

UNIVERSITY OF CAPE COAST

ANALYSIS OF SHAREHOLDERS' ECONOMIC VALUE ADDED OF
SELECTED LISTED BANKS IN GHANA (2006-2010)

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SELECTED LISTED BANKS IN GHANA (2006-2010)

BY

PADMORE ODURO

THESIS SUBMITTED TO THE DEPARTMENT OF ACCOUNTING AND
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DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere.

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Candidate's Signature: Date:

Supervisors' Declaration

We hereby declare that the preparation and presentation of this thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

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ABSTRACT

The study analysis shareholders' economic value added (EVA) as a performance measure of selected listed Banks in Ghana to provide evidence about its ability as a measure compared to conventional accounting ratios: return on equity (ROE), return on assets (ROA) and earning per share (EPS).

To achieve this, EVA of listed banks on the Ghana Stock Exchange was compared with traditional accounting ratios ROE, ROA and EPS in relation to share price (SP) and MVA with the aim of assessing value for shareholders.

Purposive sampling technique was used in selecting eight banks listed on the Ghana Stock Exchange from 2006 to 2010. Secondary data was consulted and panel regression technique generalized least square (GLS) model was employed.

The study concludes that, variation in EVA is highly significant in explaining variation in both SP and MVA than reported earnings. However, ROE performed better than EVA in explaining variation in MVA but EVA performed better in explaining variation in SP.

The study therefore recommends that listed banks consider the use of EVA as a performance measure for shareholder value maximization.

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DEDICATION

This work is dedicated to my lovely wife Stella Twenewaa Kyeremeh and
daughter Neria Nana Yaa Oduro.

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LIST OF ABBREVIATIONS

CFROI - Cash Flow Return on Investment

CC - cost of capital

EPS - earnings per share

EVA - economic value added.

EVAs - economic value added per share

EVStd - economic value added standard

EVAbkg - economic value added banking sector

IC - Invested Capital

Ke - cost equity capital

MVA - Market Value Added

MVAs - Market Value Added per share

NOPAT - Net Operating Profit after Tax

ROE - return on equity

ROA - return on asset

ROIC - return on invested capital

SVA - Shareholder value added

SP - Share Price

TSR - Total shareholder Returns

TA - Total Assets

VA - Value-based management

WACC - Weighted Average Cost of Capital

CHAPTER ONE

INTRODUCTION

Background of the study

In today's competitive business world, value and value creation for shareholders are among the most important goals of businesses. Shareholders' value maximisation is considered one of the most important objectives of financial management. Fiordelisi and Molyneux (2006) assert that shareholders value maximisation is considered as one of the fundamental goals of all businesses. Formerly, the motive of business was to maximise profit or wealth. This resulted in unfair practices of business and exploitation of resources. With changing times, it is realised that the main motive for business should be social welfare or creating values for the shareholders. Shareholders are more concerned with the ultimate wealth created for them by their enterprise during a specific period. In recent past, there has been considerable managerial interest in shareholders' value and its management. An important reason for the increased interest is the shift in focus from accounting profit to economic profit as institutional investors are interested in corporate managements creating value for their shareholders. Copeland, Koller and Murrin (2000) suggest that institutional investors have begun exerting influence on corporate managements to create value for shareholders.

Creating value for the shareholder is now widely accepted as a dominant corporate objective. Managing to create sustainable shareholder value is

currently recognised by academics and practitioners as a major objective in banking. The shareholder value concept has, according to many received the right degree of attention in the business press, but some find that this is not the case as regards the governing of companies. Brealey and Myers (2000) stated that shareholder value maximisation has also been recognised as a reasonable goal by stakeholders.

One might ask why since the 1990s there is such a strong interest toward shareholder value among practitioners, academics and, even, regulators. The primary reason for this increasing interest of banks toward the creation of shareholder value is that the banking sector has become more competitive, this new environment requires a new approach to keep both shareholders and other stakeholders satisfied. Fiordelisi and Molyneux (2006) assert that there is a large literature that supports the shareholder value approach but there is often confusion as to how to create value for shareholders and, especially, how shareholder value should be measured.

Indeed, the concept of shareholder value is one of the oldest ideas in business. A company creates value for the shareholders over a given time period when the return on invested capital is greater than its opportunity cost, or the rate that investors could earn by investing in other securities with the same risk. As a consequence, the shareholder value (added) created over a given period is obtained by multiplying the abnormal return, i.e. Shareholder Total Return minus the expected rate of return over the period for the capital invested by shareholders. This is expressed by the Market Value of the company's Equity capital (MVE) at the time of investment. Fiordelisi and Molyneux (2006) noted that in order to highlight that this concept of "value"

implies a comparison of the shareholder return with the opportunity cost, the word “added” is often used jointly with the term “value”, for example, market value added or economic value added.

A company creates value for shareholders when the return on invested capital is greater than its opportunity cost, or the rate that investors could earn by investing in other securities with the same risk (Stewart, 2001). This leads to wealth maximisation for the shareholder. Maximizing shareholder’s wealth has become the new corporate paradigm. This is reflected in the market price of the shares held by them. Therefore wealth maximization means creation of maximum value for company’s shareholders, which means maximizing the market price of the shares. Shareholders value maximisation is at the heart of economic output and prosperity through productivity gains, employment growth and higher wages. Management’s most important mission is dependent on management’s performance. In order to measure the performance of company’s management, accountant, finance managers, investors, analysis and other users use several tools.

Fiordelisi and Molyneux (2006) state that, changes have been made in the performance and measurement criteria of corporate entities. Traditional accounting performance measures appeared in the early 1930s and have been used since then, in various forms, to measure the financial performance of corporations. Fisher (1930) and Hirschleifer (1958) introduced the discounted cash flow techniques, such as net present value (NPV) and the internal rate of return (IRR). Gordon (1962) incorporated growth and the cost of capital in valuation models. In order to determine the cost of capital, Sharpe (1964), Lintner (1965), Mossin (1966) and Black (1972) developed the capital asset

pricing model (CAPM). Solomons (1965) introduced the divisional performance and the adaptation of residual income (RI), while Tobin (1969) suggested the Tobin's Q as the proper valuation method, and Stern (1974) worked on free cash flows (FCF). In the 1980s, Rappaport and Stewart developed a new concept known as the shareholder value (SHV) approach..

To overcome problems associated with earnings-based measures, several scholars have proposed alternative theories and new (modern) performance measures. As a consequence, the shareholder value approach was developed in the late 1980s and early 1990s. Shareholder value approach estimates the economic value of an investment by discounting forecasted cash flows by the cost of capital (Rappaport, 1998). Proponents of shareholder value approach, either academics or consulting firms, based their analysis on free cash flows (FCF) and the cost of capital and developed a variety of such measures. The most common referred variants of those measures are:

1. Shareholder value added (SVA) by Rappaport (Rappaport, 1998).
2. Cash Flow Return on Investment (CFROI) by Boston Consulting Group (BCG) and HOLT Value Associates (Barker, 2001).
3. Cash Value Added (CVA) by Boston Consulting Group (BCG) and the Swedes Ottoson and Weissenrieder (Barker, 2001).
4. Economic Value Added (EVA) by Stern Stewart & Co. (Stewart, 2001).

Among the modern tools, Economic Value Added has received attention and recognition in accounting and finance as a vital tool to measure corporate performance. Fiordelisi and Molyneux (2006) reported that several studies

have proved the superiority of EVA as a performance measure while others provided different and opposing results.

Economic Value Added is the financial performance measure that comes closer than any other to capturing the true economic profit of an enterprise. Thus, in modern economics and finance area, EVA holds an important part that has less debate among practitioners (Stewart, 2001). It is the performance measure most directly linked to the creation of shareholders wealth over time. Shareholders are very much choosy for their interest into the business and they like management to come up with very specific solution. By the time, it is established that the very logic of using EVA is to maximize the value for the shareholders.

More explicitly, EVA measure gives importance on how much economic value is added for the shareholders by the management for which they have been entrusted with running the company. EVA is exceptional from other traditional tools in the sense that all other tools mostly depend on accounting information. However, accounting information often produces historical data or distorted data that may have no relation with the real status of the company. But, EVA goes for adjustments to accounting data to make it economically viable (Stewart, 2001).

EVA concept is a correct criterion in performance management, because it includes all the cost of capital employed. Dalborg (1999) stated that shareholders' value creation can be achieved through excellence in operations, practicing right financial structure, being focused, and credible earning growth. A banking firm will earn economic profit if the bank total earning exceeds its opportunity cost of equity employed. The use of economic profit

metrics instead of traditional accounting application ensure that management consider banking business lines cost of equity in their decision making-process and allocate equity capital profitably and in direction of shareholders' interest as whilst their managerial incentive are also monitored based on shareholders wealth maximisation (Kimball, 1998).

EVA is an excess profit of a firm after charging cost of capital. EVA essentially seeks to measure company's actual rate of return as against the required rate of return. In simple terms, EVA (standard) is the difference between Net Operating Profit after Tax (NOPAT) and the capital charge for both debt and equity - Weighted Average Cost of Capital (WACC) as in equation 1.

$$EVA_{std} = NOPAT - (WACC \times Invested\ Capital) \quad (1)$$

However, in the banking sector capital charge is on equity capital hence cost equity capital (k_e) is used instead of the WACC. Therefore EVA for banking is given as:

$$EVA_{bkg} = NOPAT - (k_e \times Invested\ Capital) \quad (2)$$

According to Stewart (2001), in recent years, it is believed that measuring shareholders wealth on the basis of Economic Value Added concept is more meaningful than traditional concept. Economic Value Added being the modern parameter for measuring shareholders wealth is termed better than traditional parameters of shareholders wealth creation, such as Earnings Per Share and Share Price in stock exchange/ market. Moreover, accounting earnings are under attack. These earnings fail to measure the real change in economic value. Arguments such as the alternative accounting methods could be used, the investment requirements exclusion of the

calculation of profits and the ignorance of the time value for money, brought earnings under hard criticism.

However, due to the important role banks play in the economy evaluating their economic value performance is important to depositors, potential investors, managers, regulators and of course, shareholders.

Statement of the Problem

The liberalisation of the financial sector in Ghana has created an unprecedented and vibrant competition in the banking industry. The industry, over the last two decades has seen a tremendous increase in both local and foreign banks. This has led to an increased attraction in the number of individual and institutional investors in both listed and non-listed banks in the country. These institutional investors have begun exerting influence on corporate managements to create value for shareholders. Fiordelisi and Molyneux (2006) explain that ability of banking firms to create and maximise shareholders value has become a great concern as institutional investors and other cooperate bodies have begun exerting influence on corporate management to create value for shareholders

Kaplan and Norton (2004) state that value creation is increasingly being recognised as a better management goal than strict financial measures of performance, many of which tend to place cost-cutting that produces short-term results ahead of investments that enhance long-term competitiveness and growth. These financial measures are limited in providing the investor the true economic picture of their investments (Stewart, 2001).

On the contrary, majority of shareholder value measurement in Ghana is based on accounting ratios, which denied shareholders the true economic value of their investment. Taub (2003) observes that most tools in industries only concentrate on financial information or accounting information. However EVA is a combination of market, accounting and economic information giving it a much wider net. By focusing on financial results in economic terms but not accounting terms, Chen and Dodd (2001) conclude that it provides a significant information value beyond the traditional accounting measures of EPS, ROA and ROE.

Stewart (2001) indicates that calculating economic profit as oppose to accounting profit provides a better understanding as to whether assets are managed well enough to make profit and increase shareholder value as cost of capital employed sets EVA method apart from other popular measures of bank performance.

However, despite the extended amount of literature on EVA implementation on companies, there is a lack of banking EVA applications on value to the shareholder. Hence, this thesis seeks to analyse shareholders' economic value added in the banking industry in Ghana with particular reference to selected listed banks (2006-2010).

Objectives of the study

The general objective of the study is to analyse shareholder economic value added of selected listed banks in Ghana (2006-2010).

The specific objectives are to:

1. examine estimated EVA and accounting ratios (ROA, ROE and EPS) of selected listed banks in Ghana.
2. identify the correlation between Share Price (SP) and EVA, accounting ratios (ROA, ROE and EPS) of selected listed Banks in Ghana.
3. identify the correlation between market value added (MVA) and EVA, accounting ratios (ROA, ROE and EPS) of selected listed Banks in Ghana.
4. analyse the relationship between SP and EVA, accounting ratios (ROA, ROE and EPS) of selected listed Banks in Ghana.
5. analyse the relationship between MVAs and EVA, accounting ratios (ROA, ROE and EPS) of selected listed Banks in Ghana.

Hypothesis of the study

1. Ho: there is positive correlation between SP and performance ratios EVA, ROA, ROE and EPS of selected listed Banks in Ghana.
2. Ho: there is positive correlation between MVA and performance ratios EVA, ROA, ROE and EPS of selected listed Banks in Ghana.
3. Ho: there is significant difference in significance level of relationship between MVA and performance ratios EVA, ROA, ROE and EPS of selected listed Banks in Ghana.
4. Ho: there is significant difference in significance level of relationship between SP and performance ratios EVA, ROA, ROE and EPS of selected listed Banks in Ghana.

Significance of the Study

Maximizing the shareholder value is considered as one of the fundamental goals of all businesses (Brealey & Myers, 2000). Shareholder value creation is seen as vital in any organization. The ability of banking firms to create and maximise shareholders value has become a great concern as institutional investors and other cooperate bodies have begun exerting influence on corporate managements to create value for shareholders.

Hence the findings from this research work will serve as a policy tool for management in strategy formulation and a financial performance management in the banking industry. It will also serve as a guide to stakeholders of the true economic value added of a particular bank. Furthermore, it will add to the knowledge of the EVA method of valuing shareholder value and basis for further studies in the area of Economic Value Added in other sectors of the economy.

Scope of the Study

Creating and measuring shareholder value can be studied from different perspectives but to remain focused, the study limits its scope to investigate how listed banks create economics values for their shareholders as they competitively utilized their fund and whether this internal value creation has any association with the stock market value for a period of 5 years starting from 2006 to 2010.

The research is mostly based on the information collected from the annual reports of the companies; the limitations of the data are apprehended to be the limitations of the study. It is also believed that such limitations, if any,

will not affect the validity and reliability of the study to a great extent. The research is studied from the stock market perspective using listed Banks on the stock exchange.

Limitations of the Study

The study is limited to eight out of nine banks listed on the stock market. Also, the study covers five-year period from 2006 to 2010. Hence the outcome cannot be generalized for all banks in Ghana.

Organisation of the Study

The study is organised into five chapters. The first chapter deals with the introduction of the thesis. Chapter two looks at the review of related literature to the topic under study. Chapter three gives detailed methodology of the study. Chapter four gives the interpretation of the data collected and also includes discussion of the result from the data analysis.

Chapter five winds up the study, drawing conclusion, suggestions and policy implications based on the findings of the study

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

This chapter is aimed at reviewing available literature on the banking management, economic value-added, shareholder value creation and value-based management in general to serve as a guide in the analysis so as to enable the researcher form an opinion. The review also considers various theories or generalisations to explain the dynamics in the shareholder value creation and banking performance.

Overview of Banking in Ghana

Amidu (2007) identifies the delivery of primary banking services of lending and borrowing of money in Accra by the then British Bank of West Africa but now Standard Chartered Bank (Ghana) limited in 1896 ushered in banking activities in Ghana. In 1917, Barclays Bank Ghana Limited was set up to carry on the business of banking in Ghana. However, the industry was all this while swaddled in foreign hands because Ghana, which was then called Gold Coast, was bogged down in the quagmire of colonialism. The banking industry in Ghana witnessed some interventional policies aimed at controlling the cost and direction of finance in order to facilitate economic development

soon after Ghana had attained political independence. Notable among these policies were the establishment of public sector banks; the imposition of administrative controls on interest rates; and sector allocation of bank credits.

The financial crisis which plagued Ghana from 1983 to 1988 moved the Bank of Ghana (Central Bank) to embark on the Financial Sector Structural Adjustment Program (FINSAP) to address it. Notable among the major objectives of FINSAP were the restructuring of the financial sector and the creation of new institutions including Ghana Stock Exchange (GSE) to revitalize the financial sector. The program has revived the sector by improving customer service and management procedures. Since 1988 key developments have taken place in the banking industry. These include the promulgation of the following acts: Banking Act 2004 (Act 673) which replaced the Banking Law 1989 (PNDCL 225); Foreign Exchange Act 2006 (Act 723); Credit Reporting Act 2007 (Act 726); Banking (Amendment) Act 2007 (Act 738); Borrowers and Lenders Act 2008 (Act 773); Home Mortgage Finance Act 2008 (Act 770) and Anti-money laundering Act 2008 (Act 749).

Additionally, the Bank of Ghana has lifted restrictions on the scope of operations of commercial banks. Thus, commercial banks in Ghana are now universal banks with new minimum capital requirement of GH¢60 million for all foreign banks (banks with foreign majority ownership) and GH¢25 million for local/indigenous banks (banks with local majority ownership). The bank has since 2006 abolished the secondary deposits reserves requirement of 15 percent. Notwithstanding the indefatigable efforts of Bank of Ghana to sanitize the banking sector for economic growth, in 2000 the sector saw the demise of three major banks: Bank for Housing and Construction; Ghana Co-

operative Bank; and Bank for Credit and Commerce. The extinction of these banks brought to the fore the need for pragmatic approaches in capital adequacy, including holding a capital buffer of sufficient size, enough liquid assets, and engaging in efficient risk management (Amidu, 2007).

Over the years, the performance of the industry has been impressive. Its total operating assets grew by approximately 82 percent from about GH¢6.85 million in 2007 to approximately GH¢12.42 million in 2009 and went up 25 percent to approximately GH¢16.8million in 2010. Its gross loan grew from GH¢5.7 billion in 2008 to GH¢6.3 billion in 2009. In the midst of the global financial crisis, the industry became very cautious on growing its loan book. Gross loans and advances increased from GH¢6.3 billion in 2009 to GH¢7.3 billion at year end 2010.

The return on equity (ROE) of the industry declined from 22 percent in 2008 to 12.1 percent in 2009 but however went up 1.7 percent in 2010. The gain in ROE is attributable to an improvement in the industry's net interest margin. Shareholder's funds grew by 30 percent from GHC 1,794 million in 2009 to GHC2, 332 million in 2010. The growth is mainly due to the capital injection by local banks to meet the minimum capital and earnings retained to meet statutory reserve requirements. The capital injection in the last two years made available cheaper funds to finance banks' operating assets and boost the earning capacity. As at 2010, Ghana boasted of twenty-six (26) universal banks with fourteen (14) foreign banks and twelfth (12) local banks (Banking Survey, 2010).

Economics of Banking

The neoclassical theory of firms focuses on the analysis of competition and the market structure based on the number and size distribution of sellers in the market. Modern empirical studies are based on the Structure-Conduct-Performance (SCP) paradigm. The SCP paradigm tries to explain the relationship between conduct and performance of the firms and the industrial structure characteristics in which they operate. According to this paradigm the structure of the industry focuses on the firm's size, the concentration, entry and exit level characteristics, products differentiation, vertical integration, etc. The conduct of the industry also consider the policy, objectives, marketing strategies, pricing methods and policies and research and development needed for innovation and growth. On the basis of the performance of the firms, the SCP considers the critical analysis of the profitability, product quality, efficiency and technical progress of the firms within its industry. However the paradigm considers the market structure as imperfect competitive structure and therefore needs for regulation to check any abuse of power by individual or group of firms. Molyneux, Thornton and Lloyd-Williams (1996), worked on SCP and expressed that bank concentration impairs competition which then result in higher loan rates, lower deposit rates and greater profitability.

In applying SCP paradigm to the banking industry, Molyneux et al (1996) explained that SCP relationship is use to assess the main policy issue on the type of banking structure, the best service to the public when cost and banking services is considered. He advanced that efficiency system and minimising the possibility of failure in the banking firm are the two major objectives. Collusion hypothesis explains that if smaller number of banks

dominate in a banking sector, then for the purpose of cost efficiency and higher profit they should collude (explicitly or implicitly) than if the number of banks is large. By collusion they can then charge higher rate on loans, charge higher fees (non-interest) and pay less interest on deposit.

Berger and Hannah (1998) also concluded in their findings and suggested that the alternative way of researching into the collusion hypothesis is to concentrate on the level function between concentration and price. The findings explain that there is a negative relationship between market concentration and deposit interest rate. This provides an evidence that banks in a concentrated market exert market power by giving depositors lower interest rate.

Upon research on both United States and United Kingdom banking firms using SCP paradigm (Molyneux et al, 1996) concluded that there is some relationship between market concentration and profitability. Also test on whether firm profitability depends on the ownership type, concentration level, growth in asset and capital scarcity using 60 banks in Canada, Western Europe and Japan and came out with a conclusions that there is a positive relationship between concentration and profit. It explains that banking firms can make higher profit through the use of market power or collusion. The test also suggests that scarcity of capital leads banks to have the opportunity to grant higher interest rate loans to customers. Contrary the growth of the banking firm and has negative effect of on its profitability whiles private own banks tends to be more profitable and the state-own-banks.

The Ghana Stock Exchange (GSE)

The Ghana Stock Exchange was established in July 1989 as a company limited by guarantee under the Companies code 1963. In October 1990, the Exchange was given recognition as an authorized Stock Exchange under the Stock Exchange Act of 1971 (Act 384). Trading commenced on the floor on 12th November 1990. The status of the Company changed from private to public company limited by guarantee in April 1994. The GSE is governed by a Council of representatives from licensed dealers, listed companies, banks, insurance companies, the money market and the general public. The exchange has been trading daily since mid 2008. Prior to that, there were three (3) dealing dates every week. Trading activities are no longer done on the trading floor. A central securities depository has been established, securities have been dematerialized and trades are now done and settled electronically from Brokers offices. Dealers and the Investing public are required to register their shares online to be able to trade. The listing requirements include capital adequacy, profitability, efficiency of management, and float of shares and years of operational existence.

The GSE performance is measured by GSE All-Share-Index, which is a market value weighted index. The GSE currently has 35 listed companies, one depository share and one preference share trading on the exchange actively.

The listed shares are categorized into Manufacturing, Financial, mining and Gas & Oil sub-sectors. The Bank of Ghana and Securities Exchange Commission are the regulators. The Ghana Stock Exchange achieved recognition in the global investment arena. In 2003 it achieved performance of

154.67% and was recognized as the best performing market in 2004. The remarkable performance was attributed to economic performance resulting from stable and good macroeconomic factors during the period leading to investor interest on the exchange. In 2008, Ghana Stock Exchange was adjudged one of the best during the period of financial meltdown of advanced markets. The remarkable performance was attributable to economic performance resulting from stable and strong macroeconomic factors.

The feat of 2008 was to be followed by over 46% negative performance in 2009, the lowest in Africa. This poor performance was also attributed to poor macroeconomic factors; a critical look at the performance figures suggests some lag of the effect of macroeconomic factors on market performance. The good performance of the economy in 2005 to 2006/7 impacted the market in 2008. The poor performances in 2007 and 2008 impacted the market in 2009. It is difficult to depend on past price movement to make gains but the same cannot be said about the release of information. Some Companies announce good returns and prospects but nothing happens to their prices.

The Concept of Shareholder Value

The value delivered to shareholders because of management's ability to grow earnings, dividends and share price. This is the value that a shareholder is able to obtain from his/her investment in a company. It is made up of capital gains, dividend payments, proceeds from buyback programs and any other payouts that a firm might make to a shareholder Rapport(1998).

In other words, shareholder value is the sum of all strategic decisions that affect the firm's ability to efficiently increase the amount of free cash flow over time. Shareholder value refers to the value of a publicly traded company, minus its debts, with corporate value being the sum its future cash flows, discounted at its weighted-average cost of capital (WACC). The free cash flows represent the present value of the operating cash flows (the net of inflows and outflows) during the forecast period.

The value of a firm is often calculated as the Net Present Value of all future cash flows, plus the value of all non-operating assets owned by the company. Non-operating assets may include things such as excess real estate, stocks, and overfunded pension plans. The shareholder value of a company can also be seen as anything that would be left over of the company if all creditors are fully paid off. Things such as dividends increase shareholder value, while the issuing of additional shares of stock dilutes it Rapport (1998).

$$SV = \text{Corporate Value (firm value)} - \text{Debt} \quad (3)$$

$$= (\text{NPV of future free cash flows} + \text{value of non operating assets}) - (\text{Debt}).$$

(4)

The phrase “shareholder value” originated as a business buzzword in the 1980s, and is often associated with businessman Jack Welch, who formerly served as the Chief Executive Officer (CEO) of General Electric. Apart from the mathematical definition, shareholder value can refer to other ideas as well. It is sometimes used to refer to the concept that the chief aim of a public company is to provide financial value to its shareholders, which are its literal owners. More specifically, it can also mean that a shareholder’s money -- that which they used to purchase stock -- should give him a higher

return than he could achieve as an individual, investing in other assets of similar risk (Rapport 1998).

Kaplan and Norton (2004) stated that, value creation is the primary aim of any business entity. Creating value for customers helps sell products and services, while creating value for shareholders, in the form of increases in stock price, insures the future availability of investment capital to fund operations. From a financial perspective, value is said to be created when a business earns revenue (or a return on capital) that exceeds expenses (or the cost of capital). But some analysts insist on a broader definition of "value creation" that can be considered separate from traditional financial measures. Traditional methods of assessing organizational performance are no longer adequate in today's economy. Stock price is less and less determined by earnings or asset base. Value creation in today's companies is increasingly represented in the intangible drivers like innovation, people, ideas, and brand. When broadly defined, value creation is increasingly being recognized as a better management goal than strict financial measures of performance, many of which tend to place cost-cutting that produces short-term results ahead of investments that enhance long-term competitiveness and growth. As a result, some experts recommend making value creation the first priority for all employees and all company decisions.

The first step in achieving an organization-wide focus on value creation is the understanding of the sources and drivers of value creation within the industry, company, and marketplace. Understanding what creates value will help managers focus capital and talent on the most profitable opportunities for growth. If customers value consistent quality and timely

delivery, then the skills, systems, and processes that produce and deliver quality products and services are highly valuable to the organization (Kaplan & Norton, 2004). Consistent alignment of actions and capabilities with the customer value proposition is the core of strategy execution.

Although the intangible factors that drive value creation differ by industry, some of the major categories of intangible assets include technology, innovation, intellectual property, alliances, management capabilities, employee relations, customer relations, community relations, and brand value. According to Kaplan and Norton (2004), the link between these intangible assets and value creation is corporate strategy. It is important to note that investments made to enhance intangible assets (research and development, employee training, and brand building, for example) usually provide indirect rather than direct benefits. In this way, focusing on value creation forces an organization to adopt a long-term perspective and align all of its resources toward future goals.

Brealey and Myers (2000) stated that value is created in the real market by earning a return on the investment greater than the opportunity cost of capital. Thus the more you invest at a return above the cost of capital the more value you create. This implies that growth creates more value as long as the return on the capital exceeds the cost of capital. They go on to mention that one should select the strategies that maximize the present value of expected cash flows or economic profits. The returns that shareholders earn depend primarily on changes in the expectations more than actual performance of the company.

Dalborg (1999) pointed out that value is created when the returns to shareholder, in dividend and share-price increases, exceed the risk adjusted rate of return required in the stock market (the cost of equity). He said that the total shareholder return must be higher than the cost of equity to truly create value. In a competitive environment, shareholders value is created when a company invests in projects that earn a return in excess of the cost of capital.

Facts about Shareholder Value Creation

Shareholder value creation is seen as vital in many organizations. Before stating describing different ways to create shareholder value, it is important to first capture the following ideas about shareholder value creation. Knight (1997) said that higher profitability does not guarantee value creation for shareholders in a company. That is because creating value for shareholder operates under three rules, which are the slippery slope of value creation: the first rule is that the level of profitability has nothing to do with value creation. When it comes to creating value for shareholders, companies that are very profitable have no advantage over companies that are less profitable. Second rule, all management teams start on a level playing field for creating value. Last rule is that different companies face different challenges in creating value. Companies are handicapped based on the results to date. Clarke (2000) added that what it is important is that a company adhering to shareholder value principles concentrates on cash flow rather than profits.

Martin and Petty (2000), state that value creation involves much more than merely monitoring firm performance. Value is created where managers are actively engaged in the process of identifying good investment

opportunities and taking steps to capture their value potential. Value creation requires management to be effective at identifying, nurturing and harvesting investment opportunities. In addition to this a capital–market focused measurement and reward system that ties employee-level performance to owners rewards will promote the establishment of a continued cycle of value creation that benefits everyone.

To be able to develop an effective strategy for increasing shareholder value, there is a need to first, understand the factors that determine shareholder Value, then assess by what means managers may create an environment where increased shareholder value is made possible (Martin & Petty, 2000). Concerning creating shareholder value in the future, it is becoming increasingly more difficult to create value in the future since investors will realize no matter how good is getting in creating value and they will price the stock accordingly. By increasing the stock price, investors are giving managers credits for performance to date, but they are also increasing the degree of difficulty in creating future value. “What have you done for me lately?” is what the shareholders are asking. Even though operating returns may have improved but investors gave credit for that by increasing the value of the company and yet they still want to know what is going to be done to create more value in the future.

Companies face challenges in creating shareholder value such as increased complexity, greater uncertainty and risk, time compression, and conflicting priorities. Managers are being required to make the complex simple, to reduce uncertainty and risk, to speed decisions making and to balance conflicting priorities. Companies have been trying to face these

considerable challenges through different ways such as capturing the business strategy in performance measures, paying management for value creating performance and focusing managers on the business strategy (Knight, 1998).

Value Drivers

Value drivers are the operating factors with the greatest influence on the operating and financial results and which incorporate the entire decision-making dynamic. Value drivers help make the strategy real at all level of specificity that is meaningful and actionable. They include aspect of the operating decisions and are used to understand non-financial operating measures. Value drivers occur in all parts of the company. Copeland, Koller and Murrin (2000) observed that identifying value drivers is the first step to figuring out the practical effects of economic or other environmental domains on an industry's performance. Finding key value drivers that add value to the industry is a challenging and creative process that relies on trial and error.

Value drivers are of two types: external and internal. External value drivers correspond to the remote, task, and industry environments and, while being out of firms/industry control, they affect the firm's value. Internal value drivers on the other hand reside within the firm and thus the firm can have some degree of control over them. Rappaport (1998) observed that value drivers help make the strategy real at all level of specificity that is meaningful and actionable. Value drivers include aspects of the operating decisions and are used to understand non-financial operating measures. Value drivers occur in all parts of the company and are in fact at the root of value creation. Value audit permits managers to monitor the overall value creation and value

drivers' analysis is a very critical step in searching for strategic initiatives with highest value- creation leverage. Shareholder value analysis helps management to determine the areas of business which need to be managed most; otherwise it is not easy to set priority since many factors can influence the value of a business.

However, Martin and Petty (2000) recognized that if one wants to manage for shareholder value, the first and foremost thing is to identify just what drives shareholder value in the capital market. A key issue that frequently arises in this regard involves whether share value reflects a firm's quarterly earnings or encompasses the future cash flow generating potential for the firm. Concerning free cash flows as an area of interest in the shareholder value approach is the sensitivity of free cash flows to the value drivers. This sensitivity analysis may help to rank the value drivers according to their degree of influence on cash flows of a firm. The understanding of such sensitivity greatly assists the management in credit analysis, cost restructuring, profit planning and other operating activities. A limited number of researches have been done to investigate the sensitivity of value drivers. Some of the sensitivity analysis took no growth, growth and inflation situations of a firm.

Value drivers of a firm are generic in a sense that they can further be decomposed into smaller components. For instance, sales growth may be obtained by increasing sales price, diversifying the sales mix, increasing the sales volume (by increasing production) and etc. In addition, profit margin is easily adjustable by changing the cost structure of the firm; for instance, the reduction in labour cost may reduce the total direct cost of sales; and, hence, increase the magnitude of profit margin. Such decomposition will assist

managers to identify the most critical factors, among the sub elements of the value drivers, in the process of maximizing shareholder value (Copeland, Koller & Murrin, 2000). Thus, the sensitivity study of such sub elements further enhances the importance of the analysis of value drivers from the grass root level.

Researchers vary as to the number of these value drivers; for instance, five (Ruhl & Cowen), six (Moskowitz), seven (Rappaport), eight (Turner) and Dalborg identified three fundamental drivers of value creation. These are profitability, growth, and free cash flow. According to him, normally the value of a company is determined by its current profitability, expectation for profit growth and he added also that free cash flow could be considered to be a determinant of value in certain situations (Copeland et al., 2000).

Turner (1998) identified eight value drivers. These are: sales growth rate, operating profit margin, income tax rate, incremental investment in working capital, incremental investment in fixed capital, replacement of fixed capital, cost of financing (cost of capital) and forecast duration (the planning period). The sales growth rate, the rate of profit margin and the cash tax rate are used to determine the net cash inflow of a firm. Fixed and working capital increments added with replacement of fixed cost of investment form the total cost of investment. The difference between the net cash inflows and cost of investment gives the free cash flow of a company. A defined planning period and an appropriate discount rate are also required to compute the net benefit. By adding the market value of temporary investments, the value of the firm will be obtained.

Creating Shareholder Value – The Strategy

Different ways are identified in which companies create shareholder value. Dalborg (1999) identified general four cornerstones in creating value for shareholders. Those are excellence in operations, getting the financial structure right, being focused, and credible earning growth. He believed that being successful in creating shareholder value; the company needs to be well positioned in all the four areas.

Superiority in Operations

Dalborg (1999) states that excellence in operations means running the current business to produce maximum sustainable profitable growth from the current assets base. Operating efficiency presents a great importance for value creation since it contributes to the overall profitability and also when growth initiatives are being considered operating efficiency is also a prerequisite.

He explained that one key to achieving excellence in operations is to decide an outlay that promotes current and future revenue-generation capabilities while simultaneously enhancing cost efficiency, which is a difficult balancing act. This is because cost-cutting is never ending since new technologies oblige improvement continuously. Thus, the culture of change must be introduced as a norm rather than an exception. Excellence in operation is closely related to profitability since with that profitability is maximized within the scope of a given product area and geographical markets (Dalborg, 1999).

Right Financial Structure

Dalborg (1999) based the discussion of getting the financial structure right on the cost of equity; it is seen as important because it is used as a discount factor in the calculation of value. A company's cost of equity is equal to the expected rate of return that investors require to purchase the company's stock. Although the cost of equity is not discernible from the market data, the information is needed to manage risk capital in the interest of shareholders. Under the assumption that markets are efficient, a company that aims at maximizing shareholder value should pursue investments that are in line with company's strategy and have a risk adjusted rate of return that exceeds the cost of equity. Thus to make right investment decisions the company need to know its cost of equity, it is also important to know that the cost of equity varies with a company's risk level and debt structure.

The risk level of a company needs to be carefully chosen since it is an important determinant of the cost of equity. Managing the level of risk capital is also important because companies get into problems when equity is too low. The solvency ratio must be kept appropriately high in relation to the risk in operations and expansion plans for the near future, and not higher than that (Dalborg, 1999).

According to Dalborg (1999) a company should keep the structure of equity as simple as possible in order to provide maximum value for shareholders. The structure of equity capital should not be an obstacle to a take-over in a company that maximizes value; instead a high share price should provide such an obstacle. He also added that getting the financial structure right is closely related to free cash flow since it deals with issues of

capital, risk, and dividends, the important point being to manage the company's capital in the interest of shareholders.

Being Focused

Dalborg (1999) states that focus has become one of the building blocks in valuing the shares since investors are becoming increasingly aware that all customers need for different products cannot be met by one company. In order to maximize value, companies need to be focused. Therefore, they need to have clear strategy on where to concentrate efforts. This must be effectively communicated to the companies' staffs and then adequate mechanisms for follow up can be subsequently achieved. Companies can enter areas where they have competitive advantage and downsize, divest, or close operations that do not have the potential to create value, this has to start at the group strategic level and it must be understood and accepted by the successive layers of the hierarchy. Being focused is linked most closely to the profitability since to better manage a company one needs to focus on its areas of profitability otherwise profits would deteriorate.

Grow the Earnings

Growth adds new assets that provide for future profits; therefore a company's growth prospectus is very important in creating shareholder value. Innovations that provide new rather than improved products are one of the explanations why companies achieve spectacular results in creating shareholder value. The market rewards investments for growth when expansion plans look as if they will create value. Except for some exceptions,

generally business with higher P/E ratios will expand faster than other businesses and companies that aim at value creation should direct their resources towards growth areas. Growth can be achieved through merger and acquisition and also it can be an organic growth meaning that it is the growth generated by the company itself. Credible earning growth matches the fundamental driver growth since the growth prospect has to involve sustainable profitable growth not just growth per se (Dalborg, 1999).

According to Doorley and Donovan (1999), if a company does aspire to a high level of achievement, it must grow and companies with a near-fanatical focus on the growth outperform all others. Companies with high growth rates are mostly likely to have high returns to shareholders and companies with low growth rates are likely to realize low returns. However, he said that not every business could generate value by growing all the times. He also indicated that there can be value destroying growth. Therefore, before committing to developing a specific business, it is important for the company to determine whether or not its returns exceed the cost of capital.

Rappaport (1998) discussed that Shareholder value creation in external growth such as merger and acquisition depends not on the pre-merger market valuation of the target company but on the actual acquisition price the acquiring company pays compared with the selling company's cash- flow contribution to the combined company.

Quality Information

The way companies present the information or the degree of disclosure of information can also create the value. It is important to tell investors about

the strategies being followed and what is actually being done in the company. Directors must ensure that all interested parties are fully informed of any material matter affecting the company's business, with openness and substance over form being their guideline". By "Any material matter" the author means one, which affects shareholders' expectations, and the market prices that are based on those expectations. Failure to properly inform shareholders can be severe since investor confidence is difficult to regain (Dalborg, 1999).

Clarke (2000) added that giving out information will benefit individual shareholders as well as the company. He then suggested that management should report both why their strategies are expected to lead to the creation of value over the long term and their own view over actual performance. It will also facilitate the stock Exchange in allocating scarce capital resources. Knight (1997) states that information controls value since value is based on expectations of the future and what investors expect to happen to the company's cash flow is the largest determinant of value. He went on to mention that information is the most single factor in determining value and that information about the past is objective while information about the future is subjective.

Stock Repurchases

Rappaport (1998) pointed out that one of the guiding principles of shareholder value management is to return cash to the shareholders and when the value creating investments are not available, share repurchase becomes a considerable supplement to the dividend in returning cash to shareholders.

Companies may repurchase their shares as a signal to the market that their stock is being undervalued since average stock prices respond positively to the announcement of share repurchases and premium tender-offer share repurchase are most appropriate for reducing significant market undervaluation. Furthermore when the market undervalues company's shares, a share repurchase transfers wealth from the exiting shareholder to continuing shareholders. Then, in this case management objectives to maximize long-term value for continuing shareholders are put in action. The continuing shareholders will thus get a return, which is greater than the required rate of return if the existing shareholders sell at that undervalued price.

The companies may carry out stock repurchase since it is a more tax efficient means for distributing cash to shareholders. In most cases, taxes are lower on capital gains than on ordinary income. However this tax efficiency idea does not apply to some institutional investors such as pension funds with no tax status. Companies also use stock repurchase since it enables them to increase leverage and move towards a more desirable capital structure. Here, the management must first make sure that this would be the least costly way of creating value.

Value-Based Management

Value-based management is a management control system that measures, encourages and supports the creation of net worth (Copeland et al., 2000). In the mainstream management accounting viewpoint the concept of control systems results from the behavioural shortcomings mentioned in the agency theory. In the perspective of a firm regarded as a set of contracts

among factors of production with each factor motivated by its self-interest, a separation of the control of the firm on the one hand and the ownership of the firm, on the other hand, is an efficient form of economic organization.

The focus is on the agency relationship between the agent, who has certain obligations to fulfil for the principal because of their economic relationship (Brealey & Myers, 2000). The selection of appropriate governance mechanisms between the agent and the principal is, given the assumption that agents are motivated by their self-interest, necessary to ensure an efficient alignment in their interests. This alignment in interests can be disturbed by two main problems: the agency problem and the problem of risk sharing. The agency problem rests on the assumption that the desires and goals of the agents and principals can conflict; and that it is difficult or expensive for the principal to monitor what the agent is doing (Brealey & Myers, 2000). Both problems are the corollary of a lack of goal congruence between the objectives of the agents and those of the principals of the organization.

The central purpose of management control systems is to lead people to take actions in accordance with their perceived self-interest that are also in the best interest of the organization. Value-based management systems are conceived to reduce this lack of goal congruence. Moreover, Anthony and Govindarajan (2001) suggest the various proponents of VBM systems think they have a very good answer to both problems outlined in the agency theory by trying to make managers think and behave more like owners.

Value-based Performance Measurement

Performance measurement is the method of assessing a company's progress towards achieving its preset goals. Through key performance measures, an organisation's strategy is linked to its operations. Moncla & Arents-Gregory (2003) stated that the objective of performance measurement and management is to increase the shareholder value, profitability, growth, competitiveness, quality, customer satisfaction, etc. of an organisation resulting in improved performance.

According to Niven (2003), a particular category of performance measures are financial performance measures. Financial measures indicate to top-management whether their strategy execution is leading to better bottom-line results. The financial metrics are based on information obtained from balance sheets, income statements and cash flow statements. Some examples of these metrics are revenue, gross profit, operating income, net income, earnings per share, long-term debt, cash flow, debt/equity ratio, etc. By adopting a performance measurement system based on financial measures, companies can identify the key performance metrics that would result in improved financial outcomes.

As customers place an increasing demand on companies to provide "value-added" services, it is becoming vital for companies to be able to measure the value of these services in order to justify a premium price for the services and ensure continued profitability (Lambert & Burduroglu, 2000). Many organisations have adopted a new breed of performance measures that are based on shareholder value, known as value-based management. Shareholder value is the financial value created for shareholders by the

companies in which they invest. A shareholder is any holder of one or more shares in a company. The evidence of being a shareholder is in the form of a stock certificate. The shareholder value theory states that a company creates this value when it meets or exceeds a cost of capital that suitably reflects its investment risk (Lambert & Burduroglu, 2000).

According to Copeland et al, (2000), companies are choosing to employ a system of measuring shareholder value for many reasons. First, value is the best metric of performance as it is the only measure that is comprehensive and hence is useful for decision-making. By increasing shareholder value, companies can maximize the value for other stakeholders (customers, labour and government (through taxes paid) and suppliers of capital). Second, shareholders are the only stakeholders of a company who simultaneously maximize everyone's claim in seeking to maximize their own. Finally, companies that are unable to create shareholder value will find that capital flows away from them and towards their competitors who are creating shareholder value.

Value-Based Performance Metrics

In management accounting literature it is often said that one can tell whether a subject is in fashion when lots of different measures, all claiming to be the paramount performance indicator, are competing against each other. Another symptom of a so-called hype could be the fact that numerous acronyms are proposed to describe an identical framework. Both consultants and academics strive for an extensive platform and describe numerous value

based performance measures like EVA, CFROI or Q-ratio (Copeland et al., 2000).

In most cases the development of these measures is based on widespread criticism on commonly used profit-related measures like return on investment, return on assets, earnings before interest, taxes and amortization of goodwill or earnings per share. Some of the value-based measures have been developed recently; others have existed for decennia or have been derived from the capital market theory to be used for divisional controlling. Copeland et al., (2000) noted references on value-based measures in both practitioner-oriented publications and academic journals, but also noticed that more and more mainstream corporate finance and investment textbooks are covering these new performance metrics.

The value of an organization can be gauged from two different angles. Value-enhancing managers are considered to be those who create value by increasing the company's value relative to the cost of capital at their disposal. Managers whose accounting investments exceed the market value of their business are said to be destroying value. In the first viewpoint, the stock market data provide us with the information needed to calculate the value of the company unambiguously. On the other hand, many companies (and obviously all non-quoted organizations) estimate the warranted value of their common stock indirectly, using an alternative valuation model. In this way, these performance measures can very well be used to assess divisional performance and to provide information supporting decisions on corporate or divisional level (Copeland et al., 2000).

The most common methods for measuring shareholder value are:

1. Total shareholder return
2. Market value added (MVA)
3. Economic value added (EVA)
4. Cash flow return on investment.

Total shareholder Returns (TSR)

Morrin and Jarell (2001) stated that the first approach to measure shareholder value from the perspective of a quoted company is total shareholder return (TSR) that is, share price appreciation plus dividends. TSR represents the change in capital value of a company over a one-year period, plus dividends, expressed as a plus or minus percentage of the opening value. A company's stock price is the clearest measure of market expectations of its performance. The capital markets are distinctively focused on the overall rate of return of any stock, which in addition to the stream of dividend appreciation also includes capital appreciation but excludes share repurchase.

Morrin and Jarell (2001) also stated that total shareholder return is also documented as shareholder rate of return or as total business return. The latter idiom is typically used by Boston Consulting Group, although TSR is an unbiased measure of the return for the shareholder, it provides a direct link to external measurement because it must be reported under US GAAP in Security and Exchange Commission filings.

However, Morrin and Jarell (2001) observe that there are a few shortcomings in the use of TSR. First, as it can only be calculated for companies that are quoted on the stock exchange, it cannot be used to

calculate shareholder return at business unit level or for specific product market combinations. Second, some authors claim that TSR is not an efficient indicator to judge manager's performance because it is driven by many factors beyond the control of the firm's executives.

Market Value Added (MVA)

MVA is the excess market value of capital (both debt and equity) over the book value of capital. If the MVA is positive, the company has created wealth for its shareholders. According to Stewart (2001), to determine the market value, equity is taken at the market price on the date the calculation is made, and debt at book value. The total investment in the company since day one is then calculated as interest-bearing debt and equity, including retained earnings. Present market value is then compared with total investment. If the former amount is greater than the former, the company has created wealth. The difference between the equity market valuation of a company and the sum of the adjusted book value of debt and equity invested in the company is called market value added (MVA).

$$\text{MVA} = \text{market value} - \text{invested capital} \quad (5)$$

Market value added is said to be unique in its ability to gauge shareholder value creation because it captures both valuation (the degree of wealth enrichment for the shareholders) and performance i.e. the market assessment of how effectively a firm's managers have used the scarce resources under their control as well as how effectively management has positioned the company on the long term (Al Ehrbar, 1998).

Furthermore MVA avoids subjective accounting issues regarding anticipation of future cash flows and discount rates because it approximates the stock market estimation of net present value. Stewart (2001), conclude that although little research has been conducted on the predicting power of MVA it is said to be a more effective investment tool than other measures.

Cash Flow Return on Investment (CFROI)

Cash flow return on investment (CFROI) is the annual gross cash flow relative to the invested capital of the business unit. HOLT Value Associates in cooperation with Boston Consulting Group develop CFROI. The CFROI calculation requires four major inputs: the life of the assets, the amount of total assets (both depreciating and non-depreciating), the periodic cash flows assumed over the life of those assets and the release of non-depreciating assets in the final period of the life of the assets (Young & O'Byrne, 2001). From a methodological point of view CFROI can be determined in two steps. First, inflation-adjusted cash flows available to all capital owners in the firm, are compared to the inflation-adjusted gross investments made by the capital owners. The ratio of gross cash flow to gross investment is translated into an internal rate of return by recognizing the finite economic life of depreciating assets and the residual value of non-depreciating assets.

Madden, who is partner at HOLT Value Associates, cites a number of authors who claim that security analysts and corporate managers increasingly employ CFROI as a key tool for gauging corporate performance and shareholder value. Some of its users perceive CFROI also as an investor-oriented tool. The CFROI model avoids the use of accounting book capital in

valuing the firm's existing assets. Since the underlying gross cash flow for the calculation of CFROI is assumed to be constant during the useful life of the fixed assets, it is an annual performance figure that has to be recalculated yearly. An often-heard comment with regard to CFROI is that it is perceived as a complex financial measure device (Young & O'Byrne, 2001).

Based on a simplified CFROI rate, Boston Consulting Group developed a residual income measure, which is called cash value added (CVA). CVA is the spread between CFROI and the real cost of capital, multiplied with the investment in fixed assets plus working capital. Due to the fact that investors use analogous methods to value financial assets, CVA is seen as a consistent and relevant tool in communicating both internally and externally (Young & O'Byrne, 2001).

Shareholder Value Added.

According to Rappaport (1998), Shareholder value added (SVA) is defined as the difference between the present value of incremental cash flow before new investment and the present value of investment in fixed and working capital.

$$\text{SVA} = (\text{Present value of cash flow from operations during the forecast period} + \text{residual value} + \text{marketable securities}) - \text{Debt.} \quad (6)$$

The measure has been described by Rappaport, who is regarded as one of the most prominent publicists in the field of shareholder value metrics.

However, Shareholder value added can also be defined as incremental sales multiplied by incremental threshold spread, adjusted for the income tax rate, divided by the present value of the cost of capital. Incremental threshold

spread is calculated as the profit margin on incremental sales less the break-even operating profit margin on total sales in any period. In the latter way of representing, SVA leans towards the shareholder value network, which depicts the essential link between the corporate objective of creating shareholder value and the basic valuation or value drivers (Rappaport, 1998).

According to Morrin and Jarell (2001), the value driver model is a comprehensive approach that centres on seven key drivers of shareholder value i.e. sales growth rate, operating profit margin, cash tax rate, fixed capital needs, working capital needs, cost of capital and planning period or value growth duration. Compared with EVA, Mills and Print express their preference in favour of SVA because the driver tree model appears to be very useful in helping managers to understand the dynamics of value creation. In a multidivisional organization the measurement of selected value drivers at the divisional level could be complementary to value-based measures at group level and eradicate the need to calculate divisional cost of capital (Rappaport 1998).

Economic value added: The origin of EVA

Fiordelisi and Molyneux (2006) suggest that the origin of EVA can be traced to Hamilton (1777) and Marshall (1890) who explained that for firms to create wealth they must earn more than the cost of their debt and equity. As early as the 1920's General Motors applied this concept and in the 1950's General Electric labelled it "residual income" and applied it as a performance measure to their decentralized divisions.

However, after the introduction of residual income only a limited amount of debate occurred concerning its validity. Some suggestions are that residual income be use as both an internal and an external performance measure. In 1991 Stewart revised the computation of residual income through a series of accounting adjustments and relabelled it EVA. Since that time the debate concerning the effectiveness of EVA has been rigorous but inconclusive. Much of this debate has centred on whether EVA is a superior metric for assessing the value of a firm (Wood, 2000).

Stewart writes “Earnings, earnings per share, and earnings growth are misleading measures of corporate performance. Earnings are diminished by bookkeeping entries that have nothing to do with recurring cash flow, and are charged with such value-building capital outlays as R&D, all in an attempt to placate lenders’ desire to assess liquidation value.” Stewart fails to provide any support that the suggested accounting adjustments significantly impact and improve EVA. However, the implication is that it is the accounting adjustments which separate EVA from RI, NI, and other income measures (Wood, 2000).

What is EVA?

EVA is a value based financial performance measure, an investment decision tool and a performance measure reflecting the absolute amount of shareholder value created. It is computed as the product of the “excess return” made on an investment and the capital invested in that investment (Stewart, 2001). EVA is the net operating profit minus an appropriate charge for the opportunity cost of all capital invested in an enterprise or project. It is an

estimate of true economic profit, or the amount by which earnings exceed or fall short of the required minimum rate of return investors could get by investing in other securities of comparable risk (Stewart, 1991).

Residual income, an accounting performance measure, is defined to be operating profit with a capital charge subtracted. Thus, EVA is a variant of residual income, with adjustments to how one calculates income and capital. Stern Stewart & Co, a consulting firm based in New York, introduced the concept of EVA as a measurement tool in 1989, and trademarked it. The EVA concept is often called Economic Profit (EP) to avoid problems caused by the trade marking. Pinto (2001) asserts that EVA is so popular and well known that all residual income concepts are often called EVA even though they do not include the main elements defined by Stewart & Co.

According to Stewart (2001), firms with positive EVA provide a higher return than shareholders can earn elsewhere, and thus deserve to sell for a premium-to-book value. Firms with a zero EVA just meet investor expectations, and thus should sell for book value. Firms with negative EVA should sell at a discount-to-book value. Exceptions to the negative EVA rule are turnaround or takeover candidates, or start-ups. Economic value added (EVA) is the most straightforward antecedent of residual income. It is also considered to be the best known of the shareholder value metrics. In equation form, this concept is stated as:

$$\text{EVA} = \text{NOPAT} - [\text{CC} \times \text{C}] \quad (7)$$

NOPAT = Net Operating Profit After Tax, CC = Cost of Capital, and

C = Capital Invested.

Analyzing EVA: The Four Ms

According to Stewart (2006), EVA has four primary applications and goals it seeks to accomplish. Though each is important individually, all four work together to bring maximum value to a firm. Developed by Stern Stewart & Company (SS&C), the applications are “Measurement”, “Management System”, “Motivation”, and “Mindset”, and are the foundation of the EVA concept.

Under measurement, Stewart (2006) suggests the first step in applying the EVA concept is measuring a firm’s performance by EVA standards instead of traditional accounting methods. The reason is quite simple: GAAP accounting provides a distorted view of a company’s performance and creates numerous “anomalies” that must be corrected in order to see the firm’s true economic. In all, over 160 different adjustments could be made to GAAP accounting procedures to measure earnings and value better. They cover all aspects of business to include inventory, restructuring, and depreciation. Though not all the adjustments can be implemented at once or in every company, the underlying principle is that managers should abandon traditional accounting techniques when measuring value.

The second of the Four M’s is the EVA Management System. While simply measuring EVA can give companies a better focus on how they are performing, its true value comes in using it as the foundation for a comprehensive financial management system that encompasses all the policies, procedures, methods and measures that guide operations and strategy. However, redirecting a manager’s focus away from the bottom line is not an easy task. Wall Street rewards and punishes companies severely when they

meet or do not meet their earnings as predicted. Likewise, upper managers punish lower managers and departments when they miss targets.

Stewart (2006) describes the condition of traditional management systems as follows: In a very important sense, the process of becoming an EVA company is one of subtraction as well as addition. It involves the parting away of all other financial metrics, each of which can frequently mislead managers to the wrong decision. If the stated corporate goal is to maximize the rate of return on net assets, for example, highly profitable divisions will be reluctant to invest even in attractive projects for fear of eroding their returns. Underperformers, meanwhile, will be eager to invest in almost anything, even if the expected return is below the firm's cost of capital, in order to lift their average return and buy their way out of trouble. The uniform focus on continuously improving EVA, in contrast, provides the best insurance that all managers are making the right decisions for shareholders. The pressure of meeting earnings often encourages managers to make faulty business decisions for short-term profit at the expense of long-term results. Society is filled with examples of what happens when this occurs on a large scale. The most notable and still recent example is Enron (Stewart, 2006).

The third part of the EVA approach is Motivation. Linking bonuses and reward systems to earnings is not a wise strategy. Most managers will never act illegally or intentionally do things to harm their company; nonetheless, such reward systems provide incentives to make decisions counter to the company's best interest. Even if approached with good intentions, managers still might sacrifice long-term results for short-term gains. Instead, Stewart (2006) identifies compensation and incentive plans should be based on the

value managers create for shareholders, and there should be no limit on how much can be earned. The more value managers create for the company, the bigger their reward should be. Shareholders will also be content, because they will know any increase in compensation has been more than offset by the value created. In fact, under EVA, the greater the bonus for managers, the happier shareholders will be.

According to Kudla (2000), EVA changes the focus of reward systems from a negotiation act to a truly motivating system. Traditionally, managers receive a bonus for meeting a sales target or beating a budget. In either case, those targets are usually pre-defined at the beginning of the year, and a manager's biggest incentive is to negotiate targets he can easily meet. The goal is then met and the manager gets his bonus. In addition, if the bonus is the same each year or limited to a certain amount, then the manager has even more of an incentive to just barely beat his targets. If the manager beats the targets by a lot, then he or she risks having his expectations raised the following year, making the same bonus harder to achieve. EVA bonus systems, however, take negotiation out of the system and replace it with a strong incentive to perform better. With EVA, bonus targets automatically reset according to the EVA formula:

$$\text{Bonus} = K_1 [\text{EVA}_t - \text{EVA}_{t-1}] + K_2 [\text{EVA}_t] \quad (8)$$

$K_1, K_2 =$ constant percentages

According to the equation, managers receive a constant percentage (K) of the change in EVA ($\text{EVA}_t - \text{EVA}_{t-1}$) and also a percentage of total EVA ($K_2 [\text{EVA}_t]$). The second part is only earned once EVA becomes positive, and in effect measures the sustainability of value created. Therefore, managers can

still be rewarded for creating value, even if a company's overall EVA is not yet positive. However, once the total EVA does become positive, managers have even more incentive to perform. This part of the equation encourages managers to make decisions that are beneficial for the entire company, not just his or her department. The more positive overall EVA is and the bigger the change from year to year, the larger the bonus will be. Bonuses are determined entirely by how hard they work, and there is no limit as to how high the rewards can go. Thus, EVA managers are strongly motivated to create more and more value for the shareholder year after year. If accomplished, then the manager gets rewarded very well for his or her efforts but can still do better the next year (Kudla, 2000).

Secondly, EVA changes the way bonuses are distributed. Instead of issuing the full amount at the end of the year, EVA encourages storing portions earned for several years to make sure that EVA improvements are sustainable. Therefore managers are not rewarded for short-term value created. Due to this feature, managers could potentially have negative bonus earnings in a year where EVA dropped significantly. Managers should have incentives to go for big projects, ones that will add long-term, sustainable value to the company. If rewards are given for short-term successes as in traditional systems, most managers will lose focus on creating lasting value. The EVA result is annual budgets that are driven by aggressive strategy instead of strategy that is constrained by modest budgets (Kudla, 2000).

The final component of the EVA framework is recreating the corporate mindset. However, truly changing the way managers think and operate is not an easy task. A lot of time and effort must be spent to ingrain the EVA

systems into a company culture. While measurements, management systems, and motivation techniques are the tools EVA uses, the real goal is accomplished when people change their perspective and discover the need for what they are doing (Stewart, 2006).

Implementing EVA

To fully ingrain EVA into a company's culture and maximize effectiveness, it must be the central focus of the business. To do that, a number of steps must be taken.

First, upper managers must stand strongly behind the change. A solid commitment from senior management is vital for successful integration and implementation of EVA programs: "Without management buy-in, employees may view the program as just another temporary corporate trend" (Kudla, 2000).

Secondly, EVA must be the dominant measurement system and not just added to others: Because EVA is a measure of total factor productivity; it can and should supersede other financial and operating measures, resulting in a hierarchical as opposed to a 'balanced' scorecard.

Thirdly, EVA must influence decision making. The mindset of increasing shareholder wealth with every decision will not take hold unless routinely practiced.

Lastly, the implementation process must be given time. Depending on the size of the company, the full integration period may take several years, and the actual start of wealth creation may take even longer. The timing also depends on how wide the implementation process is. Some companies do not

have the money or resources to implement EVA across the entire company. A company-wide plan also requires a significant amount of training throughout the organization:

Even when finances are not at issue, educating and training employees on the concepts of EVA is a formidable task. Employees must understand how they influence EVA through their actions. Key value drivers need to be identified at all organizational levels. After the program is implemented, the company must commit to continuous training to ensure that employees stay up to speed (Kudla, 2000). Implementing the EVA system is not an easy task; however, the results of doing so make it a worthwhile process.

EVA and Managerial Performance

An appropriate performance measure should assess how managerial actions affect the firm value. In this regard EVA is considered as better alternative to the traditional performance measures such as Profits, EPS, and ROE etc. EVA based performance drive managers to employ firm's assets more productively and it helps in reduction of differences in the interests of the managers and shareholders (Kudla, 2000).

Biddle, Bowen and Wallace (1997) concluded in a study that firms that adopt residual income based incentives plans exhibit increased income. This study supports that managers do respond to residual income based plans. Therefore, EVA and residual income could prove effective in motivating managers for shareholder wealth creation but whether implementation of EVA and residual income based incentives have been truly effective remain an open question for future research. An effective EVA compensation system requires

a substantial commutation effort and extensive training for both managers and their subordinates. “You lose about 50% of the power of EVA if the incentive plan is not truly driven by it” (Stewart 2001).

How to Improve EVA

There are countless individual operational things that create shareholder value and increase EVA. Often EVA does not directly help in finding ways to improve operational efficiency except when improving capital turnover. Nor does EVA help directly in finding strategic advantages that enable a company to earn abnormal returns and thus create shareholder value. It is however often helpful to understand the basic ways in which EVA and thus the wealth of shareholders can be improved (Wood, 2000). Increasing EVA falls always into one of the following three categories:

1. Rate of return increases with the existing capital base. It means that more operating profits are generated without tying any more capital in the business.
2. Additional capital is invested in business earning more than the cost of capital. (Making NPV positive investments.)
3. Capital is withdrawn or liquidated from businesses that fail to earn return greater than the cost of capital.

The first method includes all the countless ways to improve operating efficiency or increase revenues. Of course increasing rate of return with current operations and new investments (that is categories 1 and 2) are often linked; in order to improve the efficiency of ongoing operations, companies often do investments which enhance also the return on current capital base.

The fact that the wealth of shareholders increase with investments returning more than the cost of capital (category 2) is probably known in organizations if they also use some kind of weighted average cost of capital (WACC) and Net present value (NPV) methodology in investment calculations. This rule is actually completely same as accepting only NPV-positive investments. The third category, withdrawing capital, is probably not so widely understood and applied as the previous ones. It is however also very important to realize that shareholder value can also be increased if capital is withdrawn from businesses earning less than the cost of capital. Even if an operation has positive net income, it might pay to withdraw capital from that activity. It is also kind of withdrawal when access inventories and receivables and thus the capital costs caused by them are reduced without corresponding decreases in revenues.

These categories and ways to improve EVA might appear to be quite simple. They are certainly not new ways to improve the position of shareholders. Decreasing cost of capital is not included in this list of methods. That is because it can not normally be done without changing line of business and in that way changing business risk. Changing financial leverage affects WACC only slightly via increased tax shield (Wood, 2000).

Limitations of EVA

Like other financial performance measures, such as return on investment (ROI), EVA, on its own, is inadequate for assessing a company's progress in achieving its strategic goals and in measuring divisional performance. Other more forward-looking measures, often non-financial in

nature, should be included in regular performance reports to provide early warning signs of problem areas (Wood, 2000).

In certain industries EVA alone is an inappropriate measure of financial performance. For new high growth companies, such as those in the new technology-intensive industries, year-on-year changes in EVA, which may be negative at times, are unlikely to explain changes in a firm's value, given that the value is dependent on future expected cash flows.

Another problem of EVA is that it is distorted by inflation, with the result that it cannot be used during inflationary times to estimate actual profitability. A superior measure, the adjusted EVA, corrects for inflationary distortions (Wood, 2000).

Also, the practical difficulty of estimating EVA cannot be overlooked. The first difficulty is in finding correct cost of equity and then the number of adjustments on the accounting information.

Theoretical Review

Shareholder Theory

The shareholder theory emanates from an economic perspective, focusing on the firm's purpose of creating wealth for its owners while minimizing both the importance of the firm's interaction with its other constituencies and its role in society. Friedman and Miles (2006) suggested that the origins of the ideas shaping shareholder theory are more than 200 years old, with roots in Adam Smith's (1776) "The Wealth of Nations". In general, shareholder theory encompasses the idea that the main purpose of business lies in generating profits and increasing shareholder wealth. Modern

proponents of shareholder theory deduce three tenets from Smith, the importance of “free” markets, the “invisible hand of self-regulation;” and the importance of “enlightened self-interest.”

Shareholder theorists call for limited government and regulatory intervention in business, believing markets are best regulated through the mechanism of the invisible hand—that is, if all firms work in their own self-interest by attempting to maximize profits, society at large will benefit. Some proponents of the shareholder view even believe that the invisible hand checks illegal activity, arguing that the market will punish, or weed out, firms that engage in illegal or unethical behaviour. Therefore, they conclude that, in general, excessive oversight and regulation of industry is unnecessary. Shareholder theory in its current form is linked most directly to Milton Friedman, who has argued for nearly four decades that the overriding purpose of the firm is to maximize shareholder wealth. They believe solving social problems is the responsibility of the state.

The theorist believes that firms are created to make money, not oversee the social or moral development of society. Social and moral development, according to them, is best handled by the government or (preferably) through Non-Governmental organizations (NGOs). When firms become involved in social or public policy issues, wealth is diverted to issues outside the core expertise of their managers. This inefficient use of wealth will negatively affect society in the long run. Friedman’s negative view of socially involved companies went so far as to proclaim that such actions usurped the role of democratically elected officials. It is important to note that he never espoused firms acting un-ethically, immorally, or illegally. In fact, while promoting the

corporate goal of “maximizing shareholder wealth,” he argued that this must be done within the moral, ethical, and legal boundaries of society. He asked only that government and the citizenry assume their rightful roles in creating those boundaries.

Shareholder theory today

Friedman and Miles (2006) identify one of the influential and recent schools of thought under the broad umbrella of shareholder-based theories as the agency theory. The agency theory focuses on behaviours that can maximize firm efficiency. The primary focus is on the principal vs. agent (shareowner vs. manager) relationship in publicly traded firms, and how to best align the competing interests of the two parties to maximize firm value.

The agency theory

The theory holds that managers will not act to maximize the returns to shareholders unless appropriate governance structures are implemented in the large corporation to safeguard the interests of shareholders. Agency theory argues that in the modern corporation, in which share ownership is widely held, managerial actions depart from those required to maximize shareholder returns. Jensen (1994) suggested that in agency theory terms, the owners are principals and the managers are agents and there is an agency loss which is the extent to which returns to the residual claimants, the owners, fall below what they would be if the principals, the owners, exercised direct control of the corporation.

The agency theory specifies mechanisms which reduce agency loss. These include incentive schemes for managers which reward them financially for maximizing shareholder interests. Such schemes typically include plans whereby senior executives obtain shares, perhaps at a reduced price, thus aligning financial interests of executives with those of shareholders. Other similar schemes tie executive compensation and levels of benefits to shareholders returns and have part of executive compensation deferred to the future to reward long-run value maximization of the corporation and deter short-run executive action which harms corporate value.

The “model of man” underlying agency and organizational economics is that of the self-interested actor rationally maximizing their own personal economic gain. The model is individualistic and is predicated upon the notion of an in-built conflict of interest between owner and manager. Moreover, the model is one of an individual calculating likely costs and benefits, and thus seeking to attain rewards and avoid punishment, especially financial ones. This is a model of the type called Theory X by organizational psychologists.

There are, however, other “models of man” which originate in organizational psychology and organizational sociology. Here organizational role-holders are conceived as being motivated by a need to achieve, to gain intrinsic satisfaction through successfully performing inherently challenging work, to exercise responsibility and authority, and thereby to gain recognition from peers and bosses. Thus, there are non-financial motivators. Moreover, identification by managers with the corporation, especially likely if they have served there with long tenure and have shaped its form and directions, promotes a merging of individual ego and the corporation, thus melding

individual self-esteem with corporate prestige. To the degree that an executive feels their future fortunes are bound to their current corporate employers through an expectation of future employment or pension rights, then the individual executive may perceive their interest as aligned with that of the corporation and its owners, even in the absence of any shareholding by that executive

Jensen and Murphy (2010) stated that an implication of agency theory is where CEO duality is retained; shareholder interests could be protected by aligning the interests of the CEO and the shareholders by a suitable incentive scheme for the CEO. This can be done by a system of long-term compensation additional to basic salary. Where CEOs hold the dual role of chair, the presence of long-term compensation will align their interests with shareholders and forestall the loss in shareholder benefit which otherwise will result from the dual role. Any superiority in shareholder returns observed among dual CEO chairs over independent chairs would be explained away by agency theory as being due to the spurious effects of financial incentives. By contrast, stewardship theory would hold that any observed superiority in shareholder returns from CEO duality was not a spurious effect of greater financial incentives among CEO-chairs than among independent chairs.

The stakeholder theory

Friedman and Miles (2006) observe the stakeholder theory differs from other "theories of the firm" in fundamental ways. The stakeholder theory is intended both to explain and to guide the structure and operation of the established corporation. The theory views the corporation as an organizational

entity through which numerous and diverse participants accomplish multiple, and not always entirely congruent, purposes. The stakeholder theory is general and comprehensive, but it is not empty; it goes well beyond the descriptive observation that "organizations have stakeholders.

The stakeholder theory can be, and has been, presented and used in a number of ways that are quite distinct and involve very different methodologies, types of evidence, and criteria of appraisal. Three common types of uses are;

Descriptive/Empirical

The theory is used to describe, and sometimes to explain, specific corporate characteristics and behaviours. For example, stakeholder theory has been used to describe the nature of the firm, the way managers think about managing, how board members think about the interests of corporate constituencies and how some corporations are actually managed.

Instrumental theory

The theory, in conjunction with descriptive/empirical data where available, is used to identify the connections, or lack of connections, between stakeholder management and the achievement of traditional corporate objectives (e.g., profitability, growth).

Normative theory

The theory is used to interpret the function of the corporation, including the identification of moral or philosophical guidelines for the operation and management of corporations. Normative concerns dominated the classic stakeholder theory statements from the beginning and this tradition has been continued in the most recent versions. Even Friedman's (1970) famous attack on the concept of corporate social responsibility was cast in normative terms.

Empirical Review

Traditionally, most studies have focused on accounting profits, earnings and accruals, but more recently cash flows and residual income have attracted attention. A number of additional variables have been investigated within this construct. The number of studies in the value relevance literature is rather large. Among these studies, the focus is on those dealing with shareholder value and, therefore, on the studies that explicitly analyse the value relevance of performance measures in the light of creating shareholder value; and assess the value relevance of modern performance measure (especially EVA, the most popular) over traditional accounting measures. Adopting these criteria, the number of studies becomes smaller and few have investigated this issue with respect to the banking industry.

International Review of EVA

Several studies have examined the relationship between EVA and value maximisation outside the African continent. O'Byrne (1996) analyses

industrial companies in the United State of America using a two-step analysis. He found an R^2 for EVA of 0.56, which enabled him to conclude that EVA was superior to earnings in explaining firm value.

Peterson and Peterson (1996) analysed traditional and innovative measures of performance and compared them with stock returns. According to their findings, traditional measures are not empirically less related to stock returns than EVA measures: as a result, they argue that traditional measures should be not eliminated as a means for evaluating performance. They however affirm that EVA measures are worthwhile. They also note that since value added measures focus on economic rather than accounting profit, they play an important role in evaluating performance because managers will aim towards value creation rather than mere manipulation of short sighted accounting figures.

Uyemura, Kantor and Petit (1996) analysed the largest 100 U.S. bank holding companies over a period of ten years (1986-95). By regressing changes in standardised Market Value Added (MVA) against changes in standardised EVA (defined as EVA divided by capital) and traditional performance measures, EVA was found to have the highest correlation with MVA.

Also, Al Ehrbar (1998) reports that several empirical analyses have been carried out by Stern Stewart using the Performance 1000 database. According to the Stern Stewart findings, EVA explains half of the volatility in companies' MVA, the highest correlation found.

Acheampong and Wetzstein (2001) propose an innovative type of analysis using parametric methods for estimating productive efficiency,

focussing on the food industry. It is interesting to note that they conclude that: “the analysis showed that there are no significant differences between traditional and value added measures of performance”.

Shubita (2010) examines the information content of EVA, residual income, and accounting earnings for Industrial companies in Jordan. The results show that net income outperforms EVA and residual income.

African review

Several studies have examined the relationship between EVA and shareholder value maximisation internationally but less tested on the African continent. Jansen (1998) researched EVA as an investment decision-making measure on the South African Marine Corporation Limited, a shipping and air transport company trading internationally. He concluded that EVA is a mechanism for new project investment decision-making.

Hall (1998) did a study on variables that determined the shareholder value of industrial companies listed on the Johannesburg Security Exchange (JSE). He found that meaningful mathematical relationships existed between the variable that effect shareholder wealth and shareholder value.

DeWet (2005) conducted a study on EVA–MVA relationship of 89 companies in South Africa and found that EVA did not show the strongest correlation with MVA.

Relationship between EVA and Stock Return

Proponents of EVA claim that EVA is highly correlated with stock returns. EVA derives stock prices (Stewart, 1995) better than other accounting based performance indicators.

Bao and Bao (1998) studied the usefulness of EVA and abnormal economic earnings of US firms and results indicate that EVA is a significant factor in market returns and its explanatory power is higher than that of accounting earnings.

Chen and Dodd (1997) reported that EVA measure provides relatively more information than the traditional measures of accounting profits. They also found that EVA and RI (Residual Income) variables are highly correlated and identical in terms of association with stock returns.

Worthington and West (2004) provided Australian evidences regarding the information content of EVA and concluded that stock returns to be more closely associated with EVA than residual income, earnings and net cash flow.

There are some studies that do not support the claim that EVA provides better stock returns. (Biddle et al., 1997 and 1999) analyzed a sample of firms over the period 1984-93 by comparing the stock market adjusted returns against EVA, Residual Income and Operating Cash Flow. The results do not support that EVA dominates traditional performance measures in its association with the stock market returns.

Ismail (2006) conducted a study on EVA and its association with stock returns viz- a- viz accounting earnings and stock returns and found that net operating profit after taxes and net income outperform EVA in explaining stock returns.

Kyriazis and Anastassis (2007) in their study of Greek firms concluded that relative information content tests reveal that net and operating income appear to be more valuable than EVA. EVA components add only marginal information content as compared to accounting profit.

Various reasons are suggested by various researchers (Biddle 1998) why EVA performs relatively poor in comparison with other measures like earnings in explaining the stock returns. The important reasons are estimation errors in calculating capital charge (WACC) and accounting adjustments as compared to what market is using to value firms.

Relationship between EVA and MVA

A thorough discussion has been presented on the structure and goals of EVA, but how does EVA translate into the real marketplace? How does the increased value that EVA produces for shareholders actually get to the shareholders? One method is by natural stock appreciation. If a company performs well by EVA standards, it will almost always translate into higher performance on the income statement. However, another method is through EVA's close relative, Market Value Added (MVA). EVA and MVA are inseparably linked, but they are two separate measurements. In a basic sense, MVA shows how the marketplace thinks about EVA. Related to MVA, EVA measures the wealth a company creates each year. Think of MVA as the value the market places on the future stream of annual EVAs. Generating big, positive EVA year after year is the key to enriching investors (Tully, 1998). Verma (2000) used market value added measure to examines bank's

performance in India and found that Indian banks have been able to create shareholders wealth

Stewart (1991) examined the informational content of EVA canvassing 613 American companies comparing two periods, namely 1984–85 and 1987–88. He found a strong correlation between EVA and MVA, which becomes more apparent when the changes in EVA and MVA are considered giving an R^2 of about 97%. In a subsequent study again by Stewart (1994) which investigated the performance of the largest 1,000 American companies, he reported that the change in EVA explains 50% of the change in MVA (the remaining 50% is explained by the future EVA).

In an attempt to establish the relationship between various performance metrics and the stock market return, Lehen and Makhija (1997) found that the EVA and MVA are highly correlated with the stock market returns with coefficient of correlation of 0.59 and 0.58 respectively compare with ROE of 0.455 and ROA of 0.455.

Dastgir and Izadinia (2004) also indicate that there are significant relationships between EVA, market value and market value added (MVA) measures, in the Iranian context.

Irala (2007) investigated firm's performance measurement in India by using financial information of 6 years. The results of the study show that EVA is a more suitable predictive measure of market value than other traditional accounting measures.

Summary

What is clear though, from reviewing a number of other studies, is that when the objective is to examine the performance of firms which have adopted control measures based on EVA, then most researchers (Lehn & Makhija, 1997) agree that EVA has the highest explanatory power of MVA than any other variable and leads to increased operational efficiency (Wallace, 1996; Lehn & Makhija, 1997).

CHAPTER THREE

METHODOLOGY

Introduction

The chapter presents the methodology for analysing shareholder economic value added of publicly listed banks in Ghana. The chapter discusses the tools and procedures employed in the study. They include the research design, population, sample and sampling technique use, sources of data, data collection and data analysis procedures focusing on listed banks listed on the Stock Exchange from 2006 to 2010.

Research design

The purpose of this research is to analyse shareholders' economic value addition of listed banks in Ghana. The study employs exploratory research technique in establishing the relationship between value addition and performance ratios. An exploratory study finds out what is happening; seeks new insights; asks questions and assesses phenomenon in a new light (Patton, 2002). It is particularly useful if a researcher wishes to clarify an understanding of a problem or a situation. Exploratory study can be both qualitative and quantitative. The study considers both quantitative and qualitative (mixed) methods (Creswell, 2003). Qualitative methods provide a deeper analysis and allow for a richer and an in depth understanding of how

people make meaning of their situation or interpret phenomena. The rationale for using qualitative research is to understand how listed banks on the stock exchange create value for their shareholders. The qualitative methods used include observing past data and trend analysis.

However, quantitative study is based on causal inference and the use of standardized measures to produce quantified data that can be statistically analyse, discovering description data that may be comparable and transferable to other situations is best understood using qualitative study (Patton, 2002). The quantitative aspect used includes graphs, tables, averages, percentages, correlation and regression in explaining the study.

Population

Fredrick and Forzano (2006) noted that population is the entire set of individuals of interest to a researcher. The study therefore considers all banks listed on the Ghana Stock Exchange as the population for the study. However, the target population which is the group defined by the researcher's specific interest is all banks listed on the Ghana Stock Exchange within the study period of 2006 to 2010. Out of nine eligible banks on the stock exchange, eight were selected for the study. These banks were selected because they were listed on the stock market between 2006 and 2010 and could provide the information the research needed. They included CAL bank Ghana Ltd, Ecobank Ghana Ltd, Ecobank Transnational Incorporated, Ghana Commercial bank Ltd, HFC Ghana Ltd, Standard Chartered Bank Ghana Ltd, SG-SSB Ghana Ltd and Trust Bank.

Sample and sampling technique

The study employed non-probability sampling technique. More specifically, purposive sampling technique was used for the study. The basis for this sampling technique is that it enables the researcher to select banks that are listed on the stock exchange that can provide reliable answers to research questions based on the set objectives. On the basis of this, eight banks were selected for the study.

Selected banks for the study

CAL Bank Limited

CAL Bank Limited formerly Continental Acceptances Limited and then CAL Merchant Bank was incorporated on March 20, 1989 under the Companies Code, 1963 Act 179, as a private company limited by shares. The Bank was licensed in June 1990. CAL Bank commenced operations in July 1990, and is considered to be one of the most innovative banks in Ghana. CAL was listed on the Ghana Stock Exchange on November 5, 2004. As of December 2010, the bank's total assets were valued at about US\$266 million (GHS 510 million), with shareholders' equity of approximately US\$41 million (GHS 79 million).

Ecobank Transnational Incorporated (ETI)

ETI, a public limited liability company, was established as a bank holding company in 1985 under a private sector initiative spearheaded by the Federation of West African Chambers of Commerce and Industry, with the support of the Economic Community of West African States (ECOWAS).

In October 1985, ETI was incorporated with an authorised capital of US\$100 million. The initial paid up capital of US\$32 million was raised from over 1,500 individuals and institutions from West African countries. It was listed on the Ghana Stock Exchange on September 11, 2006. The largest shareholder was the ECOWAS Fund for Cooperation, Compensation and Development (ECOWAS Fund), the development finance arm of ECOWAS. As of December 2010, the bank's total assets were valued at approximately US\$10,446.5 million (GHS: 1,465.4 million), with shareholders' equity of approximately US\$ 1,292.6 million (GHS: 1,809.7million).

Ecobank Ghana Limited

Ecobank is the leading pan African banking group in Africa with a presence in more African countries than any other bank. Ecobank currently operate in 25 African countries. In all the markets in which Ecobank operates, they are recognized as one of the leading banks, providing a full range of wholesale, retail, commercial, investment and transaction banking services and products. Ecobank was incorporated on January 9, 1989 and was listed on the Ghana Stock Exchange on July 14, 2006. As of December 2010, the bank's total assets rose up 16% to approximately US\$10.5 billion (GHS: 15.2 billion), with shareholders' equity of approximately US\$1.3 million (GHS: 1.8million).

Ghana Commercial Bank Limited

The bank was founded in 1953, with 27 employees, as the Bank of the Gold Coast. Initially, it focused on serving Ghanaian traders, farmers, and business people, who could not obtain financing from the expatriate banks. In

1957, when Ghana attained Independence, the bank rebranded to Ghana Commercial Bank, to concentrate on commercial banking, since Bank of Ghana had been created to function as the central bank and banking regulator. In the beginning, the bank was wholly owned by the Government of Ghana. However, beginning in 1966, the government started partial divestiture until today, when government shareholding stands at 21.4%. Subsequently, the stock of the bank was listed on the Ghana Stock Exchange on May 17, 1996. Today, GCB serves the banking needs of large corporations, small and medium enterprises as well as individuals. As of December 2010, the bank's total assets were valued at approximately GHS: 2,112.8 million, with shareholders' equity of approximately GHS: 250 million.

HFC Bank (Ghana) Limited

HFC Bank (Ghana) Limited (formerly Home Finance Company) was licensed as a mortgage financing institution to implement the IDA/SSNIT Pilot Housing Finance Programme in Ghana. HFC was incorporated on May 7, 1990 under the Ghana Companies Code 1963 (Act 179) as a private limited liability company. The Company commenced business on December 2, 1991 and was licensed by the Bank of Ghana as a non-bank financial institution on August 1, 1994.

HFC was converted to a public limited liability company on October 5, 1994 and got listed on the Ghana Stock Exchange on March 17, 1995. The objectives of the institution included the overall program development and management of a new housing finance system being implemented under an International Development Association (World Bank affiliate) project.

On September 17, 1996, HFC issued the first corporate bond (HFC House bond) on the Ghana Stock Exchange with a shelf registration of \$35 million to finance foreign currency mortgage.

On July 30, 2001, the Bank of Ghana issued HFC with a deposit taking authorization and finally on November 17, 2003 the Bank of Ghana finally issued HFC with a Universal Banking License culminating in the company changing its name to HFC Bank (Ghana) Ltd. As of December 2010, the bank's total assets were valued at approximately GHS: 384.5 million), with shareholders' equity of approximately GHS: 71.8 million).

SG-SSB Limited

SG-SSB began in 1975 as "Security Guarantee Trust Limited" and the next year changed its name to "Social Security Bank Limited", or "SSB". In 1994, SSB and the "National Savings and Credit Bank" merged under a World Bank program. The next year, the government of Ghana divested its 21% share of the bank and it was converted to a public limited liability company and subsequently listed on the Ghana Stock Exchange. In 2004, the bank rebranded as SG-SSB after Societe Generale acquired a 51% controlling interest in the institution. As of December 2010, the bank's total assets were valued at approximately US\$423.4 million (GHS:685.9 million), with shareholders' equity of approximately US\$71.9 million (GHS:116.2 million).

Standard Chartered Bank Ghana Limited

The Standard Bank was founded in the Cape Province of South Africa in 1862 by John Paterson, and started business in Port Elizabeth in the following year. The bank was prominent in financing the development of the

diamond fields of Kimberley from 1867. It later extended its network further north to the new town of Johannesburg when gold was discovered there in 1885. The bank expanded in Southern, Central and Eastern Africa and had 600 offices by 1953. In 1965, it merged with the Bank of West Africa, expanding its operations into Cameroon, Gambia, Ghana, Nigeria and Sierra Leone. In Ghana the bank was incorporated in 1970 under the Companies Code of Ghana (Act 179) and it became a public company in 1971. In 1987 Standard Chartered Bank sold its stake in the Standard Bank, which now operates as a separate entity. It was provisionally listed on November 12, 1990 and formally listed on August 23, 1991. In February 16, 2006 the bank listed its Preference Shares on the Ghana Stock Exchange. As of December 2010, the bank's total assets were valued at approximately GHS: 1,667.9 million), with shareholders' equity of approximately US\$71.9 million (GHS: 185.8 million).

The Trust Bank Limited

The bank was founded in 1996 and commenced provision of banking services on 14 October 1996, following the issuance of a banking license by the Bank of Ghana. The Trust Bank is a retail bank that focuses on meeting the banking needs of small and medium-sized enterprises (SMEs). The bank was listed on the Ghana Stock Exchange on November 15, 2002. As of December 2010, the bank's total assets were valued at approximately D 3,415.5 million (GHS: 150.3 million), with shareholders' equity of approximately D 290.99 million (GHS: 12.92 million).

Source of data

For the purpose of this research, secondary data was collected and utilised. The secondary data consulted included but not limited to annual reports or financial statements, available literature on the subject or related area of the study, available industrial and general economic bench marks and information from the Ghana Stock Exchange of selected companies.

Data collection procedure

Financial statements and company profiles were obtained from the selected companies, their registrars or website. Stock exchange data were sought from both the Internet and available published Ghana Stock Exchange handbooks. Financial management textbooks, articles, Internet publications and similar research reports provided the needed literature support and framework for analysis, comparison, interpretation and conclusion of the results. Annual reports and financial statements published and circulated to members of the banks provided the major source of information. Internet publication on financial statement analysis and all related subjects were obtained, analysed and used for the study.

Data processing and analysis

The data was organised and subsequently entered in STATA and EXCEL software to facilitate data description and analysis. According to Yin (2003), data analysis consists of examining, categorising, tabulating, testing or otherwise recombining both quantitative and qualitative evidence to address

the initial propositions of a study. To analyse the shareholder economic value added, panel regression technique was employed.

Baltagi (2001) identifies panel data is commonly used because it has the advantage of giving more information as it consists of both the cross sectional information, which captures individual variability, and the time series information, which captures dynamic adjustment.

The panel data model can be estimated with either the fixed effect model, random effect model or the constant coefficient effects model. The fixed effects model allows the partial regression coefficients to be common across cross-sectional units, but the intercepts in the regression model are taken to be distinct among individual banks. A random effect model assumes that a common mean value for the intercepts exists and the cross-sectional differences in the intercept values of each bank are reflected in an error term. The constant coefficient effect model is appropriately utilized under the assumption that there are no significant variations in both intercepts (cross-sectional units) and slopes in a model

The preference of the fixed effects model or the random effect model is based on the Hausman tests (Baltagi, 2001). The Hausman test determines whether the estimates of the coefficients, taken as a group, are significantly different in the two regressions (fixed effects and random effects). Under the null hypothesis in the Hausman tests is that the preferred model is random effects as opposed to the alternative which says the preferred model is the fixed effect. It basically tests whether the unique errors are correlated with the

regressors, the null hypothesis is that the unique errors are not correlated with the regressors.

The correlation between MVAs, SP and EVAs and other traditional measures were examined using Pearson's coefficient of correlation. The coefficient of correlation provides an index of the direction and the magnitude of the relationship between two set of scores without implying causality. The sign of the coefficient is an indication of the direction of the relationship. The absolute value of the coefficient indicates the magnitude.

Regression analysis is used to examine the relationship of EVA, EPS, ROA and ROE with MVAs and SP. The analysis employs Generalized Least Squares (GLS) regression technique since the data is panel and as such contains time series as well as cross-sectional data.

Calculation of EVA

EVA expresses the surplus value created by a company in a given period, i.e. the firm's profit net of the cost of all capital. This measure is computed as the product of the difference between the return on invested capital (ROIC) and its composite financing cost (i.e. cost of capital - CC) and the capital invested (CI).

$$\text{EVA} = \text{CI} * (\text{ROIC} - \text{CC}) = (\text{CI} * \text{ROIC}) - (\text{CI} * \text{CC}) = \text{NOPAT} - (\text{CI} * \text{CC})$$

(9)

Two procedures have been applied to calculate EVA. The first is a standard procedure for non-financial companies (labelled EVAstd) and the second is a procedure tailored for accounting for banking peculiarities

(EVA_{Abkg}). By adopting a double set of EVA values, it is possible to assess the importance of accounting for peculiar characteristics of banking business.

Regarding the calculation of EVA_{std}, following a standard procedure (Velez-Pareja, 2000), capital invested is estimated using Total Assets(TA) or the sum of interest bearing liabilities and equity capital and, consequently, measure the cost of invested capital as Weighted Average Cost of Capital (WACC).

As such, EVA_{std} is obtained as follows:

$$EVA_{std} = NOPAT - (TA * WACC) \quad (10)$$

However, the second set of EVA accounts for banking peculiarities (EVA_{Abkg}), capital invested is not measured using total assets and the cost of invested capital is not estimated as Weighted Average Cost of Capital (WACC). While this solution is certainly accurate for non-banking companies, this procedure would be misleading for commercial banks. Since financial intermediation is the core business for banks, debts should be considered as a productive input in banking rather than a financing source (as for other companies).

As such, interest expenses represent the cost for acquiring this input and, consequently, should be considered as an operating cost rather than a financial cost (as for other companies). As a consequence, if the capital charge is calculated following a standard procedure (applying WACC on total assets), EVA will be biased since it will double count the charge on debt. Hence, the charge on debt should be firstly subtracted from NOPAT (the capital charge is calculated on the overall capital: equity and debt - invested in the bank and, consequently, it includes the charge on debt) and, secondly, it would be

subtracted from operating proceeds in calculating NOPAT: interest expenses (the charge on debt capital) are in fact subtracted from operating revenues. In the case of banks, it seems reasonable to calculate the capital invested (and, consequently, the capital charge) focussing on equity capital and measure the capital invested in the bank as the book value of shareholder equity.

Regarding the cost of capital, the capital charge cannot be obtained applying the bank's WACC on the capital invested because the latter is given by the equity capital and not by the overall capital (debt and equity). Consequently, a commercial bank's cost of capital invested should be measured by the cost of equity.

Hence, EVAbkg is obtained as follows:

$$EVAbkgt = NOPAT - (CI * Ke) \quad (11)$$

The cost of equity (ke) is estimated using the Capital Asset Pricing Model (CAPM).

The CAPM (Capital Asset Pricing Model) is given as:

$$R = R_f + \beta (R_m - R_f) \quad (12)$$

R_f is the risk free-rate, $(R_m - R_f)$ is the market risk premium expected by an investor and β is the market risk of the company.

Though incorporation of the cost of equity capital is the virtue of EVA, because it measures economic surplus, it does not remove the limitations of the accounting profit that forms the basis for computing EVA. Moreover the virtue might not be realized in practice since it is not easy to calculate the cost of equity. Market returns cannot be used as a proxy for cost of equity that supports assets in place because market discounts the expectations.

Similarly it is difficult to use CAPM in measuring cost of equity because it is difficult to measure risk-free-rate of return, beta and market premium. Difficulties get compounded in an economic environment where interest rates fluctuate frequently, the capital market is volatile and the regulators are yet to have a complete grip on the capital market to enhance its efficiency. In a non-Efficient Market Hypothesis (EMH)-world, the validity of using the CAPM for calculating the component costs of capital is questionable because of the inter-related nature of the CAPM with the EMH. Although the Sharpe-Lintner and Fisher Black versions of the CAPM chronologically predate the formulation of the EMH by Fama, the assumptions underlying the EMH are also necessary to derive the CAPM. In short, the CAPM is dependent on the existence and functioning of the EMH, consequently in a non-EMH-world, the CAPM and beta should not be used to calculate the cost of equity that forms part of WACC. Empirical studies show that the volatility in capital markets, like capital markets in developing economies, is higher than capital markets in developed economies hence the use of Monetary Policy Rate as a proxy for the cost of equity (Tushar, 2000).

Hence the study employs the Monetary Policy Rate as a proxy for the cost of equity for the study. The Monetary Policy Rate was chosen because:

1. It is the base rate for all rates (cost of capital) in the country.
2. It is the rate at which banks borrow from the Central Bank.

As such, EVAbk is obtained as follows:

$$EVAbk = NOPAT - (CI * MPR) \quad (13)$$

Calculation of Market Value Added (MVA)

Brigham and Ehrhardt (2002) stated that MVA represents the difference between the total market of a firm and the total amount of investor-supplied capital. If market values of debt and preferred stock equal their values as reported on the financial statements, then MVA is the difference between the market value of a firm's stock and the amount of equity its shareholders have supplied. The positive MVA indicates that the value and investment created by the manager is more than the capital supplied by the investors, vice versa.

$$\text{MVA} = \text{Market Value} - \text{Capital Invested} \quad (14)$$

Where,

$$\text{MV of Stock} = \text{Market Shares Outstanding} \times \text{Stock Price} \quad (15)$$

$$\text{Capital Invested} = \text{Total Book Value of Debt and Equity} \quad (16)$$

Calculation of Accounting Performance Ratios

The following accounting performance ratios ROE, ROA and EPS were considered under the study.

Return on Asset (ROA)

Return on assets (ROA) is a financial ratio that shows the percentage of profit that a company earns in relation to its overall resources (total assets). Return on assets is a key profitability ratio which measures the amount of profit made by a company per dollar of its assets. It shows the company's ability to generate profits before leverage, rather than by using leverage. Unlike other profitability ratios, such as return on equity (ROE), ROA

measurements include all of a company's assets – including those which arise from liabilities to creditors as well as those which arise from contributions by investors. So, ROA gives an idea as to how efficiently management use company assets to generate profit, but is usually of less interest to shareholders than some other financial ratios such as ROE.

Return on assets is calculated by dividing a company's net income (usually annual income) by its total assets, and is displayed as a percentage.

$$\text{ROA} = \text{Net Income after tax} / \text{Total assets (or Average Total assets)}$$

(17)

Return on Equity (ROE)

Return on equity (ROE) is the amount of net income returned as a percentage of shareholders equity. It reveals how much profit a company earned in comparison to the total amount of shareholder equity found on the balance sheet. ROE is one of the most important financial ratios and profitability metrics. It is often said to be the ultimate ratio or the ‘mother of all ratios’ that can be obtained from a company’s financial statement. It measures how profitable a company is for the owner of the investment, and how profitably a company employs its equity.

Return on equity is calculated by taking a year’s worth of earnings and dividing them by the average shareholder equity for that year, and is expressed as a percentage:

$$\text{ROE} = \text{Net income after tax} / \text{Shareholder's equity} \quad (18)$$

The higher the ROE, the better the performance of the company. But a higher ROE does not necessarily mean better financial performance of the company.

Earning per Share (EPS)

EPS is among the most widely used ratios. It tells how much profit was generated on a per share basis. EPS is a carefully scrutinized metric that is often used as a barometer to gauge a company's profitability per unit of shareholder ownership. As such, earning per share is a key driver of share prices. It is also used as the denominator in the frequently cited P/E ratio.

EPS = Net income (less preferred dividends) / Common Shares Outstanding.

(19)

Regression Model

This model estimation explores whether market value added and share price of banks responded to the performance of each bank. The analysis employs Generalized Least Squares (GLS) (Gaussian) Regression Model technique since the data is panel and contains time series as well as cross-sectional data.

To decide whether to apply fixed or Random effects, the Hausman test was conducted. According to the results of this test the probability of chi-square is .512 which is more than .05 so the null hypothesis of Hausman test is accepted because the individual effects are uncorrelated with the other regressors' in the model. The output of Hausman test is given in appendix I.

The model focuses on the relationship between MVA and SP (dependent variables) and EVA, ROE, ROA and EPS (independent variables).

The general forms of the regression model are:

$$MVA_{it} = \alpha + \beta_1 EVA_{sit} + \beta_2 ROE_{it} + \beta_3 ROA_{it} + \beta_4 EPS_{it} + e_{it} \quad (20)$$

$$SP_{it} = \alpha + \beta_1 EVA_{sit} + \beta_2 ROE_{it} + \beta_3 ROA_{it} + \beta_4 EPS_{it} + e_{it} \quad (21)$$

Where,

“MVA and SP are dependent variables, “ α ” is the intercept, β_1 is the slope of the independent variable(s) and “ e_{it} ” is the error term. The independent variables included in the study are economic value added (EVA), return on asset (ROA), return on equity (ROE) and Earning per Share (EPS).

Summery

The study used descriptive design focusing on the relationship between SP, MVA and EVAs, accounting ratios ROE, ROA and EPS in determining shareholder value creation. Purposive sampling was used in selecting eight out of nine listed banks. Using panel data, Generalized Least Squares (GLS) (Gaussian) Regression Model technique was employed in analysing the data.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

To embark on this investigation into the values creation in these listed banks, it is important to analyze their performances and value creation attributions. The study analyzes each bank in detail based on three important areas: the analysis of accounting performance ratios ROE, ROA and EPS, the analysis of EVA and the analysis of the MVAs and SP. These areas mentioned are analyzed together to find how they associate with each other and their influence on shareholders' value creation.

Summary statistics

Table 1 shows the descriptive statistics for the main variables of the study.

Table 1: Descriptive statistics for the main variables from 2006-2010

Variables	Mean	Std. Dev.	Minimum	Maximum
MVAs	3.480	8.650	-2.360	34.979
ROE	22.500	10.540	5.230	46.540
EPS	0.737	1.326	0.008	5.253
ROA	3.41	1.630	1.100	7.690
EVAs	0.124	0.331	-0.421	1.252
SP	4.332	9.469	0.150	39.530

Source: calculated from company's financial statement, (2006-2010)

From Table 1, all the study variables have positive means with EVA having the least value of 0.1237 and ROE having the highest value of 22.4962. The rest were SP, MVAs, ROA, and EPS with 4.332, 3.480, 3.410 and 0.737 respectively.

Also, MVAs has the least minimum value of -2.36 and the ROE has the highest minimum value of 5.23. The other variables EPS, ROA, SP and EVAs have minimum values of 0.008, 1.10, 0.150 and -0.42 respectively. However, ROE has a maximum value of 46.54, with EVAs having the least maximum value of 1.25. The other variables MVAs, SP, EPS and ROA also had maximum values of 39.82, 39.53, 5.53 and 7.69 respectively.

Trend analysis

Trend analysis seeks to examine systematic historical patterns in financial statements or other quantitative data. Such analysis of data over time can vary from primarily descriptive techniques to more complex cause-and-effect methods. It is a form of comparative analysis that is often employed to identify current and future movements of an investment or group of investments. The process may involve comparing past and current financial ratios as they related to various institutions in order to project how long the current trend will continue. This type of information is extremely helpful to investors who wish to make the most from their investments (Brealey & Myers, 2000).

Trend Analysis of variables in the study

Figure 1 shows trend in share price (SP) from 2006 to 2010.

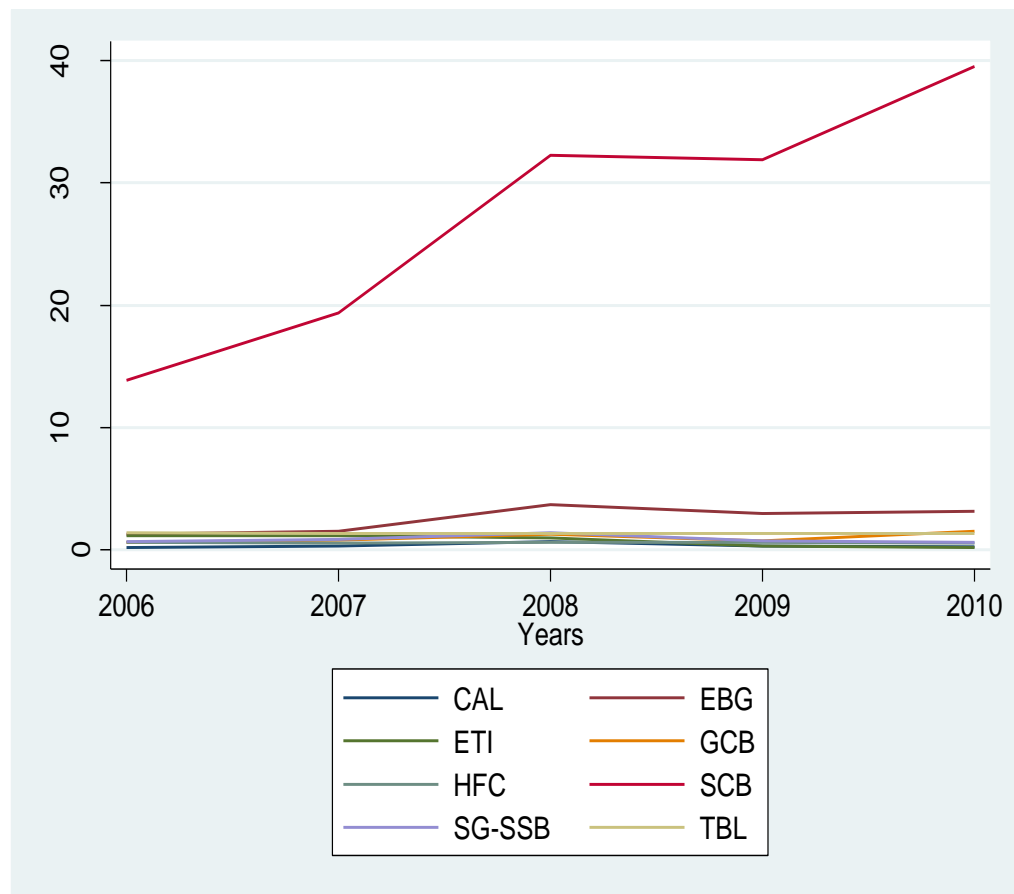


Figure 1: Trend in Share Price (SP), 2006 -2010

Source: Ghana Stock Exchange (2006 -2010)

Figure 1 shows the trend in share prices (SP) for the various listed banks. The SP of CAL, ETI, HFC, SG-SSB, GCB and TBL were stable over the five-year period. This might be as a result of low activities of the stock on the market over the period under study. However, share price of EBG show marginal growth in 2007 but became stable after 2008 to 2010. Similarly, share price of SCB saw a steady growth from 2006 to 2008 and remain stable from 2008 to 2009 and finally went up in 2009 to 2010.

Figure 2 shows trend in MVAs from 2006 to 2010.

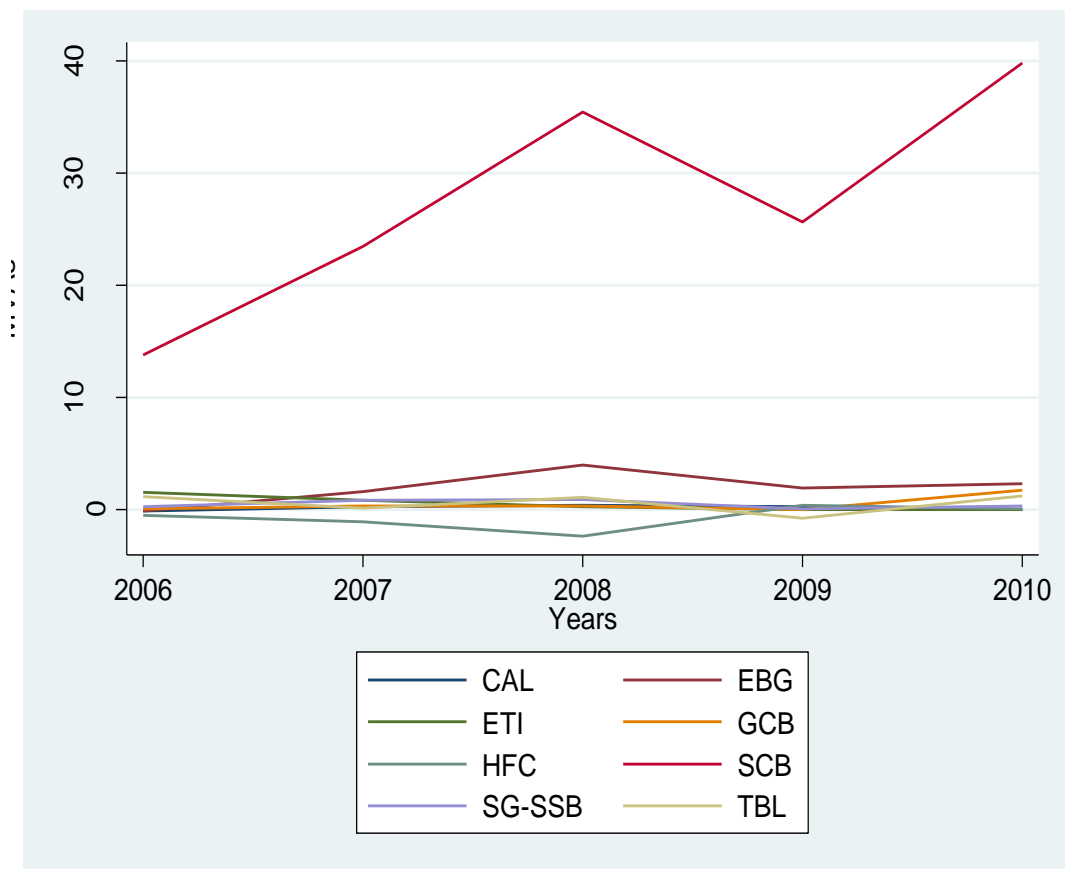


Figure 2: Trend in MVAs, (2006-2010)

Source: Calculated from company's financial statement (2006-2010)

Figure 2 depicts MVAs for the various listed banks. It clearly shows that the MVAs for CAL, GCB, SG-SSB and ETI have been stable over the five year period with an average of 0.15, 0.49, 0.46 and 0.52 respectively. However, MVAs for EBG went up in 2008 but declined subsequently in 2009 and 2010 and MVAs of EBG on the other hand went done in 2008 but manage a slight upward movement in 2009 to 2010 with average of 1.94 and -0.71, respectively. MVAs of TBL was stable for the five-year period with an average of 0.58 Ghana Cedi. These means for every share of CAL and GCB, shareholders earn an average market value of 0.15 and 0.49 Ghana Cedi respectively. Also, shareholders of SG-SSB and ETI earn an average market

value of 0.46 and 0.52 Ghana Cedi respectively over the five year period. Shareholder of EBG, HFC and TBL earns an average market value of 1.94, -0.71, and 0.58 Ghana Cedi respectively over the same period.

For SCB, the movement in MVAs have been uneven rising for a period of 3 years (2006 to 2008) and declining a year later and after started rising again. SCB had average MVAs of 24.5 over the five year period. This implies that management of SCB was able to add 24.5 Ghana Cedi value on the market to each share of the bank for the five year period. However, the MVAs dip in 2009 which was in tendon with the return of the market for the same year which saw a negative growth of -46.6 percent. SCB's MVAs performed better than the market as it declined by -27.6 percent at performing 19 percent better.

HFC bank was the only bank with a negative average MVAs of -0.71 Ghana Cedi over the five year period, thereby destroying shareholders value. All the other banks recorded positive MVAs with SCB adding the highest value followed by EBG, TBL, ETI, GCB, SG-SSB and CAL respectively which means value has been created for their shareholders.

Brigham and Ehrhardt (2002) stated that MVA represents the difference between the total market value of a firm and the total amount of investor-supplied capital. Therefore, MVA is a tool in determining how much money investors have made on their investment and the wealth a company has accumulated over time (company's wealth). The positive MVA indicates that the value and investment created by the manager is more than the capital supplied by the investors, hence when MVA is positive, the company has created wealth for its shareholders and vice versa.

Figure 3 shows trend in Return on Equity (ROE) from 2006 to 2010.

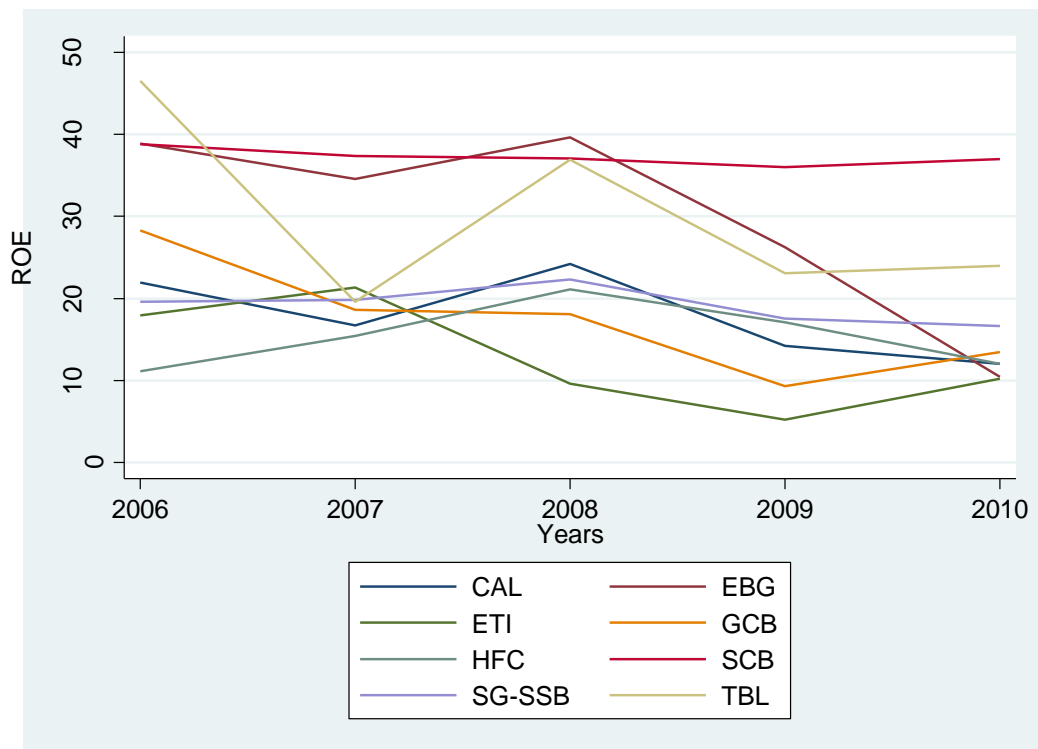


Figure 3: Trend in Return on Equity (ROE), (2006 -2010)

Source: Calculated from company’s financial statement (2006 -2010)

Figure 3 shows the trend in return on equity which have been uneven for most of the banks. The trend in return on equity for CAL, TBL and GCB has been uneven year after year with an average return on equity of 17.80, 30.04 and 17.54 percent respectively. On the other hand, ROA of SCB has been fairly stable with an average of 37.3 percent for the five year period. However, the return on equity of EBG and HFC saw an initial rise but fell after 2008 with an average of 29.94 and 15.35 percent respectively. SG-SSB and SCB saw a fairly stable return on equity over the five-year period with an average of 19.17 and 37.27 percent respectively. The return on equity of ETI fell in 2007 but saw a marginal rise in 2009 with an average of 12.85 percent for the period of the study.

However, the average banking industry return on equity for the five-year period is 21.85 percent. This shows that SCB, TBL and EBG with ROE of 37.3 percent, 30.4 percent, and 29.9 percent respectively performed over and above the industrial average. However, CAL, GCB, HFC and ETI with an average of 17.8, 17.54, 15.35 and 12.85 respectively performed below the industrial average within the study period.

The results show that for the equity employed by management within the five-year period, SCB had a higher average return followed by TBL, EBG, CAL, GCB, HFC and ETI for the five-year period under study.

Figure 4 shows trend in Earning per Share (EPS) from 2006 to 2010.

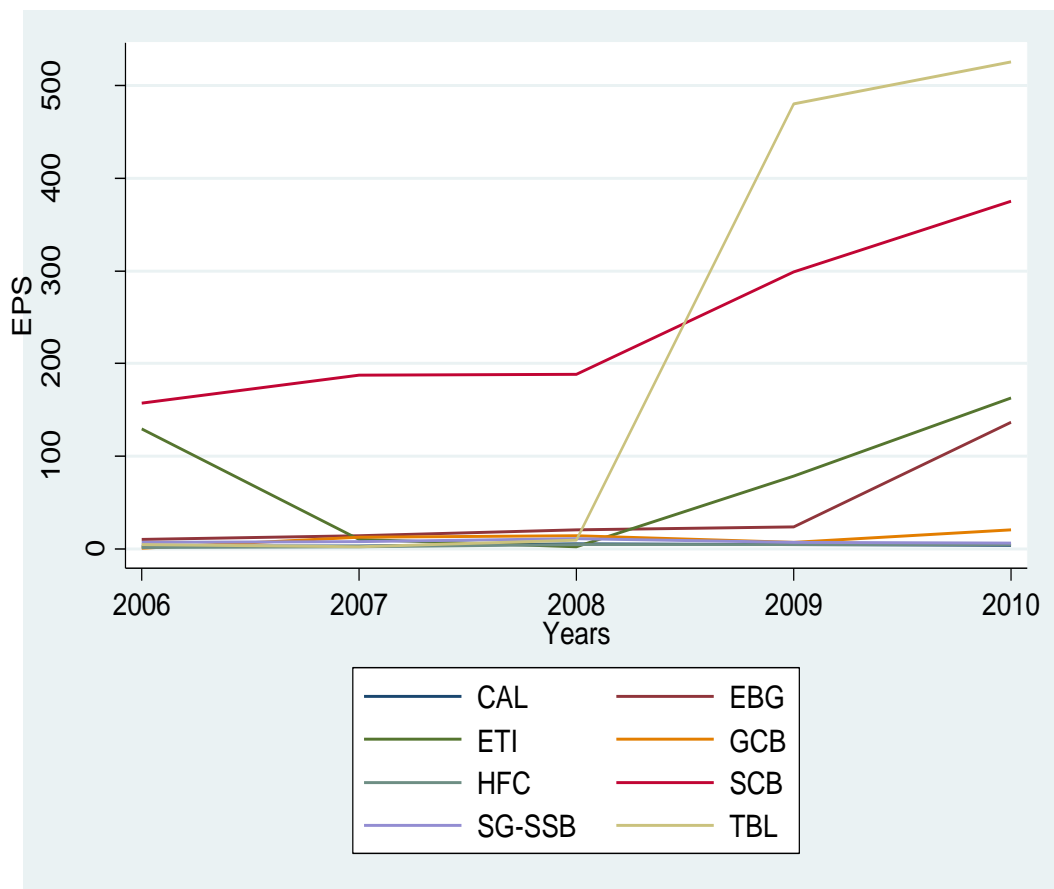


Figure 4: Trend in Earning per Share (EPS), (2006 -2010)

Source: Calculated from company's financial statement (2006 -2010)

The trend in earning per share for CAL, GCB, HFC and SG-SSB has been stable for the period under study with an average EPS of 0.040, 0.109, 0.034 and 0.077 Ghana Cedi respectively. Earning per share for SCB rose from 2006 to 2010 with an average of 2.415 Ghana Cedi. However, it has been stable for TBL for 2 years (2006-2008) after which it started rising having an average of 2.044 Ghana Cedi for the period under study. The trend in earning per share for ETI shows that it has been falling from 2006 to 2007 stabilized for a year and went up after 2008 and had an average of 0.765 Ghana Cedi for the five year period.

The study shows that EPS for shareholders of the banks has been uneven over the five year period. However, SCB shareholders had the better EPS of 2.415 Ghana Cedi for the period followed by TBL, ETI, GCB, SG-SSB, CAL and HFC with 0.765, 0.109, 0.077, 0.040 and 0.034 Ghana Cedi respectively. This means SCB generated more profit to its shareholders than the other banks followed by TBL, ETI, GCB, SG-SSB, CAL and HFC respectively within the period of study. This tells how much profit was generated on a per share basis and shows that all the banks were able to generate profit to their shareholders over the period under study.

Figure 5 shows trend in Return on Assets (ROA) from 2006 to 2010.

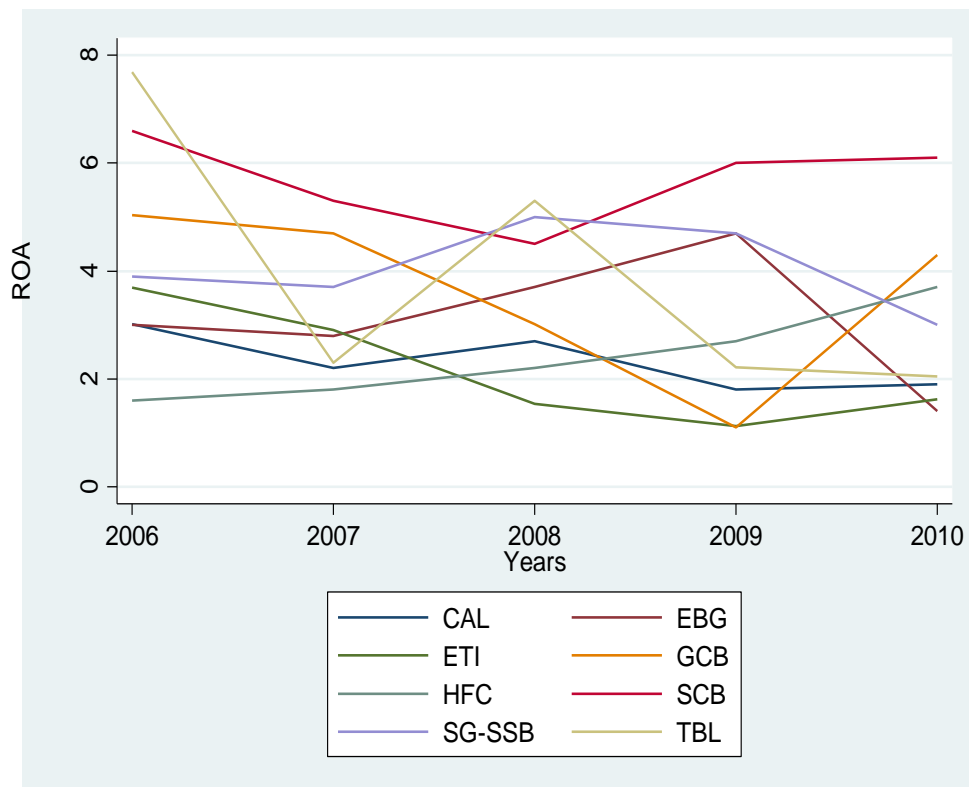


Figure 5: Trend in Return on Assets (ROA), (2006 -2010).

Source: Calculated from company’s financial statement (2006 -2010).

It can be observed from figure 5 that the return on asset of TBL has been fluctuating but gained stability from 2009 to 2010 with an average of 3.91 percent. For HFC the return on assets has been on the rise from 2006 to 2010 with a five-year average of 2.4 percent but for ETI it fell with an average of 2.18 percent over the same period. The return on assets of GCB fell initially but started rising after 2009. GCB had an average return on assets of 3.63 percent for the five year period under study. However, EBG showed the reverse situation where return on assets has been rising initially but falls after 2009 also ending the period with an average of 3.12 percent. CAL and SCB on the other hand had marginal decline and went up subsequently and had an average return on asset of 2.32 and 5.7 percent respectively. The performance

of SG-SSB was not different as it went up initially but subsequently decline after 2008 with an average five-year return on asset of 4.06 percent.

However, the banking industry average of return on asset for the five-year period was 3.38 percent. This reviews that, GCB, TBL, SG-SSB and SCB with an average return on asset of 3.63 percent, 3.91 percent, 4.06 percent and 5.7 percent respectively performed above the industrial average. On the other hand, ETI, HFC, CAL and EBG with an average ROA of 2.18 percent, 2.4 percent 2.31 percent and 3.12 percent respectively were below the industrial average.

The results show that within the five-year period under study, SCB earned high return on asset than any other bank. ROA refers to the benefit that accrues to providers of the assets in the business. It relates operating profit to total asset (resources) under management control. It is considered by many to be the single ratio for evaluating the performance of management. Hence SCB management performed better than the other banks within the five-year period in terms of the usage of asset of the banks

Figure 6 shows trend in Economic Value Added from 2006 to 2010.

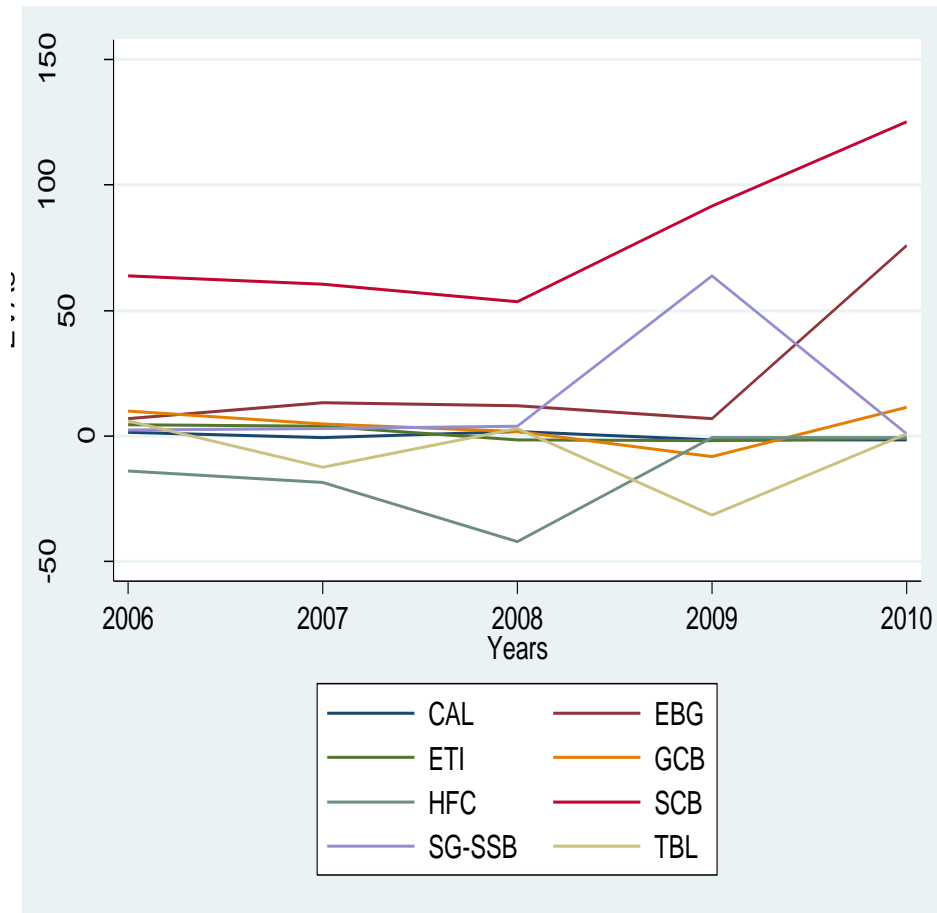


Figure 6: Trend in Economic Value Added (EVA), (2006 -2010)

Source: Calculated from company's financial statement (2006 – 2010)

The trend in economic value added for CAL and ETI has been fairly the same for the entire period with an average of -0.002 and 0.0081 Ghana cedi respectively. For EBG, GCB and SCB the economic value added has been stable initially, however, economic value added for SCB started increasing in 2008 while that of GCB and EBG started increasing in 2009. Shareholders of EBG, GCB and SCB received an average EVAs of 0.230, 0.039 and 0.789 Ghana cedi respectively. For SG-SS, economic value added has been stable from 2006 to 2008 but has been fluctuating thereafter experiencing an average of 0.147 Ghana cedi for the period under study. EVAs of HFC fell in 2007 but

went up in 2008 having an average EVAs of GHS -0.1527. Similarly, EVAs of TBL went down in 2009 but went up in 2010 and had an average EVAs of GHS -0.06867.

CAL, HFC and TBL shareholders saw their value been destroyed as shareholders of EBG, ETI, GCB, SCB and SG-SSB on the other hand saw management creating value in excess of cost of capital with SCB leading the list for the study period. Stewart (1992) explained that EVA is an excess profit of a firm after charging cost of capital. EVA essentially measures company's actual rate of return as against the required rate of return. Positive EVA firms provide a higher return than shareholders can earn elsewhere. A company with a zero EVA just meet investor expectations. Negative EVA companies however destroy shareholders value.

Results of the Estimated Correlation Matrices

In order to determine the relationship between the dependent variables MVAs and SP and the independent variables (ROE, EPS, ROA and EVAs) and also between the independent variables themselves, the correlation matrix for all the variables was estimated.

Table 2 shows Pearson correlation coefficients for the dependent variable SP with the independent variables: ROE, EPS, ROA and EVAs.

Table 2: Results of the Estimated Correlation Matrix (1)

Variables	SP	ROE	EPS	ROA	EVAs
SP	1				
ROE	.484 (.005)*	1			
EPS	.519 (.000)*	.252 (.120)	1		
ROA	.459 (.001)*	.692 (.000)*	.120 (.281)	1	
EVAs	.841 (.000)*	.410 (.001)*	.399 (.013)	.590 (.001)*	1

***, ** and * indicate that coefficients are statistically significant at 1%, 5% and 10% levels respectively.

Source: Calculated from company's financial statement (2006 -2010)

The results from Table 2 indicate that there is a positive correlation between SP and ROE, EPS, ROA and EVAs hence an increase in the independent variable leads to a proportionate increase in the dependent variable. The correlation coefficient between SP and ROE is 0.484 this shows a moderate positive linear relation between SP and ROE that an increase in ROE may lead to an increase in SP. Similarly, the correlation coefficient between EPS and SP is 0.519 showing a moderate positive linear relation

between SP and EPS that an increase in ROE may lead to an increase in SP. Also, ROA is moderately related linearly to SP with a value of 0.459, hence an increase in ROA may lead to an increase in SP.

However, the correlation between EVAs and SP is a strong positive linear relation at 1 percent level of significance with correlation coefficient of 0.851. Hence an increase in EVAs will lead an increase in SP.

The results are consistent with the findings of Lehn and Makhija (1997) on the degree of correlation between different performance measures and stock market returns that EVA is the most highly correlated measure with stock returns. It also confirms the study by Worthington and West (2004) in Australian that stock returns is more closely associated with EVA than earnings and net cash flow.

However, the results do not support the claim by Kyriazis and Anastassis (2007) in their study of Greek firms concluded that relative information content tests reveal that net and operating income appear to be more valuable than EVA.

Table 3 shows Pearson correlation coefficients for the dependent variable MVAs with the independent variables: ROE, EPS, ROA and EVAs.

Table 3: Results of the Estimated Correlation Matrix (2)

Variables	MVAs	ROE	EPS	ROA	EVAs
MVAs	1				
ROE	.584 (.000)*	1			
EPS	.549 (.000)*	.252 (.120)	1		
ROA	.519 (.001)*	.692 (.000)*	.120 (.281)	1	
EVAs	.801 (.000)*	.410 (.001)*	.399 (.013)	.590 (.001)*	1

***, ** and * indicate that coefficients are statistically significant at 1%, 5% and 10% levels respectively.

Source: Calculated from company's financial statement (2006 -2010)

The results from Table 3 indicate that there is a positive correlation between MVAs and ROE, EPS, ROA and EVAs hence a change in the dependent variable leads to a proportionate change in the dependent variable. The correlation coefficient between MVAs and ROE is 0.584 and significant at 1 percent. This shows a moderate positive linear relation between MVAs and ROE such that an increase in ROE may lead to an increase in MVAs. Similarly, the correlation between EPS and MVAs is significant at 1 percent

with a coefficient of 0.549. Hence the relationship between MVAs and EPS is moderate that an increase in EPS may lead to an increase in MVAs.

Also, ROA is moderately related to MVAs at 1 percent significant level with a value of 0.519. An increase in ROA may lead to an increase in MVAs. The relation between EVAs and MVAs is strong and positive linear at 1 percent level of significance with correlation coefficient of 0.801. Hence an increase in EVAs will lead to an increase in MVAs.

The results are consistent with the study by Brigham and Ehrhardt (2002), that MVA is equal to the discounted present value of the whole EVA a company is expected to generate in the future, and therefore should be highly correlated with EVA. Also, the results confirm the study by Dastgir and Izadinia (2004) who studied the relationships between EVA, market value and market value added (MVA) measures in the Iran and concluded that there is a significant relationship between EVA, market value and market value added. It also agrees with Irala (2007) investigation of firm's performance measurement in India using financial information and concluded that EVA is a more suitable predictive measure of market value than other traditional accounting measures

However, the results are inconsistent with the findings of Fernandez (2003), who examined the correlation between EVA and MVA of 582 American companies for the period 1983-97. He concluded that for 296 firms in the sample the changes in the NOPAT had higher correlation with changes in MVA than the EVA, while for 210 sample firms the correlation between EVA and MVA was negative.

Relationship between SP, EVAs, ROA, ROE and EPS; Regression Results

Table 4: Results of GLS regression model (Gaussian) showing the relationship between SP, EVAs, ROA, ROE and EPS.

Variables	Coef.	Std.Err.	Z	P>z	95%Conf.Interval]	
Constant	-2.908	2.223	-1.310	0.191	-7.265	1.449
Return on Asset	-0.198	0.844	-0.230	0.815	-1.852	1.457
Return on Equity	0.198	0.121	1.640	0.102	-0.039	0.434
Economic Value Added	0.184	0.032	5.690	0.000*	0.121	0.248
Earnings Per Share	0.016	0.007	2.290	0.022**	0.002	0.030
R-sq: within	=	0.7653			Obs. per group: min =	8
Overall	=	0.7340			Max	= 8
avg	=	8.0			Number of groups	= 5
Wald chi2(5)	=	96.56			Prob. > chi2	= 0.00

Notes: Significant level at 5%; Dependent variable = SP; Predictors: (Constant), ROA, ROE, EVAs, EPS

***, ** and * indicate that coefficients are statistically significant at 1%, 5% and 10% levels respectively.

Source: Calculated from company's financial statement (2006 -2010)

From Table 4, the adjusted R^2 is 0.73. This implies that about 73 per cent of the variation in share price (SP) is accounted for in the variation of the independent variables. However, two variables EVAs and EPS were significant but ROA and ROE were not significant.

Economic Value Added per Share (EVAs) is positively related and statistically significant at 1 percent level of significance. With a coefficient of 0.184, a percentage change in EVAs would lead to about 18.4 percent change

in Share Price (SP) of the bank. This implies that the variation in SP can be explained by variation in EVAs.

This may be due to EVAs ability to drive share price and measure performance of companies. These results are consistent with the findings of Stewart (1995) in US that EVA derives stock prices better than other accounting based performance indicators. Also it agrees with Worthington and West (2004) study on the Australian market on evidences regarding the information content of EVA and concluded that stock returns are more closely associated with EVA than residual income, earnings and net cash flow.

However, the results are inconsistent with Kyriazis and Anastassis (2007) in their study of Greek firms that relative information content tests reveal that net and operating income appear to be more valuable than EVA. EVA components add only marginal information content as compared to accounting profit.

The coefficient of Earning per Share (EPS) is 0.016 and significant at 5percent hence a percentage change in EPS will result in a 1.6 percent change in SP, holding all other factors constant. This may be due to growth in earning per share and dividend of listed banks on the stock market as it may impact on investors' decision of investing on the stock market. This is in line with the findings of Dalborg (1999) that credible earning growth matches the fundamental driver growth since the growth can influence stock performance.

Relationship between MVAs, EVAs, ROA, ROE and EPS; Regression

Results

Table 5: Results of GLS regression model (Gaussian) showing the relationship between MVAs, EVAs, ROA, ROE and EPS.

Variables	Coef.	Std. Err.	Z	P>z	[95% Conf. Interval]	
Constant	-3.202589	2.250318	-1.42	0.155	-7.613131	1.207953
ROA	-.2570022	.8612025	-0.30	0.765	-1.944928	1.430924
ROE	.2051196	.124753	1.64	0.100***	-.0393918	.449631
EVAs	.1802084	.0346674	5.20	0.000*	.1122615	.2481553
EPS	.0239012	.0104779	2.28	0.023**	.0033648	.0444376
R-sq: within	=	0.75211		Number of obs.	=	40
Overall	=	0.7335		Max	=	8
Wald chi2(5)	=	96.35		Prob. > chi2	=	0.00

Notes: Dependent variable = MVAs; Predictors: (Constant), ROA, ROE, EVAs, EPS

***, ** and * indicate that coefficients are statistically significant at 1%, 5% and 10% levels respectively.

Source: Calculated from company's financial statement (2006 -2010)

From Table 5, the adjusted R^2 is 0.73. This implies that about 73 per cent of the variation in MVAs is accounted for in the variation of the independent variables. Three variables EVAs, ROE and EPS are significant but ROA is however not significant.

Economic Value Added (EVAs) is positively related and statistically significant at 1 percent level of significance. With a coefficient of 0.1802, 1 percent increase in EVAs would lead to about 18.02 % increase in MVAs of a bank. This implies that the variation in MVAs can be explained by the variation in EVAs.

This may be due to EVAs ability to measure shareholders' value as it incorporates cost of capital in its determination. This confirms Stewart (2001)

findings that calculating economic profit as oppose to accounting profit provides a better understanding as to whether assets are managed well enough to make profit as cost of capital employed sets EVA method apart from other popular measures of bank performance.

Also, this may be that MVA is the present value of all future EVA over the life of the firm. Hence there is a direct relationship between MVA and EVA such that an in increase in EVA may lead to an increase in MVA.

This result is consistent with existing study by Brigham and Ehrhardt (2002), that theoretically, EVA is much better than conventional measures in explaining the market value of a company. MVA is the present value of all future EVA over the life of the firm.

$$\text{MVA} = \text{PV} (\text{All future EVAs}). \quad (22)$$

Thus, managing the firm in ways that increase EVA will generally lead to a higher MVA. MVA is deemed to have the highest relationship with EVA rather than other financial measures. There are two observations of EVA and MVA stated by Brigham and Ehrhardt (2002). First, there is a direct relationship between MVA and EVA. Secondly, when EVAs or MVAs are used to evaluate managerial performance as part of an incentive compensation program, EVA is the measure that is typically used.

The results are also consistent with Stewart (1994), who investigated the performance of more than 1000 American Companies and he found that the changes in EVA explain 50% of the changes in MVA (the remaining 50% is explained by the future EVA). Further, the study agrees with Isa and Lo (2001) who found that EVA exhibited superior influence over a firm's market values added (MVA) as compared to the traditional accounting measure that is

EPS. They compared EVA and EPS in predicting MVA. They conducted a study on 100 of the largest non-financial companies listed on the Bursa Malaysia and it was aimed at examining the nature and characteristics of EVA in large Malaysian companies listed on the local stock exchange. They found a strong positive relation between EVA and MVA for value creators (companies with positive EVA values), while the relationship for value destroyers (companies with negative EVA values) were inconsistent. This study supports the fact that, the EVA qualifies to be adopted as a corporate performance and valuation measure in Malaysia. The results are consistent with the contention that EVA drives firm values.

The study is also in line with Dastgir and Izadinia (2004) who indicated that there are significant relationships between EVA, market value and market value added (MVA) measures, in the Iranian context. Again with Irala (2007) conclusion that EVA is a more suitable predictive measure of market value than other traditional accounting measures in India.

On the other hand, the results are inconsistent with Acheampong and Wetzstein (2001) in their study that propose an innovative type of analysis using parametric methods for estimating productive efficiency, focusing on the food industry. It is interesting to note that Acheampong and Wetzstein (2001) conclude that the analysis showed that there are no significant differences between traditional and value added measures of performance.

The coefficient of Earning per Share (EPS) is 0.0239 and is significant at 5 percent hence, 1 percent change in EPS will result in a 2.39 percent change in MVAs, holding all other factors constant. Similarly, the coefficient of ROE is 0.205, and significant at 10 percent, hence a percentage change in

return on equity would lead to 20.5 percent change in MVAs the banks under the study.

This may be due to increased earnings, earning growth and dividend declared by listed banks on the stock market as it may impact on investors' decision of investing on the stock market. This is in line with the findings of Dalborg (1999) that credible earning growth matches the fundamental driver growth since the growth can influence stock performance. The results is also consistent with Peixoto (2002), who found that the net income variable has a higher informational content than EVA and operating profits, when the dependent variables is the market value of the companies.

Also, the results agree with Shubita (2010) who examined the information content of EVA, residual income, and accounting earnings for Industrial companies in Jordan. The results show that net income outperforms EVA and residual income.

However, these results are inconsistent with Stewart (1994), who investigated the performance of more than 1000 American Companies and found that the changes in EVA explains more variations of MVA when compared to some traditional accounting measures such as EPS, ROE, ROA and net income.

Summary

The trend analysis of the listed bank in terms of SP, MVAs, EVAs, ROE, ROA and EPS shows a fairly stable performance over the five year period with positive averages. The dependent variables SP and MVAs were positively correlated with the independent variables EVAs, ROE, ROA, and

EPS with EVAs highly correlated. Two variables EVAs and EPS were significantly related to SP while three variables EVAs, ROE and EPS were significantly related to MVAs. EVAs was highly significant to both SP and MVAs. Also, EVAs was higher in explaining variation in SP but ROE was better in explaining variation in MVAs.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Introduction

Creating value for the shareholder is now widely accepted as a dominant corporate objective. Managing to create sustainable shareholder value is currently recognised by academics and practitioners as a major objective in the corporate world. Among the modern tools, Economic Value Added (EVA) has received attention and recognition in accounting and financial areas as a vital tool to measure corporate performance (Fiordelisi & Molyneux, 2006). EVA is a value based financial performance measure, an investment decision tool and a performance measure reflecting the absolute amount of shareholder value created (Stewart, 2001).

A number of empirical studies have been undertaken on the information content of firm's performance measurement methods on the stock market. There exist one group who support that information content of the economic value added (EVA) performance methods has superior explanations to the variation the value added for shareholders on the stock market. Contrary to the first group, others do support that both the innovative (EVA) and the traditional accounting ratios (ROA, ROE, EPS, etc) methods of performance measurement do explain the variation of the stock market performance.

Summary

The general objective of the study was to analyze shareholder economic value addition of selected listed Banks in Ghana (2006-2010).

The specific objectives were to:

1. Examine estimated EVA and accounting performance ratios (ROA, ROE and EPS) of selected listed Banks in Ghana.
2. Identify the correlation between SP and EVA, accounting performance ratios (ROA, ROE and EPS) of selected listed Banks in Ghana.
3. Identify the correlation between MVA and EVA, accounting performance ratios (ROA, ROE and EPS) of selected listed Banks in Ghana.
4. Analyze the relationship between SP and EVA, accounting performance ratios (ROA, ROE and EPS) of selected listed Banks in Ghana.
5. Analyze the relationship between MVA and EVA, accounting performance ratios (ROA, ROE and EPS) of selected listed Banks in Ghana.

The study focuses on applying both the traditional accounting method and the innovation Economic Value Added (EVA) to establish the one which provide superior explanation to the value created for the shareholder on the stock market. This involves five-year (2006-2010) data from each bank including their financial statements and stock market prices movement data for this empirical study. The study employed non-probability sampling technique, more specifically, purposive sampling technique. Eight listed banks were selected for the study. These banks included CAL bank Ghana Ltd, Ecobank

Ghana Ltd, Ecobank Transnational Incorporated, Ghana Commercial bank Ltd, HFC Ghana Ltd, Standard Chartered Bank Ghana Ltd, SG-SSB Ghana Ltd and Trust Bank.

The study used secondary data mostly financial statements and company profiles obtained from the selected companies, their registrars or website. Stock exchange data were sought from both the internet and available published Ghana Stock Exchange handbooks. The data was organised and subsequently entered in STATA and EXCEL software to facilitate data description and analysis. The study employed descriptive design using both quantitative and qualitative analysis. Pearson's Coefficient of Correlation and Generalized Least Squares (GLS) regression technique were used to analysis the data.

The major finds of the study were:

The first objective focused on examining estimated EVAs and accounting ratios (ROA, ROE and EPS) of selected listed Banks in Ghana. The main finds under this objective were:

1. CAL bank, HFC and TBL had negative average EVAs thereby destroying shareholders value whilst GCB, EBG, ETI, SG-SSB and SCB had average positive EVAs as management creating value in excess of cost of capital with SCB leading the list for the study period.
2. The banking industry average of ROA for the five-year period was 3.38% however, GCB, TBL, SG-SSB and SCB with an average return on asset of 3.63%, 3.91%, 4.06% and 5.7% respectively performed above the industrial average. On the other hand, ETI, HFC, CAL and

EBG with an average ROA of 2.18%, 2.4%, 2.31% and 3.12% respectively were below the industrial average.

3. The study shows that EPS for shareholders of the banks has been uneven over the five year period. However, SCB shareholders had the better EPS of 2.415 Ghana Cedi for the period followed by TBL, ETI, GCB, SG-SSB, CAL and HFC with 0.765, 0.109, 0.077, 0.040 and 0.034 Ghana Cedi respectively.
4. The average banking industry ROE for the five-year period was 21.85%. SCB, TBL and EBG with ROE of 37.3%, 30.4%, and 29.9% respectively performed above the industrial average. On the other hand CAL, GCB, HFC and ETI had an average of 17.8%, 17.54%, 15.35% and 12.85% respectively performed below the industrial average within the study period.

The results show that for the equity employed by management within the five-year period, SCB had a higher average return followed by TBL, EBG, CAL, GCB, HFC and ETI for the five-year period under study.

The second objective focused on identifying the correlation between SP and EVA, accounting ratios (ROA, ROE and EPS) of listed Banks in Ghana. The main finds under this objective were:

1. There is positive correlation between SP and EVA, accounting performance ratios (ROA, ROE and EPS) of selected listed Banks in Ghana.

2. The correlation coefficient of EVA, ROA, ROE and EPS with SP were 0.841, 0.459, 0.484 and 0.519 respectively at 1 % significant level.
3. EVA was highly correlated with SP than the accounting ratios.

The third objective focused on identifying the correlation between MVA and EVA, accounting ratios (ROA, ROE and EPS) of listed Banks in Ghana. The main finds under this objective were:

1. There is positive correlation between MVA and EVA, accounting performance ratios (ROA, ROE and EPS) of selected listed Banks in Ghana.
2. The correlation coefficient of EVA, ROA, ROE and EPS with MVA were 0.801, 0.519, 0.584 and 0.549 respectively at 1 % significant level.
3. EVAs was highly correlated with MVA than the accounting ratios (ROA, ROE and EPS) of listed Banks in Ghana

The fourth objective focused on the relationship between SP and EVA, accounting ratios (ROA, ROE and EPS) of selected listed Banks in Ghana.

The main finds under this objective were:

1. The adjusted R^2 was 0.73 which explains that 73 per cent of the variation in share price (SP) is accounted for in the variation of the independent variables.
2. Two variables EVAs and EPS were significant but ROA and ROE were however not significant.

3. EVAs was positively related and statistically significant at 1 percent level of significance. With a coefficient of 0.184, 1% change in EVAs would lead to about 18.4 % change in Share Price (SP) of the bank.
4. The coefficient of Earning per Share (EPS) was 0.016 and significant at 5%. Hence 1% change in EPS will result in a 1.6% change in SP, holding all other factors constant.
5. There is statistical difference in the significance level of relationship between SP and EVAs, ROA, ROE and EPS of listed Banks in Ghana.

The fifth objective focused on the relationship between MVA and EVA, accounting ratios (ROA, ROE and EPS) of selected listed Banks in Ghana.

The main finds under this objective were:

1. The adjusted R^2 is 0.73 which explains that 73 per cent of the variation in MVAs is accounted for in the variation of the independent variables.
2. Three variables EVAs, ROE and EPS were significant but ROA is however not significant.
3. Economic Value Added (EVAs) was positively related and statistically significant at 1 percent level of significance. With a coefficient of 0.1802, 1% increase in EVAs would lead to about 18.02 % increase in MVAs of a bank.
4. The coefficient of Earning per Share (EPS) was 0.0239 and significant at 5%, hence 1% change in EPS will result in a 2.39% change in MVAs, holding all other factors constant.

5. The coefficient of ROE was 0.205, and significant at 10%, hence percentage change in return on equity would lead to 20.5 percent change in MVAs of the banks under the study.

Conclusions

EVA's correlates better with Share Price (SP) and MVA than accounting ratios (ROA, ROE and EPS) although all the variables were positively correlated. Concerning relationship with SP, EVA's and EPS were significant however, EVA's was highly significant and better than EPS. In terms of relationship with MVAs, EVA's, ROE and EPS were significant however, EVA's was most significant but ROE was better in explaining variation in MVAs than EVA.

The study on selected listed banks in Ghana provided mixed results on which performance method strongly captures explanatory power of the shareholders value creation on the stock market. EVA's was most significant in correlation with SP and MVAs and better explains variation in SP however, ROE better explains variation in MVAs than EVA. Other researchers such as: Acheampong and Wetzstein (2001), Chen and Dodd (1997) and Lehn and Makhija (1997) establish similar mixed conclusions

Recommendations

Based on the findings and conclusions drawn from the study, it is recommended that the following be put in place by Board of Directors/Management to ensure that shareholder value creation is achieved:

1. Consider the use of EVA as a performance measure.
2. Look for ways to increase net operating profit after tax without increasing the amount of capital invested in the banks.
3. Undertake investment projects which are expected to generate returns in excess of the company's cost of capital.

Suggestions for future research

The findings of the current research provide the avenue for future research in this area to establish clearly the method of performance measurements that undoubtedly have superior information content to shareholders economic value creation.

When the study was conducted, a lot of issues came up which would be worth investigating further. Below is a list of suggested topics for future research, which the researcher thinks should be considered by future researchers:

1. Conducting similar study for a period of ten years or more.
2. Conducting similar study on all companies on the stock market.
3. Conducting similar study on companies on the stock market using other accounting ratios.

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Appendix A: Financial summary CAL bank (2006-2010)

	2010	2009	2008	2007	2006
	GH¢ 000	GH¢ 000	GH¢ 000	GH¢ 000	¢m
Net Interest Income	36,835	22,635	16,431	12,039	94,447
Com, fees and other op. income	9,300	16,993	18,503	11,396	87,639
	27,553	39,628	34,934	23,435	182,086
Profit before tax	11,660	10,515	11,499	7,116	68,023
Taxation	(2,850)	(2,212)	(2,431)	(1,912)	(21,010)
Profit after tax	8,810	8,303	9,068	5,204	47,013
SHAREHOLDERS' FUNDS	76,519	58,424	37,428	31,107	214,385
ASSET	499,751	452,812	338,902	235,727	1,570,084
NET ASSETS	76,519	58,424	37,428	31,107	21,385

Appendix B: Financial summary ECOBANK Ghana Limited (2006-2010)

	2010	2009	2008	2007	2006
	US\$' 000	US\$' 000	US\$' 000	US\$' 000	US\$' 000
Interest Income		131,379	72,755	51,779	436,874
Commission, fees and other income		79,483	62,147	28,693	174,962
		210,862	134,902	80,472	631,836
Profit before tax		71,048	43,892	30,179	227,095
Taxation		17,195	10,312	7,836	61,793
Profit after tax	64,600	53,853	33,850	22,349	165,302
SHAREHOLDERS' FUNDS		205,413	84,738	64,666	424,809
CURRENT ASSETS		1,344,178	895,314	851,817	4,211,513
LESS CURRENT LIABILITIES		1,098,054	769,391	545,462	3,726,546
		246,124	125,923	106,355	484,967
NET ASSTS		205,413	84,738	64,666	424,809

Appendix C: Financial summary Ecobank Transnational Incorporated (2006-2010)

	2010	2009	2008	2007	2006
	US\$' 000	US\$' 000	US\$' 000	US\$' 000	US\$' 000
Net Interest Income	474,771	459,027	390,401	278,077	181,403
Net Fees & Commission Income	286,869	240,206	266,138	182,426	107,921
Operating Expense	(629,180)	699,233 (632,594)	656,539 (550,812)	460,503 (334,269)	289,324 (206,074)
Other Income/Expenses (Net)		34,427	56,658	64,336	46,049
Profit before tax	169,026	101,066	162,385	190,570	129,299
Taxation		36,466	51,245	51,634	42,934
Profit after tax	131,819	64,600	111,140	138,934	86,365
Total Assets	10,466,871	9,006,523	8,306,186	6,550,224	3,503,739
Total Liabilities	9,174,261	7,770,958	7,148,564	5,898,464	3,021,424
Total Equity	1,292,610	1,235,565	1,157,622	651,760	482,315
Total liabilities & Equity	10,466,871	9,006,523	8,306,186	6,550,224	3,503,739

Appendix D: Financial summary Ghana Commercial bank Ltd. (2006-2010)

	2010	2009	2008	2007	2006
	GHC	GHC	GHC	GHC	¢m
Net Interest Income	284,288,277	131,707,28	132,052,693	90,104,999	874,191
Commission, fees and other opt. Income		71,329,822	54,993,320	57,108,126	340,277
Profit before tax	91,312,559	20,640,271	49,713,392	46,961,304	392,147
Taxation	(35,210,822)	(1,785,683)	(12,119,876)	(14,082,039)	(119,393)
Profit after tax	56,101,737	18,854,588	37,593,516	32,879,265	260,147
SHAREHOLDERS' FUNDS	250,418,215	203,442,842	207,749,124	176,865,915	919,004
CURRENT ASSETS	2,112,821,536	1,873,010,927	1,609,134,710	1,124,846,905	7,560,189
LESS CURRENT LIABILITIES	1,862,403,321	1,719,223,407			
		153,787,520	166,663,486	146,993,435	687,177
Fixed Assets		49,655,322	41,085,638	29,872,480	231,827
NET ASSETS		203,442,842	207,749,124	176,865,915	919,004

Appendix E: Financial summary HFC bank (Ghana) Ltd (2006-2010)

	2010	2009	2008	2007	2006
	GH¢	GH¢	GH¢	GH¢	¢m
Interest Income	54,417,742	49,204,160	35,680,024	23,938,904	127,079,872
Interest Expense	21,590,927	27,455,873	17,854,263	10,963,336	61,465,626
		21,748,287	17,825,761	12,975,568	65,584,246
Commissions, fees & other opt.inc		6,831,990	4,974,069	974,260	21,380,433
Operating Profit		3,703,177	4,288,595	2,411,279	16,665,339
Other Income		3,340,623	4,029,401	449,975	1,752,915
Adjustment other Income		3,340,623	4,029,401	449,975	1,752,915
Profit before Tax	13,399,535	7,043,800	8,317,996	2,861,254	18,418,254
Taxation		1,116,589	2,303,445	860,328	4,724,251
National Reconstruction Levy/	643,405	(178,903)	66,052	122,015	882,456
Profit after Tax	8636178	5,748,308	6,080,603	2,122,941	12,811,547
Total Assets	364,492,660	261,101,557	378,614,305	162,794,775	1,081,169,585
Total Liabilities	292,488,906	227,851,363	350,160,755	149,257,796	965,809,057
Total liabilities and shareholders funds	261,101,557	261,100,861	378,614,305	162,794,775	1,081,169,585

Appendix F: Financial summary SG-SSB Ltd (2006-2010)

	2010	2009	2008	2007	2006
	GH¢	GH¢	GH¢	GH¢	¢m
Net Interest Income	65,540,873	51,464,776	40,531,297	34,610,928	315,945
Commissions, fees & other opt. income	22,849,617	34,117,899	30,821,060	23,212,843	187,316
Profit before tax	26828466	26,909,570	21,867,388	15,576,794	143,640
Taxation	6116721	6,943,762	6,345,691	3,987,678	44,200
National Stabilization Levy	1341423	672,739	-		
Profit after tax	21,049,836	19,293,069	15,521,697	11,589,116	99,440
CURRENT ASSETS		74,081,267	46,953,490	39,569,399	313,771
LESS CURRENT LIABILITIES					
		36,112,159	22,717,837	18,855,231	19,491
NET ASSETS	116,244,343	110,193,426	69,671,327	58,424,630	508,262

Appendix G: Financial summary Standard Chartered bank Ghana Ltd (2006-2010)

	2010	2009	2008	2007	2006
	GH¢	GH¢	GH¢	GH¢	¢m
Net Interest Income	152,941	119,419	76,268	64,139	543,080
Commissions, fees & other opt. income	65,277	63,081	40,847	28,599	302,515
		182,500	117,115	92,738	845,595
Total operating expenses & charge for doubtful debts		(98,786)	(73,275)	(49,564)	(410,277)
Profit before tax	101,513	83,714	43,840	43,174	435,318
Taxation	24,229	24,124	10,653	10,136	158,497
Profit after tax	72,208	57,497	33,187	33,038	276,821
SHAREHOLDERS' FUNDS		98,447	76,330	75,263	520,708
CURRENT ASSET		1,388,623	971,956	762,081	6,873,614
LESS CURRENT LIABILITIES	1,471,901	1,244,635	894,585	682,427	5,908,250
NET ASSETS		159,578	89,461	88,394	712,291

Appendix H: Financial summary Trust bank Ltd (THE GAMBIA) (2006-2010)

	2010	2009	2008	2007	2006
	GH¢	GH¢	GH¢	GH¢	¢m
Net Interest Income	182,204	205,330	166,901	150,946	154,224
Commissions, fees & other opt. income	91,269	89,217	93,098	117,085	119,422
Foreign Exchange Revenue	71,917	54,303	69,761	-60,748	71,998
		348,850	329,760	207,283	345,644
Total operating expenses & charge for Personnel Cost		68501	52770	47996	36923
General and Administrative Coast		105205	91062	68576	73910
Depreciation and Amortization		35214	32562	30791	26996
Provision for credit loses		31629	5997	-2338	29147
Total operating expenses		240,549	182,391	145,025	166,976
Profit before tax & Extraordinary Item	104,681	108,301	147,369	62,258	178,668
Taxation	34,827	43,353	47,543	21,790	622,634
Total Assets	3,415,510	2,939,358	2,759,131	2,650,120	2,323,764
Total Liabilities	3,124,520	2,658,222	2,488,943	2,443,932	2,074,225
NET ASSETS	290,990	281,136	270,188	206,188	249,539

Appendix I: Hausman test output

---- Coefficients ----

	(b)	(B)	(b-B)	sqrt(diag(V_bV_B))
	fixed	random	Difference	S.E.
ROA	0.238919900	0.177231700	0.061688200	0.131012700
ROE	0.170306500	0.153096500	0.017210000	0.033831300
EVA _s	0.000000002	0.000000004	-0.000000001	0.000000002
EPS	0.010002000	0.010461800	-0.000459800	0.001885100

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$$\text{chi2}(3) = (b-B)'[(V_b-V_B)^{-1}](b-B) = 0.512$$

$$\text{Prob}>\text{chi2} = 0.8361$$
