0	18.2	15.4	14.6	10.9
Interest Margin	14.4	10.1	10.6	7.1	9.5
Capital Adequacy	14.7	13.4	9.3	13.7	27.7

Source: Bank of Ghana Annual Report 2004, Calculated from 2005 published Accounts of Banks.

Table 3.18: Comparative Performance of Banks in 2004

Name of Bank	GCB	SCB	BBG	SG-SSB	ADB	NIB	EBG	*MBG*	CAL	FAMBL	TTB	PBL	ICB	ARB	MAB	SBL	ABL	HFC	Average
Productivity Ratios																			
Return on Assets (ROA)	2.94%	4.38%	**5.53%**	4.35%	3.57%	3.49%	3.64%	***4.24%***	4.22%	1.02%	4.14%	2.07%	2.28%	5.14%	0.89%	2.05%	1.71%	3.01%	3.26%
Return on Equity (ROE)	27.40%	43.49%	**51.75%**	32.52%	19.75%	30.30%	36.70%	***32.04%***	20.98%	15.48%	51.96%	37.60%	11.72%	24.99%	13.85%	15.65%	21.54%	17.60%	28.07%
Return on Earning Assets (ROEA)	4.06%	8.78%	**8.24%**	6.54%	6.46%	5.14%	6.76%	***7.49%***	6.35%	1.56%	6.29%	3.17%	3.08%	9.46%	1.60%	3.91%	2.50%	4.22%	5.31%
Int Expense/ Int Income	22.03%	26.49%	**14.07%**	22.52%	33.21%	30.50%	29.06%	***34.10%***	48.55%	51.16%	34.22%	48.80%	49.07%	19.60%	45.34%	30.88%	70.17%	48.90%	36.59%
Net Int Income / Total Income	75.39%	58.56%	**66.20%**	63.74%	47.85%	61.84%	60.17%	***44.05%***	48.40%	53.85%	66.00%	62.58%	57.89%	72.40%	39.90%	52.90%	48.63%	82.40%	59.04%
Comm & Fess / Total Income	22.62%	30.68%	**32.41%**	32.96%	29.60%	15.89%	39.27%	***30.63%***	28.44%	21.52%	24.91%	31.40%	17.27%	6.95%	27.26%	29.24%	42.91%	11.13%	26.39%
Op. Expense / Total Income	63.80%	48.31%	**37.91%**	56.50%	47.82%	50.29%	46.40%	***37.24%***	48.09%	58.10%	46.43%	65.70%	58.97%	65.07%	70.61%	61.77%	64.64%	58.86%	54.81%
Equity / Total Assets	10.74%	10.07%	**10.68%**	13.38%	18.09%	11.53%	9.93%	***13.22%***	20.11%	6.61%	7.96%	5.50%	19.48%	20.56%	6.44%	13.12%	7.95%	17.08%	12.36%
Activity Ratio																			
Market Share of Deposits	20.58%	15.95%	**15.26%**	7.62%	7.74%	2.15%	9.35%	***5.17%***	2.32%	1.23%	2.46%	2.43%	1.24%	0.90%	0.63%	2.59%	1.54%	0.83%	
Advances/Deposits	49.11%	49.50%	**65.27%**	47.13%	52.71%	174.46%	36.18%	***60.27%***	62.73%	84.94%	43.75%	58.46%	25.63%	4.43%	33.38%	37.21%	25.40%	133.34%	57.99%
Advances/Total Assets	37.36%	37.22%	**43.12%**	30.53%	27.32%	52.90%	29.13%	***45.31%***	36.50%	44.14%	24.80%	33.77%	19.71%	3.28%	27.10%	26.86%	22.20%	38.47%	32.21%
Total Deposits/Total Assets	76.08%	75.19%	**66.07%**	64.77%	51.82%	30.32%	80.53%	***75.17%***	58.19%	51.96%	56.68%	57.76%	76.89%	74.11%	81.20%	72.20%	87.38%	28.85%	64.73%
Leverage Ratio																			
Bad Debt / Total Income	12.41%	1.01%	**6.03%**	5.71%	23.85%	16.88%	2.45%	***16.88%***	7.77%	26.51%	8.25%	6.40%	6.64%	0.41%	20.76%	13.64%	6.94%	3.73%	10.35%
CAPITAL ADEQUACY	10.74%	10.07%	**10.68%**	13.38%	18.09%	11.53%	9.93%	***13.22%***	20.11%	6.61%	7.96%	5.50%	19.48%	20.56%	6.44%	13.12%	7.95%	17.08%	12.36%
Prov./Total Loans	4.70%	0.37%	**2.17%**	2.96%	12.20%	4.62%	1.03%	***5.72%***	2.62%	8.85%	4.86%	1.95%	3.32%	1.85%	12.02%	5.57%	3.01%	0.99%	4.38%
Bad Debt / Total Loans	4.70%	0.37%	**2.17%**	2.96%	12.20%	4.62%	1.03%	***5.72%***	2.62%	8.85%	4.86%	1.95%	3.32%	1.85%	12.02%	5.57%	3.01%	0.99%	4.38%

3.7 Competition (Competitive Strength of Banks)

The Banking scene in Ghana is being dominated by the "big 8" namely GCB, BBG, SCB, ECO, ADB, SG-SSB MBG and NIB, who together control about 85% of industry deposits and assets. The market share of the top 8 banks was 92% as at 2000 and this has dropped to 85% as at 2004. This is due to the competition from the existing and new entrants. This means that the market is still controlled by the top 8 Banks indicating weak competition.

3.7.1 Market Share of Deposits

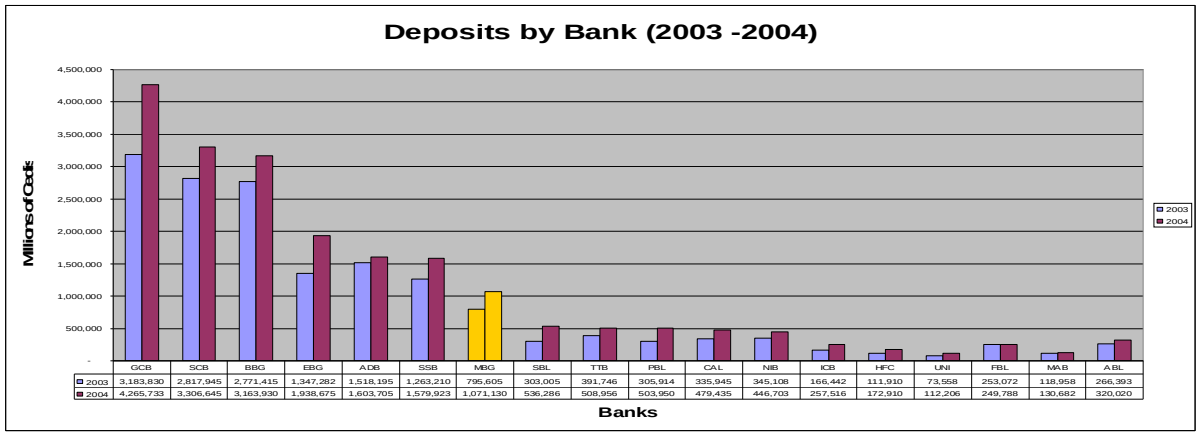
Most banks have generally registered growth in deposits during 2004 as shown below:

Table 3.19: Growth in Market Share 2004

Bank	Deposits (¢ Millions)	Percentage Share	Deposits(¢ Millions)	Percentage Share	Increase
	2004		2003		
Ghana Commercial Bank Limited (GCB)	4,265,733	21%	3,183,830	19.45%	33.98%
Standard Chartered Bank Limited(SCB)	3,306,645	16%	2,817,945	17.21%	17.34%
Barclays Bank (Ghana) Limited (BBG)	3,163,930	15%	2,771,415	16.93%	14.16%
Ecobank Ghana Limited (EBG)	1,938,675	9%	1,347,282	8.23%	43.90%
Agricultural Development Bank (ADB)	1,603,705	7.77%	1,518,195	9.27%	5.63%
SG SSB Bank Limited (SG SSB)	1,579,923	7.65%	1,263,210	7.72%	25.07%
Merchant Bank Ghana Limited (MBG)	1,071,130	5.19%	795,605	4.86%	34.63%
Stanbic Bank Limited (SBL)	536,286	2.60%	303,005	1.85%	76.99%
The Trust Bank (TTB)	508,956	2.46%	391,746	2.39%	29.92%
Prudential Bank Limited (PBL)	503,950	2.44%	305,914	1.87%	64.74%
CAL Bank Limited(CAL)	479,435	2.32%	335,945	2.05%	42.71%
National Investment Bank (NIB)	446,703	2.16%	345,108	2.11%	29.44%

Bank	Deposits (¢ Millions)	Percentage Share	Deposits(¢ Millions)	Percentage Share	Increase
	2004		**2003**		
International Commercial Bank Ltd. (ICB)	257,516	1.25%	166,442	1.02%	54.72%
HFC Bank Limited (HFC)	172,910	0.84%	111,910	0.68%	54.51%
Unibank Ghana Limited (UBL)	112,206	0.54%	73,558	0.45%	52.54%
First Atlantic Merchant Bank Ltd. (FAMBL)	249,788	1.21%	253,072	1.55%	-1.30%
Metropolitan & Allied Bank Limited (MABL)	130,682	0.63%	118,958	0.73%	9.86%
Amalgamated Bank Limited (ABL)	320,020	1.55%	266,393	1.63%	20.13%
TOTAL	**20,648,193**	**100%**	**16,369,534**	**100.00%**	

Fig 3.5: Deposits by Banks (2003-2004)



3.7.2 Comparative Trend Analysis of Market Share of Deposits (2000-2004)

Comparative trend analysis of industry deposits from 2000 – 2004 as shown in the table below indicates that Ghana Commercial Bank is the largest bank with average market share of 20%, followed by Standard Chartered Bank, Barclays and Ecobank in that order. The trend indicates that there is no much competition among the top banks. The Banks' market share has been stable over the period with little or no competition at the top 8 banks (4 foreign owned

and 4 locally owned banks). Merchant Bank captures 5% market share of deposits ranking 7th while National Investment Bank ranked 8th with a market share of 2%.

Table 3.20: Market Share of Deposits

	2000	2001	2002	2003	2004
GCB	22%	19%	20%	20%	21%
SCB	19%	18%	18%	17%	17%
BBG	17%	20%	17%	17%	15%
ECOBANK	11%	12%	9%	8%	9%
SG-SSB	9%	8%	9%	8%	8%
ADB	7%	7%	8%	9%	8%
MBG	5%	5%	5%	5%	5%
NIB	2%	2%	2%	2%	2%
TOTAL	92%	91%	88%	86%	85%

3.7.3 Cost of Funds

The banks' cost of borrowing, as measured by i*nterest expense to interest income* ratio have been on the decline from average of 42% in 2000 to 25% by 2004. This shows an improvement in the cost of mobilisation of deposits as all the banks have witnessed a drop in interest expense/interest income ratio. Barclays seems to be having the lowest cost of funds and this largely explains why Barclays is the best profitable bank in Ghana. Barclay's strength lies on the sourcing of deposits. This is due primarily to cheap deposits sources such as retail/mass market, domineering in the corporate market/customers; NGOs and Embassies accounts and the bank's branches are strategically located.

Merchant Bank and Ecobank did not initially do well in cost of funds simple because they were merchant banks and were dealing with corporates and their license did not allow them to do retail banking business. They were sourcing expensive deposits from corporates in the form of fixed deposits. But since the universal banking license in 2002, there has been an improvement and this is likely to change in the future.

Table 3.21 : Comparative Trend Analysis of Interest Expense/Interest Income (2000-2004)

	2000	2001	2002	2003	2004
GCB	58%	20%	19%	24%	22%
SCB	49%	40%	25%	29%	27%
BBG	29%	27%	21%	15%	14%
SG-SSB	30%	29%	26%	27%	23%
ADB	36%	31%	31%	32%	33%
NIB	28%	13%	15%	24%	17%
ECOBANK	42%	37%	39%	32%	29%
MBG	65%	60%	45%	54%	34%
INDUSTRY	**40%**	**33%**	**28%**	**31%**	**28%**

3.7.4 Return on Equity (ROE)

The period 2000-2004 witnessed downward trend in ROEs for most of the Banks. The drop in return on equity is partly due to the high operating cost of most banks mostly from the infrastructural cost (technology) and staff cost as well as non-performing assets. For example, Merchant Bank poor performance in 2002 was simply from the non-performing loans and therefore its ROE was a low 14% in 2002 but recovered to achieve 32% ROE in 2004. This

development on one hand illustrates the Merchant Bank's success of its restructuring plan that was initiated in 2003. Ghana Commercial Bank, the largest bank in terms of Assets appears not to be doing well because of its high operating cost as witnessing by its cost/income ratio of more than 65% largely from staff cost. Ghana Commercial Bank has 132 branches across the country but its performance is weak largely due to its huge cost of operation.

Table 3.22: Comparative Trend Analysis of Return on Equity (ROE) (2000-2004)

	2000	**2001**	**2002**	**2003**	**2004**
GCB	58%	49%	40%	19%	27%
SCB	60%	52%	47%	43%	44%
BBG	87%	82%	54%	55%	52%
SG-SSB	46%	42%	28%	27%	33%
ADB	43%	32%	17%	17%	20%
NIB	56%	16%	19%	25%	30%
ECOBANK	61%	53%	39%	38%	37%
MBG	15%	24%	14%	19%	32%
INDUSTRY	**52%**	**45%**	**48%**	**29%**	**32%**

3.7.5 Return on Assets (ROA)

Return on assets also follows the same trend as the return on equity. In all Barclays seems to be the most profitable Bank followed by Standard Chartered Bank and Ecobank in that order.

Table 3.23: Comparative Trend Analysis of ROA (2000-2004)

	2000	2001	2002	2003	2004
GCB	6%	4%	4%	2%	4%
SCB	4%	5%	4%	5%	7%
BBG	7%	7%	6%	6%	9%
SG-SSB	6%	7%	4%	4%	7%
ADB	8%	7%	4%	3%	4%
NIB	15%	5%	4%	3%	5%
ECOBANK	5%	4%	4%	4%	6%
MBG	3%	4%	2%	2%	7%
Industry	6%	5%	4%	3%	4%

3.7.6 Quality of Loan Assets

Provisions for Bad Debts/Gross Advances & Loans ratio otherwise known as the "Solvency Index", measures the "health" status of banks. A low bad debt to gross loans ratio is an indication of good asset quality, which is a mark of efficient banking. As indicated in the table below, Standard Chartered Bank (SCB), Barclays Bank Ghana (BBG), and Ecobank (ECB) are few banks in the group who have been maintaining relatively low bad debts to gross loans ratio during the period. These are all foreign-owned banks with strong credit culture. The local banks, Ghana Commercial Bank, National Investment, Agricultural Development Bank and Merchant Bank seem to have weak credit culture. Evidence seems to suggest that foreign owned banks have better credit culture than locally-owned banks in Ghana.

The increase in bad loans of most of these banks, were attributed to the prevailing adverse economic conditions (high inflation and interest rates) making it difficult for most borrowers to pay back their loans.

Table 3.24 : Comparative Trend Analysis of Bad Debt/Total Loans (2000-2004)

	2000	2001	2002	2003	2004
GCB	9.7%	9.8%	13.9%	6.4%	4.7%
SCB	7.1%	8.3%	0.5%	1.0%	0.4%
BBG	2.1%	1.3%	1.1%	3.3%	3.3%
SG-SSB	3.6%	7.4%	6.4%	7.5%	3.0%
ADB	8.2%	10.9%	13.4%	11.0%	12.2%
NIB	21.5%	5.5%	5.8%	8.9%	4.6%
ECOBANK	1.5%	1.8%	1.2%	2.1%	1.0%
MBG	11.7%	6.3%	14.1%	10.3%	5.7%
INDUSTRY	6.9%	7.3%	6.2%	5.2%	3.8%

3.7.7 Cost Efficiency

The transaction costs ratio (i.e. Total Operating Expenses expressed as a ratio of Total Operating Income) measures cost efficiency of a bank. The transaction costs ratio shows the amount of resources needed to generate a unit of revenue. Merchant Bank Ghana (MBG) topped the group as the bank with best managed operating cost (37.2%) in 2004, followed closely by Barclays Bank (BBG) (37.9%). Ghana Commercial Bank is the most inefficient bank in the group. The GCB's cost is mostly from staff cost and also due to the fact that some of its branches are just making losses. GCB needs to close some of its branches in the rural areas and concentrate on profit areas. One way to do this is to sell the

non-performing branches to the rural banks since rural banks have better expertise in the rural areas than commercial banks.

Table 3.25 Comparative Trend Analysis of Operating Expenses/Operating Income (2000-2004)

	2000	2001	2002	2003	2004
GCB	30%	31%	42%	57%	64%
SCB	39%	43%	51%	49%	48%
BBG	32%	33%	38%	39%	38%
SG-SSB	39%	34%	42%	52%	57%
ADB	38%	38%	45%	45%	48%
NIB	23%	57%	55%	47%	50%
ECOBANK	35%	41%	29%	42%	46%
MBG	**30%**	**48%**	**48%**	**45%**	**37%**
INDUSTRY	**36%**	**38%**	**44%**	**49%**	**51%**

3.7.8 Non-Interest Income

Non-Interest Income/Total Operating Income ratio is a useful indicator in determining the share of non-interest income or non-funded (i.e. commission and fees) in total earnings. Since interest income is subject to changes in market rates, it is desirable for banks to generate non-interest income of at least 10% of total income to withstand interest rate shocks. It appears Ecobank is very strong in this regard.

Table 3.26: Comparative Trend Analysis of Non-Interest Income/ Operating Income (2000-2004)

	2000	2001	2002	2003	2004
GCB	27%	12%	18%	19%	23%
SCB	19%	18%	30%	24%	31%
BBG	30%	29%	34%	32%	32%
SG-SSB	22%	22%	34%	29%	33%
ADB	39%	30%	36%	35%	30%
NIB	11%	16%	16%	16%	16%
ECOBANK	46%	37%	48%	43%	39%
MBG	22%	31%	28%	27%	31%
INDUSTRY	27%	22%	29%	27%	29%

3.8 SWOT Analysis

This section identifies the banks' present strengths, weaknesses, opportunities and threats and discusses how banks can leverage their strengths to harness the market opportunities. To succeed, a Bank must use its present strengths and opportunities to offset its present internal weaknesses and future threats. For example, if a Bank is noted as one stop bank, going forward that Bank could capitalize on its strength as a universal bank to take advantage of the opportunities of large amount of cash holdings outside the banking system through aggressive marketing. For the purposes of this analysis we have selected top 8 banks, 4 foreign-owned and 4 locally-owned banks.

From the above competitive performance analysis we derive the following SWOT analysis for the banking industry:

1. Foreign Owned Banks (Barclays, Standard Chartered, Ecobank and SG-SSB)

Strengths for Foreign Owned Banks	**Weaknesses**
❖ Strong risk management capability than locally-owned banks ❖ Leverage on international stature ❖ Relatively strong capacity to generate foreign exchange ❖ Relatively easier access to international capital market than the locally-owned banks ❖ Strong capital base than locally owned banks ❖ Trustworthy ❖ Technologically advanced ❖ Attractive and spacious banking halls ❖ Though fewer branches but with higher market share of deposits ❖ Highly efficient and profitable	❖ Smaller branch network ❖ Perception about mode of operations skewed in favour of the rich and expatriate ❖ Higher initial deposit requirement. Skewed against low income group

Opportunities	**Threats**
❖ Leverage on the word-wide class franchise ❖ Fee based corporate advisory services ❖ Trade investments opportunities- very high returns	❖ Impact of local currency depreciation on shareholder value ❖ Declining interest rates and therefore lower margins ❖ New entrants into the markets

❖ Improve Customer offering and significant scope for improving customer relationship	i.e. 4 Nigerian banks.

2. Locally-Owned Banks (Ghana Commercial, NIB, ADB and Merchant)

Strengths for Locally-Owned Banks	**Weaknesses**
❖ Wide branch network particularly Ghana Commercial Bank with 132 branches across the country. ADB has about 46 branches second to GCB ❖ Accept deposits from low income group/small deposit requirement ❖ Wider customer base ❖ Perceive as local and indigenous bank ❖ Strong in private inward remittances business	❖ Weak technologically capability ❖ Inefficient and less profitable ❖ Internationally not well recognised and tend to loose business from NGOs, Embassies and donor funds ❖ Weak risk management capability. Most of them do not have risk assessment software particularly in ALCO and credit. This explains why most local banks have huge non-performing portfolios. ❖ Deficiencies in credit management i.e. poor monitoring and evaluation and deficiencies in legal documentation ❖ Poor service delivery ❖ Unattractive branch premises
Opportunities	**Threats**
❖ Leverage on the perception of being indigenous banks.	❖ Declining interest rates and therefore lower margins

❖ Access to Government Funds for specific projects-e.g. Agricultural related project funds go to ADB and Export Development and Investment Fund (IDIF) is largely managed by NIB.	❖ New entrants into the markets i.e. 4 Nigerian banks.

3.8.1 Strategic Issues emanating from the SWOT and Environmental Analysis

Key issues arising from the environmental analysis and SWOT include the following:

⇒ High degree of industry concentration-4 banks holds 56% of industry deposits and assets as at December 2005.

⇒ Huge potential banking market, given the large un-banked informal sector and high margins-hence entry by new banks.

⇒ Increasing competition resulting from new entrants from Nigeria e.g. Standard Trust Bank, Zenith Bank, Guaranty Trust, Inter Continental Plc and potential entrants e.g. FNB of South Africa, Citibank.

⇒ Product innovation

⇒ Introduction of universal banking (which enables all banks to engage in commercial as well as merchant banking) likely to intensify competition especially for the retail sector high net worth.

⇒ Predominantly cash based payment system – very expensive.

⇒ Higher loan losses due largely to fragile economy (particularly in 1999 and 2000)

⇒ Very high reserve requirements – 9% primary and 15%, which act as implicit financial tax.

⇒ Declining interest rates and shrinking of margins, the industry would generally look to non-interest income and rigorous cost management for its profit.

⇒ High operating cost arising from staff cost and operational infrastructure (technology).

⇒ SWOT Analysis seems to suggest that foreign-owned banks tend to be technologically advanced, efficient and more profitable than locally owned banks

3.9 Summary

Ghana has implemented a financial sector reform programme since 1988. The banking system had suffered severe shallowing together with wide spread bank distress as a consequence of the pre-reform policies of financial repression, government control of banks and prolonged economic crisis. The financial sector reforms included the liberalization of allocative controls on banks, restructuring of insolvent banks and reforms to prudential regulation and supervision.

The results of the reforms have been mixed. While banks are now more prudently managed and supervised, major constraints to efficient financial intermediation remain: macroeconomic instability in the 1999 and 2000 and the still very shallow nature of financial markets. The SWOT analysis seems to

indicate that foreign-owned banks are technologically advanced, more efficient and profitable than locally-owned banks.

Macroeconomic stability is essential but more important to the individual banks is the improvement in the credit risk management.

CHAPTER FOUR

MODEL SPECIFICATION, ANALYSIS AND DISCUSSIONS

4.0 Methodology

The general objective of the study is to analyse competition, growth and performance in the banking industry in Ghana. The specific objectives of the study are: to find out the level of competition in the banking industry in Ghana, to analyse how concentration in the banking industry is related to bank profitability, to analyse how bank size affects the profits of banks in Ghana.

Based on these objectives, we hypothesize as follows:

H_1: The profit growth of banks is not related to their size

H_2: The profit of banks is related to their size.

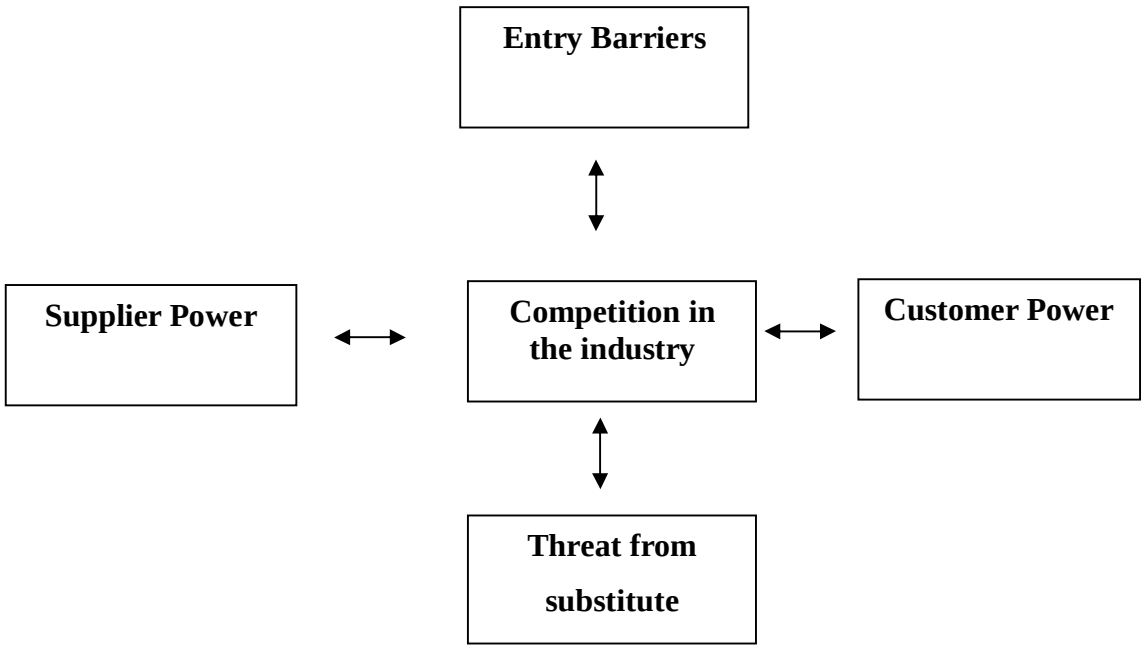
(We tested these hypothesizes at 5% level of significance).

To achieve the above objectives we made use of the following methods:

4.1 Testing Levels of Competition in the Ghanaian Banking Industry

According to Porter's 5 Forces Model, the level of competition in an industry is determined by the interaction of five main forces: existing competitive rivalry between suppliers, supplier power, customer power, entry barriers, and threat from substitute products. Porter's 5 forces framework is depicted in Fig 1 below.

Fig 4.1: Porter's 5 Forces Model



The banking industry in Ghana has undergone a lot of transformation over the past two decades due to policies implemented under the financial sector reforms. The number of banks has increased due to easy entry and exit. This has resulted in the diminishing of supplier power while customer power has increased due to increasing customer sophistication and knowledge as well as more banks available to customers to decide which bank to do business with. The industry has also witnessed increasing innovation and the threat from substitute products is eminent. Thus according to Porter's 5 forces model, one would expect competition in the industry to heighten.

4.1.1 Herfindahl- Hirschman Indexes from 1989-2005 (HHI)

Competition arises where two or more providers of services/goods offer their products, as substitutes, to buyers in the same market (Korsah et al, 2001). According to them, competition can be researched from various angles. First it is important to establish the incidence of competition i.e. is there competition in the banking industry in Ghana? A market with several suppliers makes collusion (anti-competitive behaviour) difficult to enforce (Korsah et al, 2001). To them (quoting Oster, 1995), where firms are similar in size, competition increases because none of them can dictate the market. Therefore Herfindahl-Hirschman Index (HHI) is a concentration measure that can be used as a tool for assessing the incidence of competition. The Herfindahl-Hirschman Index (HHI) is calculated as the sum of the squared market shares of all banks in the sector. That is

$$HHI = \sum_{i=1}^{k} MS_{i,}^{2}$$

Where, MS_i is the bank's market share and k represents the number of banks in the banking industry.

In the case of a monopoly, when one firm has 100 percent of the market share, the HHI will be equal to 10,000, which is the upper bound. The lower bound of zero is attained when the market is perfectly competitive. Therefore, the larger the HHI, the more concentrated the market becomes, since fewer firms control more of the market. A market with HHI in excess of 1800 is generally considered as highly concentrated and adverse effects can be presumed.

However, the relationship between concentration and market structure has been an area of considerable debate among the structuralists. The discourse is centred on two competing hypothesis: the "structure-conduct performance" (SCP) hypothesis and the "contestability" hypothesis. These details have been explained in chapter two.

Tables 4.1a and 4.1b show year on year Herfindahl indexes from 1989 to 1997 and 1998 to 2005 with average figures from 1989-1997 and 1998 to 2005. Based on the competitive model, we expected that competition in the banking industry should have increased with the implementation of financial sector adjustment programme (FINSAP) in Ghana over the period. Contrary to this competitive model expectation, after the implementation of FINSAP, the banking industry though seems to be competitive the level of competition is very weak indicating weak oligopolistic nature in the area of deposits and loans as shown in table 4.1a and 4.1b.

The tables show that the level of competition is not very intense especially in the advances market. It appears competition is becoming more intense in deposit, interest income and commission/fees markets than advances. Deposit market appears to be more competitive because the customer base at the corporate level is very small and all banks are chasing these few corporates. The low level of competition in the loan market may be due to the high risk inherent in the economy especially during the 1990s and early 2000. Banks were therefore investing most of their excess funds in treasury bills which was

virtually risk free and offered attractive return (for instance, returns on T-Bills in1999 were over 41%).

Table 4.1a Level of Competition - HHI Index 1989 - 1997

Year	Advances	Deposits	Interest Income	Commission/Fees
1989	1,694	3,207	2,348	2,784
1990	1,925	2,900	2,869	1,614
1991	1,272	3,064	2,034	1,382
1992	1,449	2,177	1,763	1,363
1993	1,326	3,142	1,534	1,343
1994	1,337	2,154	1,816	1,303
1995	1,144	1,497	1,531	1,355
1996	1,183	1,518	1,391	1,458
1997	1,265	1,489	1,334	1,625
Average 1988-1997	**1,450**	**2,592**	**1,985**	**1,592**

Table 4.1 b Level of Competition - HHI Index 1998 - 2005

Year	Advances	Deposits	Interest Income	Commission/Fees
1998	1,551	1,502	1,397	1,440
1999	1,626	1,464	1,375	1,430
2000	1,661	1,452	1,403	1,464
2001	1,829	1,365	1,518	1,317
2002	1,156	1,258	1,403	1,300
2003	1,235	1,225	1,229	1,244
2004	1,155	1,168	1,091	1,164
2005	1,042	1,051	1,000	1,191
Average 1998-2005	**1,407**	**1,311**	**1,302**	**1,319**

Fig 4.2: HHI Index for Interest Income & Commission/Fees (1989-1997)

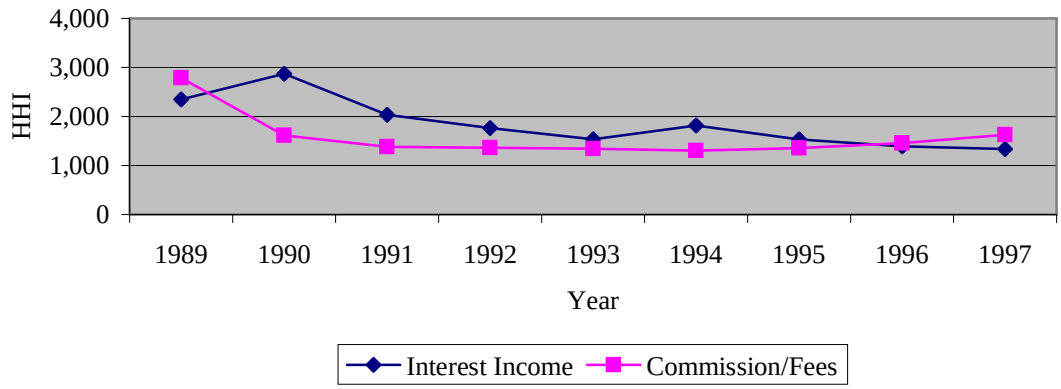


Fig 4.3: HHI Index for Advances & Deposits (1989-1997)

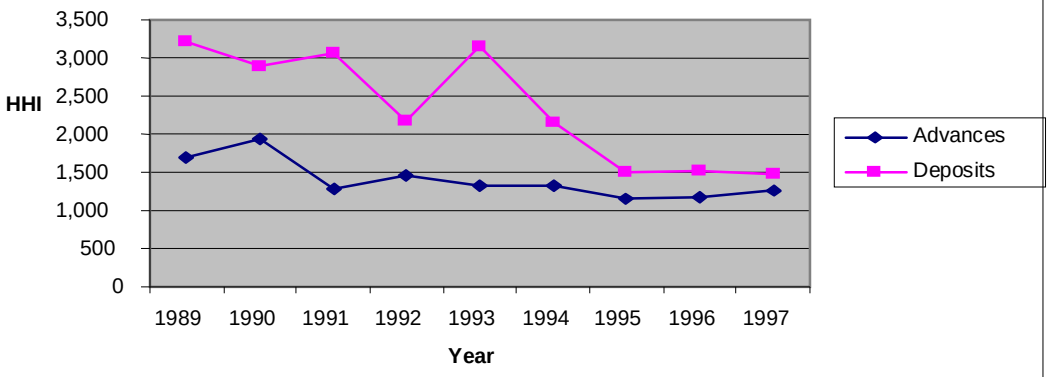
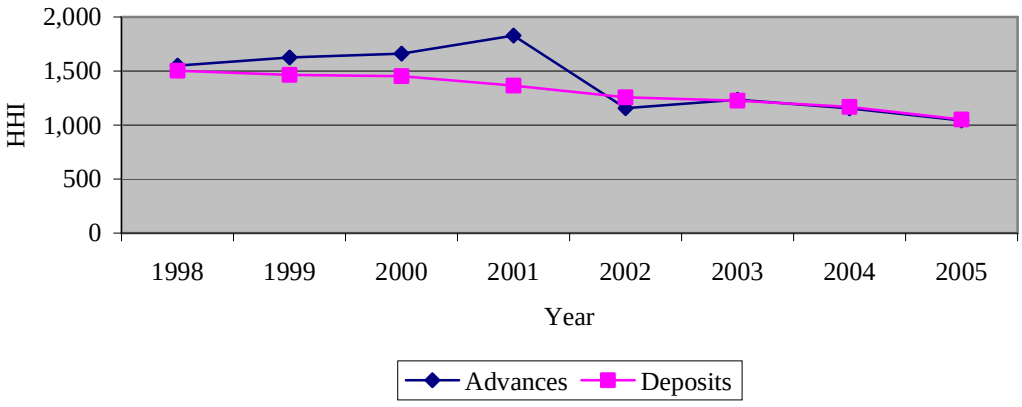
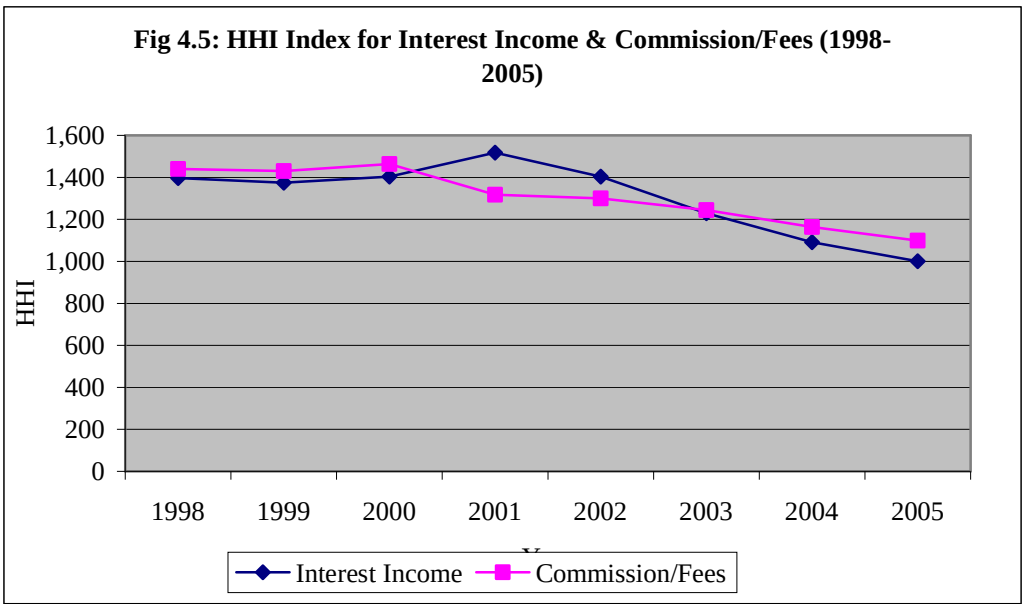


Fig 4.4: HHI Index for Deposits & Advances (1998-2005)





In terms of bank classification by size, there exists more competition among the small banks than in the big and medium banks in all the markets as shown by the HHI in tables' 4.2a-4.2c below. The low competition within the big banks is due to the inability of the medium and small banks (with the exception of Ecobank) to penetrate deeply into the market which has been dominated by the big banks over the years particularly, GCB, SCB, and BBG. The high concentration within the medium banks is due to the dominance of Ecobank in that group. Ecobank has been experiencing tremendous growth in recent times due to its ECOWAS connections, public image and superior marketing strategy. For instance as at 2005, Ecobank had 32.1%, 43.7%, 37.2%, and 49.0% market share of advances, deposits, interest income and commission/fees respectively within the medium-sized bank group. The high level of competition within the small banks' category may be partly due to the struggle for survival and the entry of new banks in the industry. Notwithstanding, CAL, PBL and SBL are relatively dominant in this group.

Table 4.2a Level of Competition - HHI Index (1998 - 2005) : Big Banks (GCB,SCB,BBG,SG-SSB and ADB)

Year	Advances	Deposits	Interest Income	Commission/Fees
1998	2,243	2,312	2,224	2,112
1999	2,326	2,350	2,230	2,140
2000	2,377	2,311	2,173	2,261
2001	2,671	2,281	2,315	2,105
2002	2,097	2,246	2,363	2,065
2003	2,196	2,221	2,248	2,121
2004	2,309	2,282	2,244	2,119
2005	2,203	2,272	2,233	2,076
Average 1998-2005	**2,303**	**2,284**	**2,254**	**2,125**

Computed by author

Table 4.2 b Competition - HHI Index (1998 - 2005) : Medium Banks (MBG,EBG,TTB and NIB)

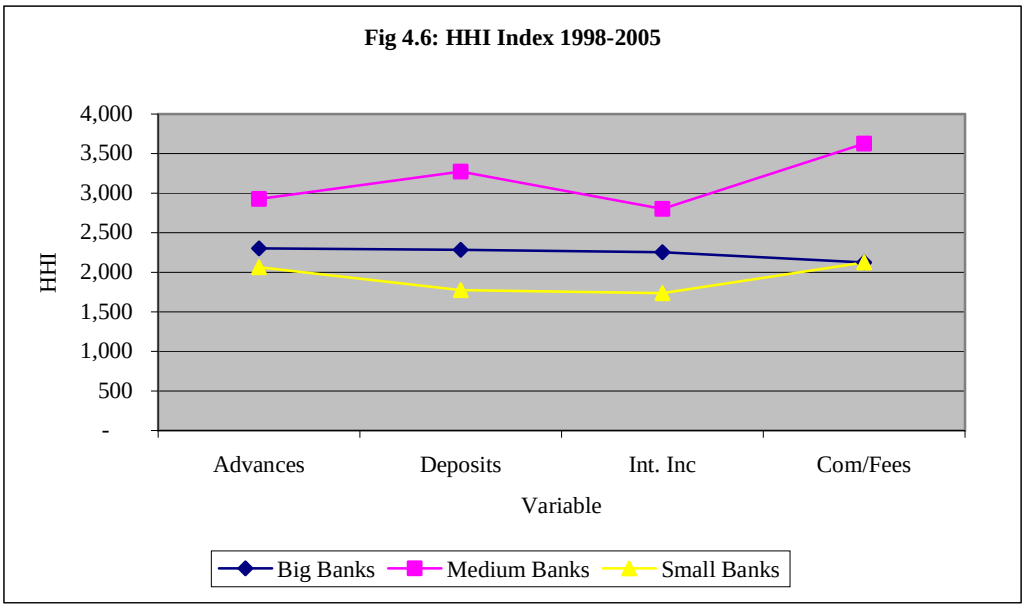
Year	Advances	Deposits	Interest Income	Commission/Fees
1998	2,989	3,372	2,810	3,197
1999	2,787	3,493	2,910	3,319
2000	3,117	3,439	2,858	4,157
2001	2,949	3,454	2,862	3,866
2002	3,062	3,333	2,905	4,070
2003	2,921	3,168	2,668	3,779
2004	2,836	2,834	2,664	3,288
2005	2,749	3,087	2,739	3,334
Average 1998-2005	**2,926**	**3,273**	**2,802**	**3,626**

Computed by Author

Table 4.2 c Competition - HHI Index (1998 - 2005) : Small Banks (SBL, ABL, UNIBANK, MAB, PBL, ICB, HFC, CAL, FAMB, STTB)

Year	Advances	Deposits	Interest Income	Commission/Fees
1998	2,350	2,377	2,175	2,730
1999	2,840	2,280	2,152	3,308
2000	2,475	2,166	2,010	2,799
2001	2,259	1,847	1,853	2,082
2002	1,999	1,533	1,552	1,687
2003	1,609	1,329	1,418	1,549
2004	1,521	1,392	1,390	1,494
2005	1,452	1,278	1,333	1,340
Average 1998-2005	**2,063**	**1,775**	**1,735**	**2,124**

Fig 4.6: HHI Index 1998-2005



Though there seem to be little competition within bank classification by size, as discussed above, there exist intense competition among interbank categories as the big banks are losing market share to the medium and small banks

particularly in key market segments such as advances, deposits and profit after tax.

In the advances market, the share of the big banks dropped by 18.4% between 1998 and 2005. With the exception of BBG that increased it market share of advances from 12.7% to 17.3% during that period, all the others banks in this category experienced decline in market share (GCB was able to maintain its market share) and this was taken by the medium and small banks with shares of 7.7% and 10.7% respectively. The data suggests that EBG (in the medium bank group) and PBL (in the small bank category) where the main gainers (see chart 4.7 and table 4.3 below).

Fig 4.7: Competition among Bank Groups - Advances Market

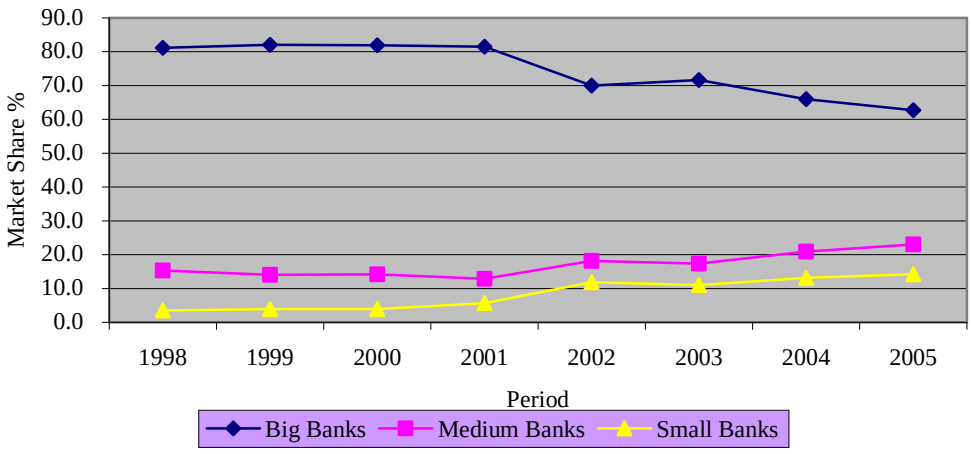


Table 4.3: Competition in the Banking Industry- Advances Market

Market Share of Advances- Big Banks								
	1998	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
GCB	16.8	17.4	21.9	34.2	16.2	19.7	18.7	16.1
SCB	26.8	28.9	27.7	16.7	15.7	15.9	14.6	13.6
BBG	12.7	11.7	10.3	12.9	17.4	17.9	18.4	17.3
SG-SSB	10.5	10.8	10.4	7.6	9.8	8.4	6.6	7.8
ADB	14.5	13.3	11.6	10.1	10.8	9.7	7.5	7.9
TOTAL	**81.1**	**82.1**	**81.9**	**81.5**	**70.0**	**71.6**	**66.0**	**62.7**
Market Share of Advances- Medium Banks								
	1998	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
TTB	1.5	1.7	1.3	1.4	2.0	2.0	2.0	2.8
MBG	6.0	5.0	4.2	3.9	4.6	4.1	5.8	7.1
EBG	3.2	3.9	6.0	5.0	7.9	7.0	6.2	7.4
NIB	4.8	3.4	2.6	2.6	3.6	4.2	7.0	5.7
TOTAL	**15.3**	**14.0**	**14.2**	**12.9**	**18.1**	**17.4**	**20.9**	**23.0**
Market Share of Advances- Small Banks								
	1998	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
SBL		0.01	0.2	0.2	0.4	1.2	1.8	1.6
ABL			0.03	0.2	0.4	0.5	0.7	0.7
UNIBANK				0.1	0.3	0.3	0.4	0.6
MAB	0.7	0.8	0.7	0.7	0.6	0.4	0.4	0.4
PBL	0.8	0.2	0.7	1.2	1.9	1.6	2.6	3.0
ICB	0.2	0.2	0.1	0.2	0.3	0.4	0.6	0.6
HFC					3.8	2.4	2.1	1.9
STAND. TRUST								0.4
CAL	1.1	1.6	1.5	2.1	2.6	2.5	2.7	2.5
FAMB	0.7	1.0	0.7	0.9	1.5	1.8	1.9	2.5
Total	**3.5**	**3.9**	**3.9**	**5.7**	**11.9**	**11.0**	**13.2**	**14.2**
NB: Shaded years means that those banks have not yet started business								
Competition among Bank Groupings- Advances Market								
	1998	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Big Banks	81.1	82.1	81.9	81.5	70.0	71.6	66.0	62.7
Medium Banks	15.3	14.0	14.2	12.9	18.1	17.4	20.9	23.0
Small Banks	3.5	3.9	3.9	5.7	11.9	11.0	13.2	14.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Calculated from Audited Accounts of Banks

In the deposit market, the situation is not different. The 5 big banks lost 16.2% of the market share of deposits during 1998-2005 with the biggest losers being SCB (9.4%), and SG-SSB (6.2%); only ADB increased its market share by

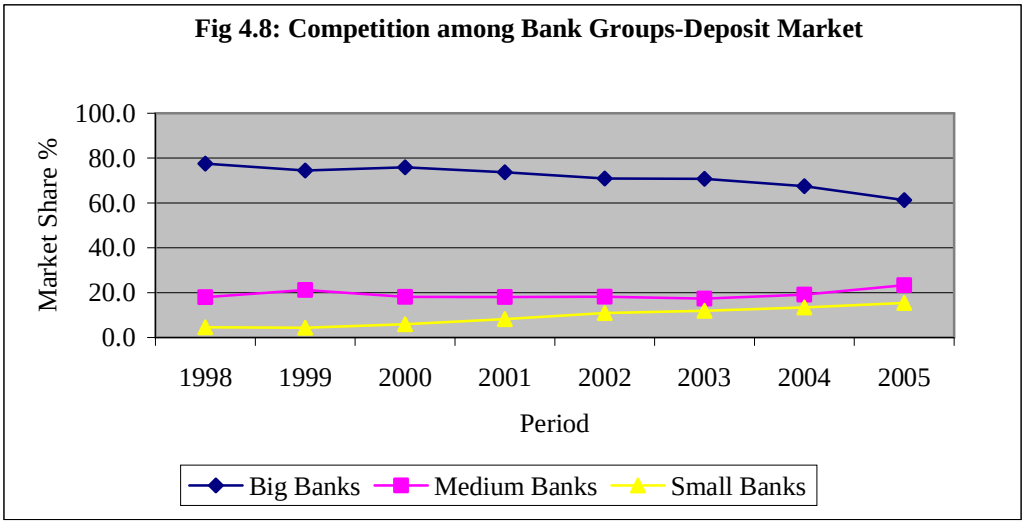
2.1% during the period. While the share of the big banks fell by 16.2%, the medium and small banks gained 5.4% and 10.8% respectively mainly on account of better performance by NIB, SBL, PBL, and EBG (see table 4.4 and Fig 4.8).

Table 4.4: Competition in the Banking Industry- Deposits Market

Market Share of Deposits- Big Banks								
	1998	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
GCB	20.9	18.3	22.3	19.6	20.0	19.5	20.7	19.2
SCB	22.6	22.9	19.7	18.6	18.1	17.2	16.0	13.2
BBG	15.3	17.3	17.7	19.6	16.3	17.0	15.3	14.2
SG-SSB	13.4	10.9	9.2	8.7	8.5	7.7	7.7	7.3
ADB	5.3	5.1	7.0	7.3	8.1	9.3	7.8	7.4
Total	**77.5**	**74.5**	**75.9**	**73.7**	**70.9**	**70.7**	**67.5**	**61.3**
Market Share of Deposits- Medium Banks								
	1998	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
TTB	1.9	2.4	2.4	2.5	2.5	2.4	2.5	2.3
MBG	4.6	5.8	5.2	5.0	5.2	4.9	5.2	5.7
EBG	8.8	10.5	8.8	8.9	8.6	7.8	7.3	10.2
NIB	2.7	2.4	1.7	1.7	1.9	2.3	4.2	5.1
Total	**18.0**	**21.2**	**18.1**	**18.1**	**18.2**	**17.3**	**19.1**	**23.3**
Market Share of Deposits- Small Banks								
	1998	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
SBL		0.02	0.4	0.7	1.6	1.9	2.6	2.6
ABL			0.1	0.3	0.7	1.6	1.6	1.4
UNIBANK				0.2	0.3	0.5	0.5	0.6
MAB	0.5	0.6	0.6	0.7	1.0	0.7	0.6	0.6
PBL	1.1	0.9	1.1	1.6	1.9	1.9	2.4	2.9
ICB	0.4	0.4	0.4	0.6	0.8	1.0	1.2	1.5
HFC					0.3	0.7	0.8	1.1
STAND. TRUST								0.7
CAL	1.4	1.4	1.7	2.4	2.5	2.2	2.3	2.5
FAMB	1.1	1.0	1.7	1.7	1.9	1.5	1.2	1.4
Total	**4.5**	**4.4**	**5.9**	**8.2**	**10.9**	**11.9**	**13.4**	**15.4**
NB: Shaded years means that those banks have not yet started business								
Competition among Bank Groupings- Deposit Market								
	1998	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Big Banks	77.5	74.5	75.9	73.7	70.9	70.7	67.5	61.3
Medium Banks	18.0	21.2	18.1	18.1	18.2	17.3	19.1	23.3
Small Banks	4.5	4.4	5.9	8.2	10.9	11.9	13.4	15.4
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Calculated from Audited Accounts of Banks

Fig 4.8: Competition among Bank Groups-Deposit Market



In the area of profit after tax, the big banks again lost market share mainly to the medium banks, particularly EBG, NIB, and TTB during the period 1998-2005. The big banks lost 8% market share in profit after tax with all banks in the group experiencing falling market shares with the exception of BBG that gained 12.1% by increasing share of profit after tax from 11.3% in 1998 to 23.4% in 2005 (see fig. 4.9 and table 4.5). While the big banks lost 8% market share of profit after tax during the period, the medium banks gained 7.1%, spearheaded mainly by EBG and NIB. The small banks were able to gain only 1% possibly due to the fact that most of the banks in this group are relatively new in the industry and are yet to recover investment costs hence lower profitability. It might partly be due to the fact the small banks are less capitalised due to their low equity base.

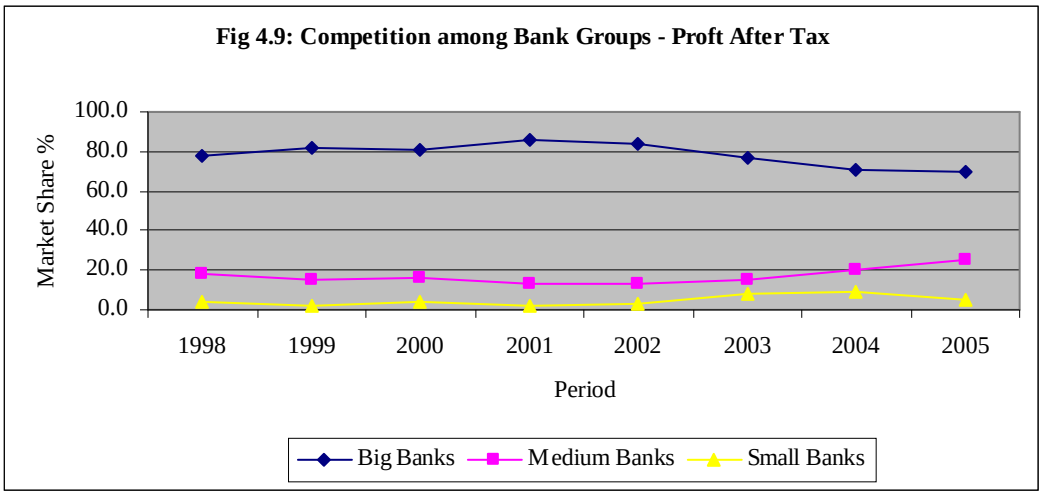


Table 4.5: Competition in the Banking Industry- Profit After Tax

Market Share of Profit After Tax- Big Banks								
	1998	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
GCB	13.9	19.0	20.0	22.4	24.2	11.0	14.0	11.2
SCB	29.1	24.2	16.6	14.4	18.1	21.1	16.3	20.2
BBG	11.3	14.9	18.4	22.5	22.7	25.2	22.4	23.4
SG-SSB	12.7	12.2	11.1	12.2	9.9	10.4	9.0	8.1
ADB	10.5	11.8	14.4	14.0	9.0	9.3	9.3	6.5
Total	**77.4**	**82.1**	**80.4**	**85.4**	**84.0**	**76.9**	**70.9**	**69.4**
Market Share of Profit After Tax- Medium Banks								
	1998	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
TTB	1.8	1.3	1.5	1.6	1.7	2.3	3.1	3.9
MBG	7.0	4.7	2.0	2.9	1.5	1.9	5.1	5.6
EBG	7.3	6.4	6.1	6.5	6.6	7.1	7.4	10.4
NIB	1.9	2.9	6.2	1.9	2.8	3.9	4.4	5.1
Total	**18.0**	**15.4**	**15.9**	**12.9**	**12.7**	**15.2**	**20.0**	**25.1**
Market Share of Profit After Tax- Small Banks								
	1998	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
SBL		-1.3	0.2	0.2	0.4	1.0	1.0	1.4
ABL			-0.2	0.1	0.2	0.2	0.5	0.4
UNIBANK				-0.6	-0.3	0.1	0.1	0.1
MAB	0.7	0.3	0.2	-0.6	-2.6	-0.2	0.1	0.1
PBL	0.5	0.4	0.4	0.6	0.9	1.4	1.5	2.0
ICB	1.0	0.5	0.3	0.4	0.4	0.5	0.6	0.8
HFC					1.2	2.1	1.5	0.7
STAND. TRUST								-3.2
CAL	1.6	2.1	2.3	1.3	2.6	2.5	2.9	2.3
FAMB	0.8	0.4	0.5	0.2	0.4	0.2	0.6	0.8
Total	**4.5**	**2.5**	**3.7**	**1.7**	**3.3**	**7.9**	**9.1**	**5.5**
NB: Shaded years means that those banks have not yet started business								
Competition among Bank Groupings- Profit After Tax								
	1998	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Big Banks	77.4	82.1	80.4	85.4	84.0	76.9	70.9	69.4
Medium Banks	18.0	15.4	15.9	12.9	12.7	15.2	20.0	25.1
Small Banks	4.5	2.5	3.7	1.7	3.3	7.9	9.1	5.5
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Calculated from Audited Accounts of Banks

4.1.2 Market Concentration

The second issue after the incidence of competition is to ascertain the intensity of competition. Competition often intensifies with the entry of new entrants or suppliers into a market that is not expanding proportionately. The market concentration shows how competitive an industry is. If a market is very competitive we expect the concentration ratio to be low as participants strive to acquire a sizeable share of the market thus leading to efficiency. Tables 4.6a and 4.6b show the market concentration of deposits and assets for the six major banks from 1998 to 2005.

In terms of deposits, the share of the six major banks fell slightly from 86% in 1998 to 71 % in 2005. The six banks have held about 80% (on average) of total deposits in the industry between 1998 and 2005. The picture is not different for that of assets, where the share of the six banks decreased marginally from 85% in 1998 to 70% (also 80% on average within the same period). The market concentration of the six major banks points to oligopolistic competition and indicates that the reforms have not generated enough competition in the banking industry as the market is still dominated by the six banks. This means that the new entrants into the banking industry have not been that competitive in deposit mobilization. The banking industry therefore has enough opportunities for growth and expansion.

Table 4.6a : Market Concentration - Deposit (1998-2005) %

Bank	1998	1999	2000	2001	2002	2003	2004	2005
GCB	21	18	22	20	20	19	21	19
SCB	23	23	20	19	18	17	16	13
BBG	15	17	18	20	16	17	15	14
SG-SSB	13	11	9	9	8	8	8	7
EBG	9	11	9	9	9	8	7	10
ADB	5	5	7	7	8	9	8	7
TOTAL	86	85	85	83	79	78	75	71

Source : Calculated from Audited Accounts of Banks-Total number of banks=21

Table 4.6b : Market Concentration - Assets (1998-2005) %

Bank	1998	1999	2000	2001	2002	2003	2004	2005
GCB	21	18	18	26	24	20	18	16
SCB	19	23	25	16	16	15	14	14
BBG	14	14	14	16	14	15	15	14
SG-SSB	13	11	10	9	9	8	8	8
EBG	8	9	8	7	7	7	8	9
ADB	10	10	10	10	10	12	10	9
TOTAL	85	84	86	84	80	77	73	70

Source : Calculated from Audited Accounts of Banks'

Fig 4.10 : Market Concentration of Deposits and Assets 1998-2005

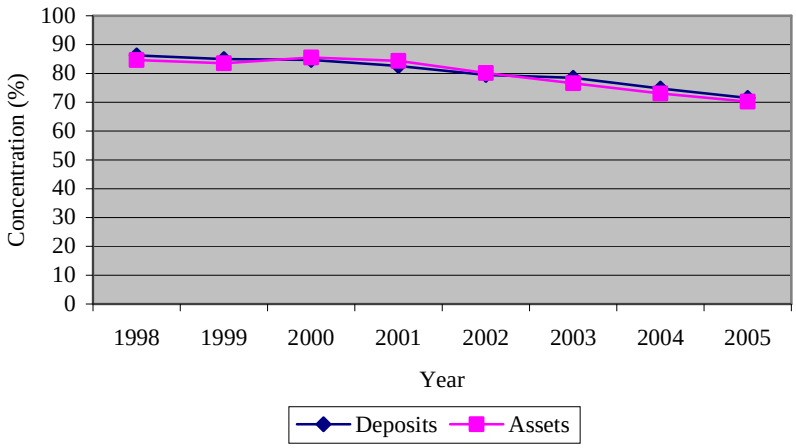


Fig 4.11 :Trend in Market share of assets of top 4 banks in Ghana (1988-1999)

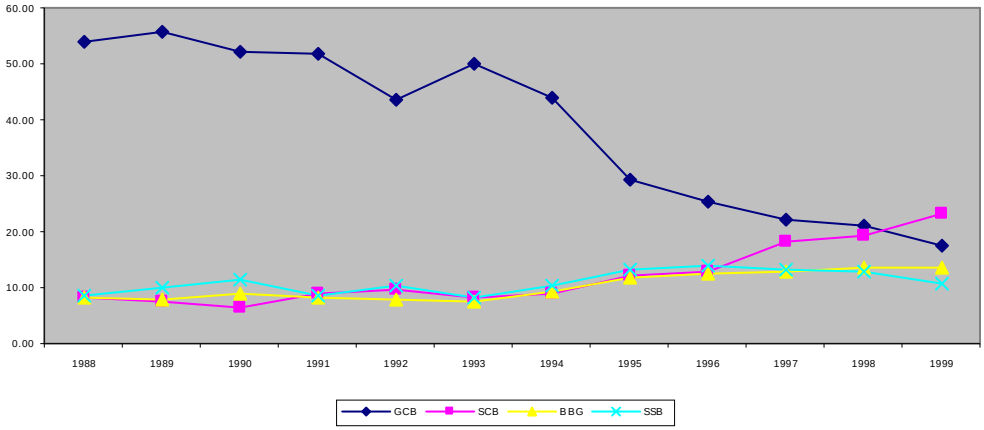
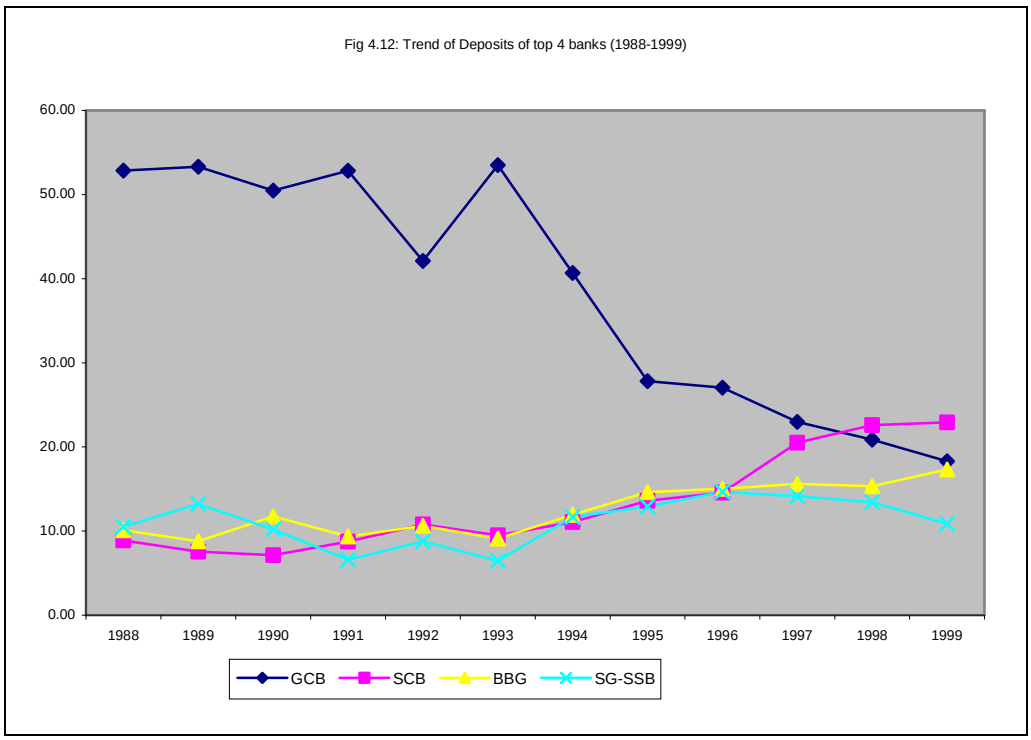


Figure 4.11 indicates zero sum game among the top four banks in the sense that what the biggest bank (Ghana Commercial Bank –GCB) had lost since 1988, the other three banks (SCB, BBG and SG-SSB) had gained. The market shares of the rest of the banks have moved within a rather narrow band implying that they have not made significant inroads by way of wrestling market share from the top four banks.



There is evidence of leader-follower tendencies among banks in the area of product pricing. There seems to be very little price competition in the banking industry in Ghana, as evidenced by the widening spread between deposits and lending rates (table 4.7a depicts). The wide spread is attributed to the high transaction cost due to the inefficiency of the banks in Ghana. Hence there is no significant evidence of price wars among the banks in Ghana and therefore the level of competition among banks is oligopolistic.

Table 4.7a : Decomposition of Interest Spread in Ghana

	Dec-04	Dec-03	Dec-02	Dec-01	Dec-00
Interest Income	**29.35**	**30.94**	**33.36**	**42.79**	**35.04**
Cost of Funds	5.17	6.34	5.89	11.32	9.84
Total Spread	**24.18**	**24.60**	**27.47**	**31.47**	**25.20**
Overhead Cost	8.93	7.86	9.95	7.26	6.05
Loan Loss Provisions	2.93	3.72	4.36	5.86	3.85
Cost of Prim Reserve Requirements	2.90	3.06	3.30	4.23	3.47
Taxation	3.29	3.49	3.45	4.94	4.14
Profit Margin	**6.13**	**6.47**	**6.41**	**9.18**	**7.69**

Source : Audited Accounts

The transaction costs ratio calculated as, **Total Operating Costs over Total Operating Income** measures cost efficiency of a bank. The transaction costs ratio shows the amount of resources spent to generate a unit of income. Table 4.7b shows that transaction cost ratio in the banking industry has been rising since 2001. The ratio has risen from 36% in 2000 to 60% mainly due to rising operating costs of banks particularly technology and staff cost. This can be interpreted to mean dwindling efficiency in the operation of banks.

Table 4.7b : Trend Analysis of Cost Efficiency

	1998	1999	2000	2001	2002	2003	2004	2005
Total Operating Costs (¢'Bn)	340	433	679	973	1,262	1,749	2,201	2,938
Total Operating Income (¢'Bn)	718	976	1,911	2,512	2,730	3,534	4,323	4,899
Tot. Op. Costs/Tot Op. Inc. (%)	47%	44%	36%	39%	46%	49%	51%	60%

Source : Calculated from Audited Accounts of Banks'

Table 4.7c: Performance of 20 Banks in Ghana as at December, 2005

	GCB	SCB	BBG	SSB	ADB	NIB	EBG	MBG
Return on Assets (ROA)	2.2%	4.7%	6.1%	3.2%	2.0%	3.1%	3.7%	3.3%
Return on Equity (ROE)	18.6%	36.5%	41.6%	20.1%	10.8%	29.8%	36.8%	25.5%
PRODUCTIVITY								
INDICATORS								
No. of Employees	2188	604	711	704	934	572	304	477
Income per employee (¢'B)	0.43	1.13	1.07	0.60	0.40	0.33	1.27	0.54
Cost per employee (¢'B)	0.33	0.54	0.45	0.41	0.28	0.29	0.64	0.26
PBT per employee (¢'B)	0.11	0.59	0.59	0.21	0.07	0.15	0.59	0.21
Int Expense/ Int Income	16.7%	24.2%	15.5%	21.7%	31.9%	33.7%	29.4%	33.6%
Net Int Income / Total Income	74.8%	64.6%	70.0%	66.9%	60.2%	76.9%	62.3%	56.5%
Comm & Fess / Total Income	25.0%	25.1%	22.8%	34.3%	34.9%	19.8%	29.2%	27.0%
Op. Expense / Total Income	77.8%	47.9%	41.5%	67.7%	69.3%	89.7%	50.1%	48.2%
Bad Debt / Total Loans	2.9%	1.4%	2.9%	0.7%	5.1%	6.9%	1.4%	3.1%
Shareholders Funds/Total Assets	11.9%	12.7%	14.7%	15.8%	18.4%	10.3%	10.2%	13.1%
Shareholders Funds/Total Loans	27.4%	30.3%	22.1%	37.2%	49.7%	26.7%	27.2%	21.3%
Bad Debt / Total Income	7.9%	4.5%	10.1%	2.1%	17.2%	33.9%	4.2%	13.9%

Source: Calculated from Audited Accounts

Table 4.7c ctd: Performance of 20 Banks in Ghana as at December, 2005

	CAL	FAMB	TTB	PBL	ICB	SBL	ABL	HFC	MAB	UNI	STB	ZIB
Return on Assets (ROA)	3.0%	2.8%	4.6%	2.2%	2.0%	1.8%	0.9%	1.5%	-0.2%	0.4%	-12.6%	-4.9%
Return on Equity (ROE)	16.1%	28.7%	38.8%	35.9%	12.5%	14.3%	11.4%	9.0%	-2.8%	3.0%	-66.1%	-6.5%
Productivity Indicators												
No. of Employees	199	138	247	445	128	118	99	173	137	93	156	64
Income per employee (¢'B)	60.2%	66.0%	60.4%	26.3%	33.1%	90.7%	41.2%	33.2%	1.5%	31.4%	13.2%	4.2%
Cost per employee (¢'B)	33.2%	40.0%	30.3%	17.9%	18.6%	52.4%	30.1%	28.6%	1.6%	25.8%	35.4%	14.5%
PBT per employee (¢'B)	23.3%	17.4%	27.5%	6.9%	10.3%	23.9%	6.0%	6.2%	-0.2%	0.9%	-23.0%	-10.4%
Int Expense/ Int Income	38.7%	50.2%	33.8%	45.2%	52.2%	36.3%	56.4%	48.0%	34.1%	37.9%	29.7%	2.8%
Net Int Income / Total Income	68.5%	72.8%	64.6%	65.7%	72.4%	55.5%	60.6%	88.6%	58.2%	57.0%	51.5%	86.1%
Comm & Fess / Total Income	24.1%	20.7%	34.8%	28.7%	18.7%	28.4%	39.4%	11.4%	33.6%	36.3%	47.6%	7.8%
Op. Expense / Total Income	55.2%	60.6%	50.2%	67.9%	56.2%	57.8%	73.0%	86.2%	108.7%	82.3%	268.6%	342.4%
Bad Debt / Total Loans	3.3%	5.0%	2.5%	1.5%	7.3%	6.8%	4.9%	1.2%	0.1%	5.3%	1.8%	1.0%
Shareholders Funds/T. Assets	18.4%	9.7%	11.9%	6.2%	16.2%	12.8%	8.1%	16.6%	5.5%	12.2%	19.1%	75.6%
Shareholders Funds/T.Loans	44.8%	20.7%	25.7%	13.0%	75.5%	42.8%	30.3%	38.1%	14.8%	28.4%	81.0%	1231.8%
Bad Debt / Total Income	10.8%	22.0%	7.6%	6.0%	16.9%	16.8%	13.0%	6.2%	4.3%	16.9%	5.7%	3.1%

Source: Calculated from Audited Accounts

4.2 Panzar and Rosse's H-Statistics

Results of recent study by Buchs and Mathisen (2005) on "Competition and Efficiency in Banking: Behavioural evidence from Ghana" which employed the Penzar and Rose framework was adopted for this work. They used annual individual bank balance sheets and income statements from 20 banks operating during 1998-2003. Their findings on market structure as shown in table 4.8 suggest that the Ghanaian banking sector is characterised by ***monopolistic competition*** according to the Panzar and Rosse classification. Their findings lies between 0 and 1 but much lower than other comparable African countries.

This means that competition in the Banking industry in Ghana is not as strong as other comparable African countries. As was highlighted in chapter three, the wider interest rate spread in Ghana is an indication of weak industry competition.

Table 4.8: H-Statistics Values for Banking System in Ghana

	All Specifications	Unscaled Specification	Scaled Specification
Average H-Statistic	0.555	0.627	0.482
Median H-Statistic	0.569	0.626	0.481
Standard Deviation	0.092	0.038	0.064

Source: Buchs and Mathisen, 2005-Competition and Efficiency in Banking: Behaviural evidence from Ghana. The H-Statistics were computed at 5% level of significance

Table 4.9: Banking Sector Market Structure in Selected Countries

Country	Period	H-Statistic	No. of banks	No. of observations
Ghana	1998-2003	0.56	13	65
Sub-Saharan Africa	1994-2001	0.58	34	106
Nigeria	1994-2001	0.67	42	186
South Africa	1994-2001	0.87	45	186

Source: Buchs and Mathisen, 2005

From table 4.9 above, it appears South Africa banking industry is more competitive than any of the comparable African countries followed by Nigeria. Interest rate spread in Ghana is much wider as depicted in table 4.10 below and emphasized in Chapter Three. Other countries operate with much narrower margins.

Table 4.10: International Comparison of Selected Banking and Institutional Indicators (In percent, unless otherwise indicated as at 2003)

	Ghana	Kenya	Mozambique	Nigeria	South Africa	Tanzania	Uganda	Zambia	SSA Average
Size of Financial Intermediaries									
Private Credit to GDP	11.8	26.8	16.7	14.4	147.2	4.9	4.0	7.5	15.2
M2 to GDP	19	43.8	5.1	25.8	87.2	18.3	13.0	16.9	24.8
Currency to GDP	10.5	13.2	15.6	10.8	28.4	8.5	8.8	6.4	13.9
Banking Industry									
Number of Banks	17	53	10	51	60	29	15	16	-
Net Interest Margin	11.5	5.0	5.9	3.8	5	6.5	11.6	11.4	8.3
Overhead Costs	7.3	3.7	4.5	7.4	3.7	6.7	4.6	11.2	5.7
Foreign bank share (asset)	53	4.8	98	11	0.6	58.7	89.0	66.6	-
Bank concentration (3 banks)	55.0	61.6	76.6	86.5	77	45.8	70.0	81.9	81.0
Non performing loans (share of total loans)	28.8	41	-	17.3	3.9	12.2	6.5	21.8	-
Capital markets									
Stock Market Capitalisation (% of GDP)	10.1	9.2	-	10.9	77.4	4.3	0.6	6	21.3
Contract enforcement									
Number of Procedures	21	25	18	23	16	26	14	1	29
Duration (Number of Days)	90	255	540	730	99	207	127	188	334
Bankruptcy									
Time in Years	-	4.6	-	1.6	2.0	3.0	2.0	3.7	3.5
Credit Market									
Credit Rights Index (0 is weakest)	1	1	3	1	2	3	1	2	2
Entry Regulations									
Number of Procedures	10	11	16	9	9	13	17	6	11
Duration (number of days)	84	61	153	44	38	35	36	40	72
Cost (percent of GNI per capacity)	111	54	100	92	135	9	199	24	255

Source: IMF, International Finance Statistics; Bank Scope; World Bank, World Development Indicators; Doing Business Indicators Database; "Tanzania Financial System Stability Assessment" IMF Staff Country Report No 03/241. Washington D.C IMF (2003). Banking Statistics and Capital market indicators are for 2001. All institutional indicators are for 2003

4.3 Concentration and Performance

Testing concentration and performance, we used Spearman's Rank Correlation Matrix to determine the relationship between concentration and performance. For the performance measure we are either using return on equity (ROE) and return on assets (ROA) and for concentration we used the 5-bank deposit market concentration. We tabulate the relationship between market concentration and profitability as follows:

Table 4.11:- Spearman rank correlation coefficient (Concentration & Performance)

	ROA	ROE	5BDCR
ROA	1.00		
ROE	(0.13)	1.00	
5BDCR	(0.31)	0.38	1.00

(5BDCR=5 Bank Deposit Market Concentration)

Table 4.11 a weak relationship between concentration and the two profitability indicators. Our findings does suggest that the basic notion that bank concentration results in monopoly profits cannot be confirmed by empirical evidence in Ghana, since the coefficients are not significant.

4.4 Bank Size and Performance

4.4.1 Regression Analysis

Alhadeff and Alhadeff (1964) compared the growth of the top 200 banks in the US over the period 1930-60 to the growth of total bank assets. They found that the top 200 banks grew more slowly than the total did. Within the top 200, the

bottom segment grew more rapidly than the top, but showed greater variance in growth rates. Rhoades and Yeats (1984) replicated this study for the period 1960-71. They too found that the largest banks grew less than the system as a whole. This points to de-concentration in banking. Scholtens (2000) also confirms that profit growth is inversely related to size when bank size is measured by assets. Scholtens (2000) findings saw profit growth positively correlated with equity. His findings indicated the utmost importance of bank soundness, rather than asset size, for sustainable bank performance. In this research work we follow the same hypothesis of Scholtens (2000) for the banking industry in Ghana as we want to find out whether profit (performance of banks in Ghana) is related to bank size.

H_1: The profit growth of banks is not related to the size

H_2: The profit of banks is related to their size.

4.4. 2 Data

The data cover the period from 1988 to 2005. The main data sources are the annual reports and accounts for the financial institutions particularly the 21 major banks in Ghana. The financial sector reforms in Ghana started in 1998. This is why we decided to use the period 1988 to 2005. The pre reforms period data is scarcely available. These financial institutions are Ghana commercial Bank, Barclays Bank of Ghana, Standard Chartered Bank Ghana, Merchant Bank Ghana, Ecobank Ghana, Agricultural Development Bank, National Investment Bank, SG-SSB Bank, CAL Bank, The Trust Bank, Amalgamated

Bank, Prudential Bank, Stanbic Bank Ghana, Unibank Limited, First Atlantic Merchant Bank, Home Finance Company Bank, Standard Trust Bank Ghana, International Commercial Bank and Metropolitan and Allied Bank.

With respect to the characteristics that might affect profit growth (GPAT) with a bank, we investigate bank assets and bank capital (equity or shareholders fund which indicates the strength of a bank). Bank assets are the traditional size indicator of a bank and this forms the basis of our hypothesis while the equity indicates the strength of a bank. We calculated the growth rates of assets and equity during 1988-2005.

We estimate the following growth equation based on other studies (Alhadeff and Alhadeff, 1964; Rhoades and Yeats, 1974; Tschoegl, 1983; Akhaveln et.al, 1977 and Scholtens, 2000).

$$\pi = \beta_0 + \beta_1 (\mathbf{GASSET}) + \beta_2 (\mathbf{GEQUITY}) + \varepsilon_t \quad (1)$$

Where

π = Growth in Profit after tax of banks.

GASSET = Growth in bank assets. The basic assumption is that being big is a relative advantage that might result in a further rise in profit. On the other hand we have to do with basic statistic property of large numbers in that the growth rate declines with size. Therefore we expect to find profit growth to become smaller with a bigger size of the bank as measured by the amount of assets. Thus, with bank profits and bank assets, it is clear that H_1

tends to be confirmed, whereas H_2 is not. This might either be due to decreasing economies of scale or simply results from basic statistical properties of large numbers. Therefore the relationship may be positive, reflecting economies of scale, or negative, reflecting greater ability to diversify assets, which results in lower risk and lower required return ($\beta_3>0$ *or* $\beta_3<0$).

GEQUITY = Growth in networth. *We expect profit growth increases with the growth in equity (size of tier-one capital). This implies that healthier banks report better profit performance than banks that are less endowed with tier-one capital hence the expected sign* $\beta 2>0$. Furthermore, the result leads to the confirmation of H_1, whereas H_2 is not confirmed.

4.4.3 Results and Analysis of Regression

Table 4.12 Summary of Regression results

SUMMARY OUTPUT		**Dependent variable : Growth PAT**		
Regression Statistics				
Multiple R	0.90			
R Square	0.81			
Adjusted R Square	0.78			
Standard Error	52.11			
Observations	16			
ANOVA				
	df	SS	MS	F
Regression	2	151,373	75,686	27.8777
Residual	13	35,294	2,715	
Total	15	186,667		
	Coefficients	Standard Error	t Stat	P-value
Intercept	-11.9	30.9	-0.4	0.7
Growth in Equity	0.8	0.1	7.5	0.0
Growth in Asset	0.8	0.8	1.0	0.3

The results in table 4.8 above show that growth in equity is statistically significant while asset growth which indicates the size is not significant at 5% level. The regression analysis shows that profitability and asset growth are statistically insignificant. The only variable that explains bank profitability is the growth in equity.

To be able to confirm our regression analysis we computed share of assets, return on equity and assets from audited accounts of 5 top banks, 3 medium banks and 1 small bank. The computed figures assisted us to affirm our regression results. We provide the computed figures as follows:

Table 4.13a: A Share of Assets of some Selected Banks (5 Big, 2 Medium and 1 small)

	1998	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
GCB	21%	18%	18%	26%	24%	20%	18%	16%
SCB	19%	23%	25%	16%	16%	15%	14%	14%
BBG	14%	14%	14%	16%	14%	15%	15%	14%
SG-SSB	13%	11%	10%	9%	9%	8%	8%	8%
EBG	8%	9%	8%	7%	7%	7%	8%	9%
ADB	10%	10%	10%	10%	10%	12%	10%	9%
MBG	5%	6%	4%	4%	4%	4%	5%	5%
TTB	2%	2%	2%	2%	2%	2%	3%	3%

Source: Computed from the audited accounts

Table 4.13b: ROE of some Selected Banks 9 (5 Big, 2 Medium and 1 small)

	1998	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
GCB	24%	44%	61%	51%	40%	20%	27%	18%
SCB	77%	63%	60%	52%	47%	44%	43%	36%
BBG	45%	59%	87%	82%	54%	55%	52%	50%
SG-SSB	33%	33%	46%	42%	28%	27%	29%	23%
TTB	28%	24%	45%	40%	34%	41%	52%	45%
MBG	37%	36%	15%	24%	12%	16%	32%	24%
EBG	40%	44%	31%	28%	41%	44%	43%	43%
ADB	24%	28%	43%	32%	17%	17%	20%	12%
INDUSTRY	36%	39%	50%	42%	33%	30%	32%	22%

Source: Computed from the audited accounts

Table 4.13c: ROA of some Selected Banks 9 (5 Big, 2 Medium and 1 small)

	1998	1999	2000	2001	2002	2003	2004	2005
GCB	3%	5%	6%	4%	4%	2%	3%	2%
SCB	7%	5%	4%	5%	4%	5%	4%	5%
BBG	4%	5%	7%	7%	6%	6%	6%	5%
SG-SSB	5%	5%	6%	7%	4%	4%	4%	3%
TTB	5%	3%	4%	4%	3%	3%	4%	5%
MBG	7%	4%	3%	4%	1%	2%	4%	3%
EBG	5%	3%	4%	5%	4%	4%	4%	4%
ADB	5%	6%	8%	7%	4%	3%	4%	2%
INDUSTRY	5%	5%	6%	5%	4%	3%	4%	3%

Source: Computed from audited accounts

Ghana Commercial Bank (GCB) the largest bank in Ghana with an average market share of more than 20% saw its profit performance declining from 2000 to 2005. TTB, one of the small/medium banks in Ghana saw its profit performance improving from 2000 to 2005. Therefore Tables 4.13 a, b and c seem to indicate that size does not matter in performance. Small/medium bank like TTB is more profitable than Ghana Commercial Bank (GCB), the biggest bank in Ghana. The tables (4.13a-c) confirm our regression results. We therefore accept the hypothesis (H1) that size is not related to profit performance (and reject H2). Our empirical results seem to suggest that size is unrelated to profit performance in the banking industry in Ghana.

4.5 CAMEL Framework

This section uses the CAMEL approach to analyse capitalization, asset quality, solvency, profitability, efficiency and liquidity in the banking industry.

4.5.1 Capital Adequacy Ratio (CAR)

This ratio measures the solvency state of a bank. It is measured by Equity (i.e. Shareholders' funds) as a percentage of total assets. The new Banking Act 2004 (Act 673) requires all banks to maintain a minimum ratio of total capital to risk-weighted assets of 10 percent at all times. The higher the CAR, the higher the level of protection available to depositors and the more solvent the industry.

Table 4.14a : Trend Analysis of CAR %

	1989	**1990**	**1990 -'95**	**1996 -'99**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Capital Adequacy Ratio	(4.6)	10.9	12.3	12.7	11.1	12.5	11.6	11.0	11.9	12.5

Source : Calculated from Audited Accounts of Banks'

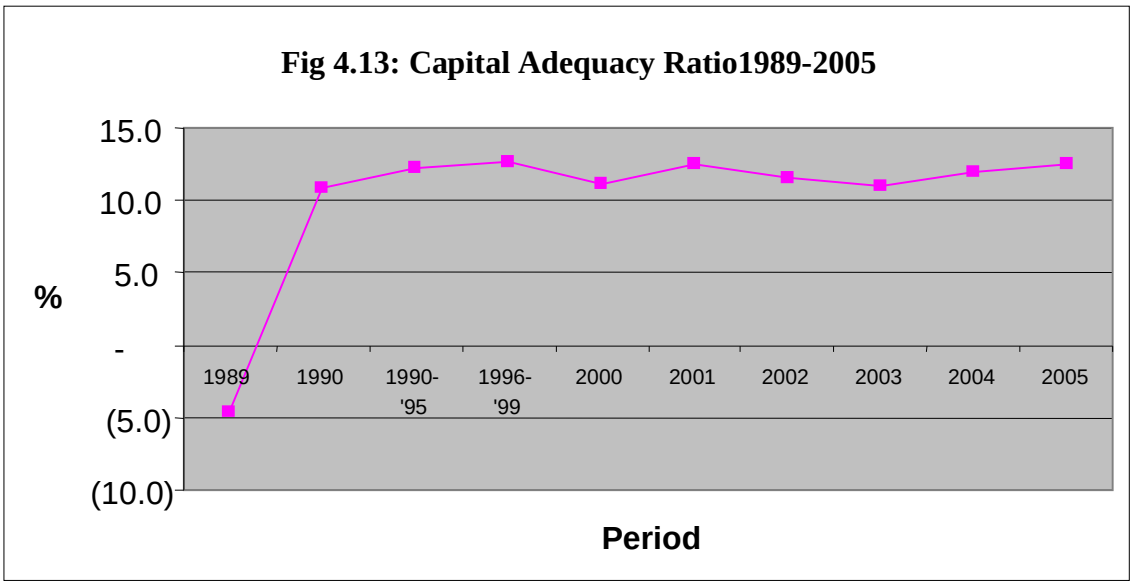
Industry CAR has risen significantly from negative 4.6% in 1989 to 10.9% in 1989. It averaged 12.3% and 12.7% between 1990-1995 and 1996-1999 respectively and as at end-December 2005 it stood at 12.5%. The increase in CAR in 2005 was largely the result of the revised mode of calculation of the capital adequacy ratio stipulated in the new Banking Act, 2004, Act 673, which frees more capital for banks in risk assumption. There has also been an increase in networth as banks injected more capital to meet the new minimum capital requirement of ¢70.00 billion to do banking business. Besides, the new entrants especially from Nigeria have increased their stated capital above the required minimum. At the end of year 2005, all the major banks complied with the statutory minimum capital adequacy ratio of 10.0%, however few banks maintained thin covers in excess of the statutory requirement.

In terms of bank groupings, it appears that GCB, ADB and SG-SSB are well capitalised in the "big banks' category. SCB and BBG however maintained just a thin cover. In the medium banks' category, NIB is well capitalised followed by MBG with EBG and TTB in that order. Within the small banks, ICB and SBL topped the group with a CAR of 26.3% and 24.6% respectively. PBL appears to be the least capitalised bank. On the average, the big banks seem to be well capitalised though there are much variations in terms of bank by bank comparison. The CAR for banks in the "small banks" group appear to be very high possibly due to the fact that most of these banks particularly, SBL and ICB are relatively new in the industry with lower assets base.

Table 4.14b: Capital Adequacy = Equity/Total Assets (%)

Big Banks	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**Average**
GCB	13.2	11.5	10.0	8.7	9.4	9.3	10.7	12.3	10.7
SCB	9.6	7.8	6.1	9.1	9.3	10.6	10.1	12.6	9.4
BBG	9.0	8.6	8.5	9.0	11.2	10.3	10.7	10.9	9.8
SG-SSB	14.8	16.2	13.9	16.1	15.1	15.6	15.1	13.6	15.1
ADB	20.5	20.4	18.1	22.6	21.1	15.5	18.1	18.1	19.3
Average Big Banks	**13.4**	**12.9**	**11.3**	**13.1**	**13.2**	**12.3**	**12.9**	**13.5**	
Medium Banks									
MBG	19.0	10.8	16.5	15.5	11.8	10.2	13.2	13.5	13.8
EBG	11.6	7.9	13.2	17.8	8.7	8.1	8.7	8.7	10.6
TTB	17.7	13.0	8.8	9.4	7.8	7.6	8.0	10.3	10.3
NIB	17.7	18.9	27.5	30.9	19.9	12.6	11.5	12.0	18.9
Average Medium Banks	**16.5**	**12.7**	**16.5**	**18.4**	**12.0**	**9.6**	**10.3**	**11.1**	
Small Banks									
SBL	n/a	80.3	23.2	15.4	7.8	19.6	12.8	12.8	24.5
PBL	6.8	8.3	6.7	5.7	5.2	4.9	5.5	6.2	6.2
ICB	47.5	43.2	31.3	24.4	18.6	9.7	19.5	16.5	26.3
CAL	23.3	15.9	14.8	14.6	13.7	12.6	20.1	18.9	16.7
Average Small Bank	**25.8**	**22.4**	**17.6**	**14.9**	**12.5**	**9.1**	**15.0**	**13.9**	16.4
INDUSTRY	**13.5**	**11.8**	**11.1**	**12.5**	**11.6**	**11.0**	**11.9**	**12.5**	

Source: Calculated from Audited Accounts of Banks'



4.5.2 Asset Quality

The quality of assets is measured by the provision ratio, non-performing loans ratio (NPL) and the charge for bad and doubtful debts to net loans and advances. This is an indicator of the "health" status of banks'. It is expected that banks' should be able to recover all debts. Failure to recover bad loans will lead to poor quality assets, illiquidity and insolvency.

The quality of loans and advances of the banking industry has improved tremendously over the years. This was reflected in a decline of the provision ratio (provision for bad and doubtful debts to gross loans and advances) from 18.19% at end December 2002 to 15.36% at end December 2003 and further down to 10.85% by end-December 2005. Similarly, the non-performing loans ratio (calculated as the ratio of non-performing loans to total gross loans and advances) also fell from 22.73% at end December 2002 to 12.95% by end-December 2005. The level was however marginally above the prudentially

acceptable limit of 10.00%. The improvement recorded in the quality of the loan portfolio was largely explained by the expansion in the credit base of the banking industry and to a lesser extent, recoveries.

Table 4.15a: Classification of Loans and Advances

Classification	**Dec-01**	**Dec-02**	**Dec-03**	**Dec-04**	**Dec-05**
	(¢bn)	**(¢bn)**	**(¢bn)**	**(¢bn)**	**(¢bn)**
Current	n/a	4,960.61	8,002.06	10,380.32	15,029.03
Olem	n/a	405.81	620.44	365.51	543.98
Substandard	n/a	306.44	370.53	430.22	379.62
Doubtful	n/a	399.69	581.33	572.93	628.47
Loss	n/a	872.81	933.48	1,062.95	1,314.62
Total Gross Loans	**6,275.10**	**6,945.36**	**10,507.84**	**12,811.93**	**17,934.12**
Provisions	815.76	1,263.56	1,613.54	1,674.27	1,945.11
Provisions As % of Gross Loans	13.00	18.19	15.36	13.07	10.85
Non-Performing Loans (NPL)	1,229.92	1,578.94	1,885.34	2,066.10	2,322.71
NPL as % Gross Loans	19.60	22.73	17.94	16.13	12.95
Growth in Loans		10.68	51.29	21.93	39.98
Growth in NPL		28.38	19.41	9.59	12.42

Source: Bank of Ghana

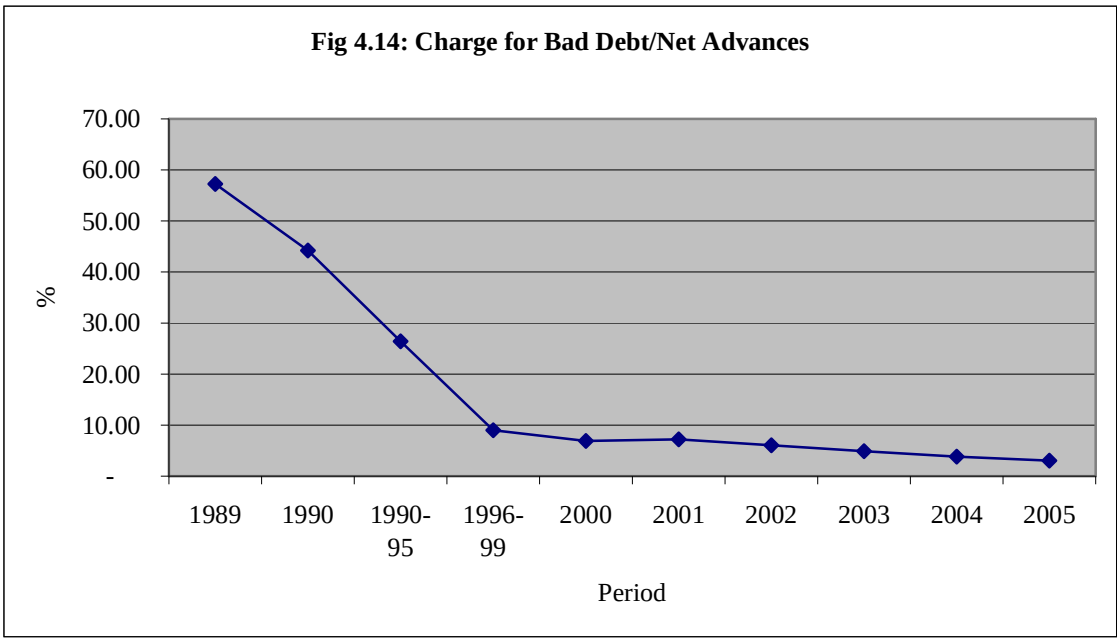
The charge for bad and doubtful debt to net advances ratio also show consistent improvement in asset quality. A high ratio of bad debts provision to net loans and advances is an indication of inefficiency in credit administration. The ratio has fallen from as high as 57.3% in 1989 to 44.2 % in 1990. It averaged 26.4% and 9% between 1990-1995 and 1996-1999 respectively. The health status of banks witnessed deterioration between 2000 and 2002. The increase in bad

loans in this period were attributed to the prevailing adverse economic conditions (high inflation, depreciation of the cedi and high interest rates) making it difficult for most borrowers to pay back their loans. This trend has however been reversed since 2003 with provision ratio improving to 3% in 2005. This reflects the rapid build-up of the loan asset book of banks in the past few years and is also an indication of prudent management of banks' credit portfolios. The Ghanaian banking industry is thus becoming more solvent and liquid.

Table 4.15b : Trend Analysis of Asset Quality %

	1989	1990	1990-95	1996-99	2000	2001	2002	2003	2004	2005
Charge for Bad Debt/Net Advances	57.25	44.2	26.40	9.00	6.90	7.22	6.03	4.89	3.81	3.05

Source : Calculated from Audited Accounts of Banks'



In terms of asset quality, EBG is the best with an average ration of 1.1% between 1998 and 2005 followed by BBG with 2%. NIB, ICB, SBL, and ADB

are the banks with worse asset quality with a ratio of 8.2%, 7.3%, 6.7% and 5% respectively in 2005 (see table 4.15C below).

Table 4.15c: Asset Quality = Provision/Net Advances (%)

Big Banks	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**Average**
GCB	1.8	3.0	9.7	9.8	13.9	6.4	4.7	2.9	6.5
SCB	0.6	0.5	7.1	8.3	0.7	(1.0)	0.4	1.4	2.2
BBG	1.2	2.0	2.1	1.3	1.1	3.3	2.2	2.8	2.0
SG-SSB	3.0	3.8	3.6	7.4	6.4	7.5	3.0	0.7	4.4
ADB	3.2	4.6	8.2	10.9	13.4	11.0	12.2	5.0	8.6
Average Big Banks	**2.0**	**2.8**	**6.1**	**7.5**	**7.1**	**5.4**	**4.5**	**2.5**	
Medium Banks									
MBG	3.7	3.2	11.7	6.0	13.8	9.9	5.7	3.2	7.1
EBG	0.0	0.3	1.5	1.8	1.2	2.0	1.0	1.4	1.1
TTB	1.7	1.0	2.0	2.0	0.9	4.0	4.9	2.5	2.4
NIB	3.0	11.3	21.5	5.5	5.8	8.9	4.6	8.2	8.6
Average Medium Banks	**2.1**	**3.9**	**9.1**	**3.8**	**5.4**	**6.2**	**4.1**	**3.8**	
Small Banks									
SBL	n/a	0.0	1.4	2.0	3.3	2.9	6.5	6.7	3.2
PBL	0.0	6.1	1.6	1.3	2.5	3.2	2.0	1.7	2.3
ICB	6.5	5.5	26.8	5.9	4.0	2.3	3.3	7.3	7.7
CAL	5.0	1.1	0.3	1.2	2.6	3.4	2.6	4.2	2.5
Average Small Banks	**3.8**	**3.2**	**7.5**	**2.6**	**3.1**	**2.9**	**3.6**	**5.0**	4.0
INDUSTRY	**1.9**	**2.6**	**6.9**	**7.2**	**6.0**	**4.9**	**3.8**	**3.0**	

Source: Calculated from Audited Accounts of Banks'

4.5.3 Profitability

Profitability ratios measure the extent to which resources are been utilised to enhance shareholder value. Two most widely used profitability ratios are return on assets (ROA) and return on equity (ROE).

Table 4.16a: Return on Assets and Return on Equity

	1989	1990	1990-95	1996-99	2000	2001	2002	2003	2004	2005
ROA	-3.5	5.5	3.4	5.0	5.5	5.2	3.8	3.3	3.8	3.2
ROE	-76.6	50.3	27.5	39.6	50.0	41.7	32.6	30.3	32.1	25.3

Source: Calculated from Audited Accounts of Banks'

4.5.3.1 Return on Assets (ROA)

ROA basically measures managerial efficiency. It shows management's ability at using banks' resources to generate revenue. It is calculated as:

$$ROA = \frac{Profit\ After\ Tax}{Total\ Assets} \times 100$$

Generally, a high ratio is an indication of efficient use of company's assets and vice versa in any given financial year. ROA in the banking industry improved significantly from negative 3.5% in 1989 to 5.5% in 1990 and the average for 1990-1995 and 1996-1999 was 3.4% and 5% respectively. It peaked at 5.5% in 2000 and has been falling since to 3.2% by 2005.

4.5.3.2 Return on Equity (ROE)

ROE indicates how much was earned for each unit invested by the owners. It is a relatively straightforward benchmark for investors to compare the company's use of its equity against other investments. It is determined as:

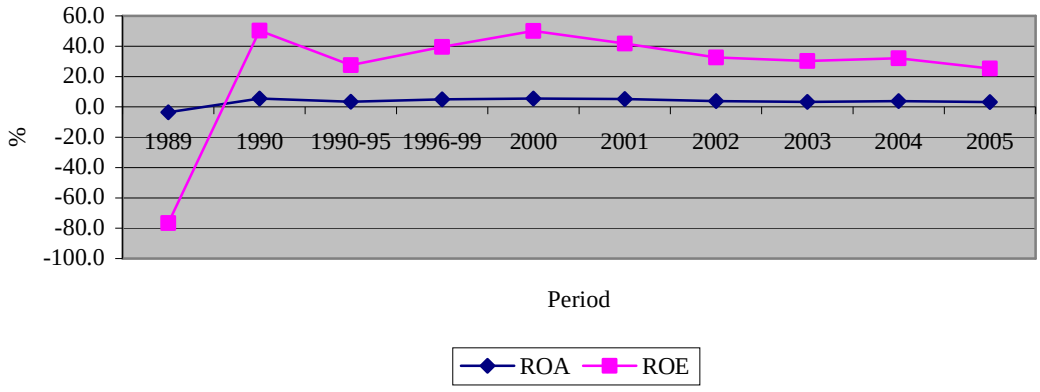
$$ROE = \frac{Profit\ after\ Tax}{Total\ Shareholders'\ Funds} \times 100$$

ROE has followed a similar trend as that of ROA. In 1990 ROE was 50.3% and averaged 27.5% in 1990-1995 and further to 39.6% in 1996-1999 from a negative return of 76.6% in 1989. ROE has experienced a nosedive trend since 2000 from a peak of 50% to 25.3% by 2005.

The period 2000-2005 witnessed downward trend in profitability as seen in falling ROA and ROE in the industry. The drop in profitability was partly due to the following:

- High operating cost of most banks mostly from infrastructural cost (technology) and staff cost.
- Falling interest rates in the economy. Reduction in bank lending rates from an average of 47% in 2000 to 26% in 2005 and reduction in treasury bill rates (91-day) from 42% in 2000 to 11.5% in 2005.
- High non-performing assets due to macroeconomic instability particularly high interest rates and depreciation of the cedi in the late 1990s leading to high loan default.
- Increasing competition due to new entrants especially from Nigeria leading to shrinking margins.
- Increase in asset base of banks from ¢12.0 trillion in 2004 to ¢36.8 trillion in 2005.

Fig 4.15: Return on Assets (ROA) and Return on Equity (ROE)



Analysis of profitability ratios for the various bank categories reveals interesting developments (see table 4.16b and 4.16c). The data show that most of the medium and small banks namely EBG, TTB, MBG, NIB, CAL, and PBL are doing far better than the big banks in terms of ROA and ROE, with the exception of SCB and BBG (the two foreign banks in the country). This confirms the argument that profit performance is independent of bank size but the adoption of appropriate strategy is the main determining factor of performance as shown in the Balanced Scorecard below.

Fig 4.16: Balanced Scorecard

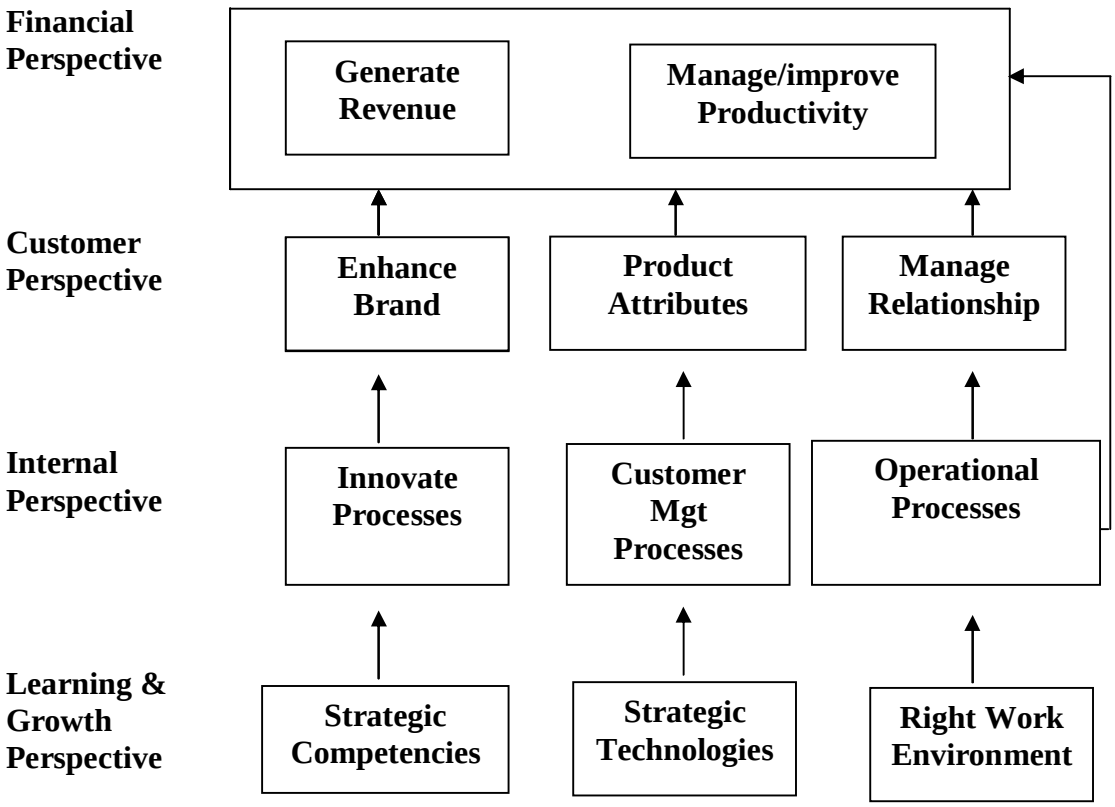


Table 4.16b: ROA = PAT/Total Assets (%)

Big Banks	1998	1999	2000	2001	2002	2003	2004	2005	Average
GCB	3.2	5.0	6.1	4.4	3.8	1.8	2.9	2.2	3.7
SCB	7.4	4.9	3.7	4.7	4.3	4.7	4.4	4.5	4.8
BBG	4.0	5.1	7.4	7.4	6.0	5.6	5.5	5.5	5.8
SG-SSB	4.8	5.3	6.3	6.7	4.2	4.2	4.4	3.2	4.9
ADB	5.0	5.6	7.8	7.2	3.5	2.6	3.6	2.2	4.7
Average Big Banks	**4.9**	**5.2**	**6.3**	**6.1**	**4.4**	**3.8**	**4.2**	**3.5**	4.8
Medium Banks									
MBG	7.0	3.9	2.5	3.7	1.5	1.6	4.2	3.3	3.5
EBG	4.7	3.5	4.0	5.0	3.6	3.6	3.8	3.7	4.0
TTB	4.9	3.2	4.0	3.7	2.7	3.1	4.1	4.6	3.8
NIB	2.6	4.6	15.4	4.8	3.8	3.2	3.5	3.1	5.1
Average Medium Banks	**4.8**	**3.8**	**6.5**	**4.3**	**2.9**	**2.9**	**3.9**	**3.7**	
Small Banks									
SBL	n/a	(29.0)	2.0	1.6	1.1	2.0	1.6	1.9	-2.7
PBL	2.2	2.4	2.7	2.3	1.9	1.9	2.1	2.2	2.2
ICB	8.5	4.4	4.5	3.9	2.7	2.1	2.3	2.0	3.8
CAL	4.8	4.5	6.7	3.3	4.5	3.7	4.2	2.7	4.3
Average Small Banks	**5.2**	**(4.4)**	**4.0**	**2.8**	**2.5**	**2.4**	**2.6**	**2.2**	2.1
INDUSTRY	**4.9**	**4.7**	**5.5**	**5.2**	**3.8**	**3.3**	**3.8**	**3.2**	

Table 4.16c: ROE = PAT/Equity (%)

Big Banks	1998	1999	2000	2001	2002	2003	2004	2005	Average
GCB	24.3	43.7	61.0	51.0	39.9	19.8	27.4	17.8	35.6
SCB	77.0	62.7	60.2	52.2	46.9	44.0	43.5	35.8	52.8
BBG	44.8	59.1	86.9	82.1	53.9	54.8	51.8	50.2	60.4
SG-SSB	32.8	32.7	45.8	41.6	27.6	26.9	28.8	23.4	32.4
ADB	24.2	27.6	43.0	32.0	16.7	17.0	19.7	12.1	24.0
Average Big Banks	**40.6**	**45.2**	**59.4**	**51.8**	**37.0**	**32.5**	**34.2**	**27.8**	
Medium Banks									
MBG	36.6	35.8	15.3	24.2	12.3	16.2	32.0	24.4	24.6
EBG	40.3	43.8	30.6	28.2	41.2	43.7	43.5	43.2	39.3
TTB	27.6	24.5	45.3	39.8	34.3	40.9	52.0	44.9	38.6
NIB	14.6	24.4	55.9	15.7	19.0	25.0	30.3	25.8	26.3
Av. Medium Banks	**29.8**	**32.1**	**36.8**	**27.0**	**26.7**	**31.5**	**39.4**	**34.6**	
Small Banks									
SBL	n/a	(36.1)	8.4	10.1	14.4	10.2	12.9	14.6	4.9
PBL	33.1	29.3	40.8	40.3	35.9	39.5	37.6	35.6	36.5
ICB	17.8	10.1	14.5	16.0	14.3	21.3	11.7	12.4	14.8
CAL	20.4	28.2	45.1	22.4	32.8	29.0	21.0	14.6	26.7
Av. Small Banks	**23.8**	**7.9**	**27.2**	**22.2**	**24.4**	**25.0**	**20.8**	**19.3**	21.3
INDUSTRY	**36.0**	**39.5**	**50.0**	**41.7**	**32.6**	**30.3**	**32.1**	**25.3**	

Source: Calculated from Audited Accounts of Banks'

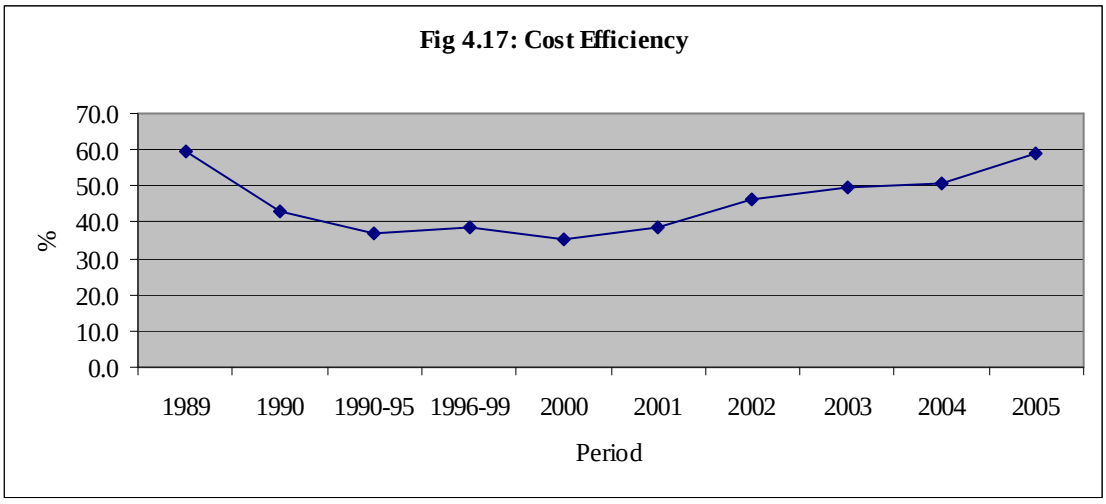
4.5.4 Cost Efficiency

The transaction costs ratio calculated as, **Total Operating Costs over Total Operating Income** measures cost efficiency in the banking industry. The transaction costs ratio shows the amount of resources spent to generate a unit of income. Cost efficiency ratio fell from 59.4% in 1989 to 37% - 39% in the 1990s and has averaged 47% in the 2000s. Table 4.17a shows that transaction cost ratio in the banking industry has been rising since 2001. This can be interpreted to mean dwindling efficiency in the operation of banks. The ratio has risen from 36% in 2000 to 59.1% in 2005 mainly due to rising operating cost of banks particularly technology and staff cost and dwindling income due to falling interest rates and competition in the industry.

Table 4.17a: Total Operating Cost/Total Operating Income

	1989	1990	1990-95	1996-99	2000	2001	2002	2003	2004	2005
Total Operating Cost/ Total Op. Income	59.4	43.2	36.7	38.7	35.5	38.7	46.2	49.5	50.9	59.1

Source : Calculated from Audited Accounts of Banks'



BBG stands tall as the most efficient bank using the cost efficiency measure with a ratio averaging 41.2% between 1998-2005, followed by MBG (41.6%), EBG (42.6%), and SCB (43.3%). This explains why these are among the best profitable banks in the industry. GCB, NIB, PBL, SG-SSB, and ADB seem to be performing badly in terms of cost efficient with a ratio of 76.9%, 76%, 67.8%, 64.9%, and 63.6% respectively in 2005 (table 4.17b refers). The average for SBL is exceptionally high because it begun operations in 1999 and made a substantial loss in that year. Notwithstanding, the small banks seem to be less efficient in terms of cost management.

Table 4.17b: Cost Efficiency = Tot. Op. Exp/Tot. Op. Income (%)

Big Banks	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**Average**
GCB	59.4	43.1	30.4	30.5	42.0	57.4	63.8	76.9	50.4
SCB	34.1	36.4	38.7	43.4	50.3	49.2	48.3	46.0	43.3
BBG	60.2	47.7	32.1	32.6	37.5	39.5	37.8	41.9	41.2
SG-SSB	38.1	44.2	39.2	33.8	41.9	51.9	56.5	64.9	46.3
ADB	51.8	47.8	37.8	37.9	45.2	44.5	47.8	63.6	47.0
Average Big Banks	**48.7**	**43.9**	**35.6**	**35.6**	**43.4**	**48.5**	**50.8**	**58.7**	45.7
Medium Banks									
MBG	36.2	35.8	30.5	48.3	48.6	46.4	38.9	48.2	41.6
EBG	36.8	41.9	35.2	43.7	44.7	44.3	46.4	48.2	42.6
TTB	55.8	59.9	47.2	57.2	61.9	50.5	46.4	48.6	53.4
NIB	67.6	48.0	23.3	56.8	57.7	46.8	50.3	76.0	53.3
Av. Medium Banks	**49.1**	**46.4**	**34.1**	**51.5**	**53.2**	**47.0**	**45.5**	**55.2**	
Small Banks									
SBL	n/a	973.6	87.9	87.3	83.9	66.2	63.3	57.5	202.8
PBL	77.2	73.5	66.5	64.1	64.7	68.1	65.7	67.8	68.5
ICB	38.0	48.2	46.3	59.0	61.0	65.6	59.0	53.8	53.9
CAL	54.9	47.4	42.0	56.6	50.3	47.3	48.1	53.4	50.0
Av. Small Banks	**56.7**	**285.7**	**60.7**	**66.8**	**65.0**	**61.8**	**59.0**	**58.1**	89.2
INDUSTRY	**47.4**	**44.4**	**35.5**	**38.7**	**46.2**	**49.5**	**50.9**	**59.1**	

Source: Calculated from Audited Accounts of Banks'

The above analyses show that the banking system in Ghana is well-capitalised, profitable, liquid, sound and stable but less efficient. This implies that there is capacity for improvement and expansion in the banking industry.

CHAPTER FIVE

5.0 FINDINGS, CONCLUSIONS AND RECOMMENDATION

5.1 FINDINGS

Our findings are as follows:

- The market concentration of the top six major banks in Ghana points to oligopolistic competition and that the reforms in the financial sector have not been able to generate enough competition in the banking industry in Ghana. This means that the new entrants have not been able to penetrate into the top. The banking industry has enough opportunities for growth and expansion as evidenced by the performance of Ecobank Ghana Limited.
- There is zero sum game among the top four banks (GCB, SCB, BBG and SG-SSB) in the sense that the while the biggest bank (GCB) had lost its market share of 53% as at 1988 (19.2% in 2005), the other three banks SCB, BBG and SG-SSB had gained.
- The only bank that has found its way among the top after liberalization is Ecobank. The small banks are less competitive in terms of market share and profitability due to their small capital base.
- There is evidence of leadership-followership tendencies among banks in Ghana in the area of pricing as evidenced by much wider interest rate spread. The wide spread is attributed to high transaction cost. For example, GCB the biggest bank in Ghana had a cost/income ratio of 78% in 2005. The industry cost/income ratio is now more than 60%, indicating inefficiencies in the banking industry.

- PR/H-Statistic seems to suggest monopolistic competition and H-Statistic for Ghana banking industry is far lower than other comparable African countries.
- Spearman's Rank Correlation Coefficient Matrix seems to suggest that concentration and profitability are not statistically related in the banking industry in Ghana.
- Regression results seem to suggest that bank size and performance are statistically insignificant. This means that size does not matter in terms of profit and that what matters is equity (tier one capital i.e. shareholders funds).
- Another inference is that foreign-owned banks (BBG, SCB and Ecobank) are more profitable than the locally-owned banks (GCB, ADB, NIB and MBG). Also, medium and small banks are more profitable than big banks with the exception of BBG, SCB and Ecobank.
- The improvement in the quality of the loan portfolio was largely due to the expansion in the credit base of the banking industry as a result of reduction in reserve requirement.
- Staff Cost and infrastructural cost (technology) are the main sources of high operating costs.

5.2 Conclusion

The main conclusion of this paper which follows the same conclusion of Buchs and Mathisen (2005) is that banks in Ghana appear to behave in a non-competitive manner that could hamper financial intermediation. High Profitability of banks in Ghana due to the wider interest rate spread account for this uncompetitive behaviour of banks. Two other key conclusions from this research are:

- The assertion that concentration results in monopoly profit cannot be confirmed by empirical evidence in Ghana; and
- Bank size in terms of assets growth and profit performance are statistically insignificant at 5% level of significant and that size does not matter in profit performance. It is rather growth in equity which matter for profit performance. The results of this research underline the utmost importance of bank soundness rather than asset size, for sustainable bank performance. The results clearly confirm the relevance of individual bank characteristics for profit growth.

5.3 Policy Recommendation

Based on above findings and conclusions we recommend the following as a policy for banks' strategic direction:

- The need to sustain and deepen the current government fiscal prudence so as to bring down interest rates and reduce banks' spread in Ghana.
- The need to reduce the transaction cost (particularly staff cost and investment cost-telecommunication).

- Addressing the occurrence of losses on the loan portfolio particularly in the local banks
- The regression results clearly confirm the relevance of individual bank characteristics for profit growth which is size of bank's tier-one capital. Bank size is irrelevant for profit growth as per Ghana Commercial Bank profit performance. Appropriate strategy is the key determining factor of profitability.
- The SWOT analysis in the banking industry in Ghana seems to indicate that foreign-owned banks are technologically advanced, more efficient and profitable than locally-owned banks. Macroeconomic stability is essential for the development of the banking industry in general but more important to the individual banks is the improvement in their credit risk and operational risk management. This is a key lesson for banks particularly, locally owned banks.
- Encouraging the development of compatible IT infrastructure so that banks can pool resources and lower technological cost in the industry to enhance efficiency.
- There is the need for promotion and development of savings culture. This calls the introduction of innovative and attractive products and stepping up savings mobilisation drive as well as ensuring confidence and credibility in the banking system to attract prospective depositors.
- Ensuring sustainable growth of the economy and the private sector in particular to boost income levels as well as savings and investment.
- There is the need for progressive reduction in reserve requirements, tariffs and charges and lending rates as macroeconomic stability is

entrenched to reduce the cost of banking services and increase competition.

- There is the need for consolidation and mergers particularly among the small banks to expand their capital base in order to make them stronger and competitive.

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Appendices

Appendix 1 : Macroeconomic Variables

	Rate of Inflation (% pa)		Change in Real Exchange Rate (% pa)		Real Rate of Interest (% pa)	
	1980-89	1990-95	1980-89	1990-95	1980-89	1990-95
Cameroon	8.8	6.8	1.1	(2.2)	0.0	3.4
Ghana	36.7	24.8	(3.5)	(1.6)	(17.6)	7.8
Kenya	11.0	20.4	(2.7)	3.6	2.3	4.9
Mauritius	10.1	7.8	(2.3)	4.1	2.9	3.3
Zambia	30.8	71.7	(1.4)	1.4	(10.5)	(47.6)
Zimbabwe	11.9	22.9	(3.0)	(2.1)	(3.4)	1.6

Source : Teal (March 1999)

Appendix 2: Sectoral Percentage Contribution to Overall Growth (1995-2005)

Sector	**1995**	**1997**	**1999**	**2000**	**2002**	**2003**	**2004**	**2005**
Agriculture	36.3	36.6	36.5	36.0	34.4	41.4	46.7	41.4
Industry	24.9	25.4	25.2	25.2	25.9	24.0	22.1	23.9
Service	28.1	28.7	29.2	28.1	31.0	26.7	24.3	27.7

Source: 2006 Budget Statement, The State of the Ghanaian Economy in 2000

Appendix 3: Key Macroeconomic Indicators 1983-2005

Year	Growth in Real GDP	Interest Rate	Exchange Rate (¢/$)	Inflation (Annual Av.)	Depreciation of the Cedi
1983	0.7	18.0	3.5	122.8	20.0
1984	2.6	18.5	35.3	39.7	90.1
1985	5.1	20.5	54.1	10.3	34.8
1986	5.2	23.5	89.3	25.6	39.4
1987	4.8	26.0	147.1	39.8	39.3
1988	6.2	26.0	200.0	31.4	26.5
1989	5.1	26.0	270.3	25.2	26.0
1990	3.3	25.3	326.3	37.2	17.2
1991	5.3	30.5	367.8	18.0	11.3
1992	3.9	24.0	437.1	10.1	15.9
1993	5.3	35.0	649.1	25.0	32.7
1994	3.8	30.0	956.7	24.9	32.2
1995	4.5	41.5	1,446.10	58.50	33.8
1996	5.2	42.8	1,740.40	46.60	16.9
1997	5.1	42.5	2,250.00	27.90	22.6
1998	3.7	26.8	2,346.00	15.20	4.1
1999	4.4	31.5	3,500.70	12.40	33.0
2000	3.7	38.8	6,889.30	25.20	49.2
2001	4.2	27.0	7,255.20	32.90	5.0
2002	4.5	24.8	7,932.30	14.80	8.5
2003	5.2	18.1	8,697.50	26.70	8.8
2004	5.8	16.4	9,004.60	12.60	3.4
2005	5.8	11.5	9,088.18	15.10	0.9

Sources : 2006 Budget Statement

Appendix 4: Date of Establishment and Nature of Business of Banks

INITIALS	BANK	DATE OF ESTABLISHMENT	NATURE OF BUSINESS
GCB	Ghana Commercial Bank	1952	Universal Bank
BBG	Barclays Bank Ghana	1918	Universal Bank
SCB	Standard Chartered Bank	June,1896	Universal Bank
SG-SSB	SG-SSB Bank Limited	1976	Universal Bank
ADB	Agricultural Development Bank	1965	Development Bank
TTB	The Trust Bank	1994	Commercial Bank
NIB	National Investment Bank	1963	Development Bank
MBG	Merchant Bank Ghana Limited	March,1972	Universal Bank
EBG	Ecobank Ghana Limited	April,1990	Universal Bank
CAL	CAL Merchant Bank	1991	Merchant Bank
FAMBL	First Atlantic Bank	1995	Merchant Bank
ABL	Amalgamated Bank	2000	Merchant Bank
HFC	HFC Bank Limited	2002	Universal Bank
PBL	Prudential Bank Limited	1997	Commercial Bank
MAB	Metropolitan & Allied Bank	1995	Commercial Bank
STB	Standard Trust Bank	2005	Universal Bank
Zenith	Zenith Bank	2005	Universal Bank
GTB	Guaranty Trust Bank	2006	Universal Bank
INTER	Intercontinental Bank Plc	2006	Universal Bank
ICB	International Commercial Bank	1996	Commercial Bank
UNI	Unibank Ghana Limited	1999	Commercial Bank
SBL	Stabic Bank Ghana Limited	2000	Commercial Bank

BIG BANKS
MEDIUM-SIZED
SMALL BANKS