

**BOND MARKET DEVELOPMENT IN EMERGING
ECONOMIES: A CASE STUDY OF THE BOND EXCHANGE OF
SOUTH AFRICA (BESA)**

A thesis submitted in partial fulfilment of the
requirements for the degree of

**MASTERS IN COMMERCE
(Financial Markets)**

of

RHODES UNIVERSITY

by

TAGARA HOVE

February 2008

ABSTRACT

This study looks at the development of bond markets in emerging economies and focuses on the development of the Bond Exchange of South Africa (BESA). It explores the history, structure, performance and key issues related to the development of this market within the broader context of domestic, regional and global bond market development.

BESA's experience provides valuable lessons for other emerging market economies also seeking to build bond markets. The sophistication of the local bond market is not enough to make it appealing to foreign borrowers. Market development demands an enabling market infrastructure and a background of macroeconomic stability, diversified market participants, deregulation of capital flows and an appropriate regulatory and supervisory environment.

TABLE OF CONTENTS

CHAPTER ONE

INTRODUCTION

1.1. Background.....	9
1.2. Why the case is worth studying.....	10
1.3. Aims and objectives.....	11
1.4. Summary of the chapters.....	11

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction.....	13
2.2. Bond markets in emerging markets.....	13
2.2.1. Introduction.....	13
2.2.2. Rationale for developing a domestic bond market.....	14
2.2.2.1. Introduction.....	14
2.2.2.2. An alternative source of domestic debt finance....	15
2.2.2.3. Lower cost of capital.....	16
2.2.2.4. Broadening of capital markets.....	16
2.2.2.5. Efficient pricing of credit risks.....	17
2.2.2.6. Promotion of financial stability.....	18
2.2.3. Critical success factors.....	20
2.2.3.1. Introduction.....	20
2.2.3.2. The political situation.....	22
2.2.3.3. The macroeconomic situation.....	22
2.2.3.4. Supervision laws and regulation.....	23
2.3. Other bond markets.....	25
2.3.1. Introduction.....	25
2.3.2. Asia.....	26
2.3.3. Europe.....	28

2.3.4. The United States.....	30
2.3.5. African bond markets.....	32

CHAPTER THREE

THE BOND EXCHANGE OF SOUTH AFRICA (BESA)

3.1. Introduction.....	35
3.2. The rationale for using BESA as a case study.....	35
3.3. History and development of BESA.....	36
3.3.1. Introduction.....	36
3.3.2. The initial stages: An informal market.....	36
3.3.3. Significant structural improvements.....	37
3.3.4. A formal and sophisticated market.....	38
3.3.5. Recent developments.....	40
3.4. Market structure and organisation.....	41
3.5. Size and performance of the market.....	43
3.6. Listing	48
3.7. Trading and settlement.....	49
3.8. Regulation of BESA.....	49
3.9. Summary.....	50

CHAPTER FOUR

ANALYSIS AND INTERPRETATION

4.1. Introduction.....	51
4.2. BESA analysis and interpretation.....	53
4.2.1 Introduction.....	53
4.2.2 Stable macroeconomic policies.....	54
4.2.3 Stable political environment.....	55
4.2.4 Robust legal environment.....	55
4.2.5 Appropriate regulatory and supervisory environment.....	56
4.2.6 Market infrastructure.....	56

4.2.7 Diversified market participants.....	57
4.3. Conclusion.....	60

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS FOR FURTHER RESEARCH

5.1. Summary of conclusions.....	61
5.2. Lessons and challenges for the rest of Africa.....	63
5.3. Recommendations for further research.....	64
REFERENCES.....	65

LIST OF FIGURES

CHAPTER 3

Figure 1:	BESA trade reporting and settlement structure.....	37
Figure 2:	Market structure.....	40
Figure 3:	BESA market nominal turnover 1989 – 2006.....	42
Figure 4:	BESA market trades by sector.....	42
Figure 5:	BESA year-end market capitalisation and total.....	43
	nominal values of issue	
Figure 6:	Growth in corporate listings.....	44
Figure 7:	Nominal listed: by sector.....	44

CHAPTER 4

Figure 8:	Framework for assessing municipal bond market.....	50
	development	
Figure 9:	Framework for assessing BESA's success.....	51
Figure 10:	Bonds in issue on BESA.....	56

ACKNOWLEDGEMENTS

I wish to thank my supervisor, Professor Pierre Faure for his constant supervision, intellectual support and continual encouragement through my studies. This thesis was made possible by his patience and persistence.

I would also like to thank my family for their love and support.

Finally, I would like to express my appreciation for the advice and information from Allen Jones, Head of Listings at BESA.

DECLARATION

I certify that this thesis has not been submitted for a degree at any other university and that it is my original work except for where referenced within the document.

Signed.....

Date: 15 February 2008

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

For many emerging-market countries, financial-sector and capital market development starts with the development of a government bond market. This is a logical path, not only because governments are usually the largest domestic borrowers and have one of the best domestic credit ratings, but also because governments, by their actions or inaction, affect the scope and potential for market development throughout the economy.

The past decade has seen significant changes in the political, economic and social landscape of the developing economies of Africa. The financial and economic events during 1997 – 1998 (Asian financial crisis) have highlighted the vulnerabilities associated with an overdependence on foreign capital (Fabella and Madhur, 2003: 6).

Latter (1999: 79) adds that “It is important to consider methods of retaining domestic savings within countries in order to satisfy funding needs, which have in the past relied on foreign financing. One way of raising the efficiency and attractiveness of domestic financial intermediation is through the development of domestic debt markets.”

In the last decade or so, major structural changes have taken place within the organisational and regulatory framework of capital markets in many African countries. These countries will now have to re-think their strategies in order to tap into new and emerging sources of funding such as bond markets (Brownridge and Harvey, 1998: 1).

1.2 WHY THE CASE IS WORTH STUDYING

In most African economies, the domestic bond markets, where they exist, are generally under-developed in both breadth and depth compared to the banking system and the equity market. Because of the experience of the Asian crisis, many studies have made a case for developing the domestic bond market as an alternative source of debt financing in cash strapped Africa where general shortcomings are observed in terms of the variety of debt financing (Economic Commission for Africa, 1999: 4).

The rationale for developing a domestic bond market is that, firstly, it is an alternative source for debt financing. This decreases the over-reliance on bank lending for debt financing and minimises exposure of the economy to the risk of a failure in the banking system. Secondly, these markets reduce financing costs through disintermediation. Thirdly, an active and efficient bond market would broaden capital markets by offering investors opportunities to invest in a wider range of assets. A fourth consideration is that the existence of a well-functioning bond market can lead to the efficient pricing of credit risk, since expectations of all bond market participants are incorporated into bond prices. Lastly, a developed bond market supports the economy in meeting its financing needs during periods of rapid economic growth (International Organisation of Securities Commissions, 2002: 3).

Domestic bond market debt financing is required for many projects, including rehabilitation of the necessary infrastructural facilities in electricity generation, transmission and distribution, the fuel energy sector, road and rail transportation, telecommunications, portable water supply, socio-economic infrastructural facilities like schools, and vocational training centres, etc (SECC, 2000: 12).

1.3 AIMS AND OBJECTIVES

The goal is to use the past experiences and developments of BESA as a case study and establish what key success factors make BESA successful.

The data will be sourced from the International Monetary Fund, the World Bank, central banks, the Emerging Markets Committee (EMC) of the International Organisation of Securities Commissions (IOSCO), BESA and various other bond market models.

Most research in the past on bond market development used the Asian bond markets as case studies, but this study will deviate from previous studies and use BESA as the case study. This decision was taken based on the fact that BESA is more applicable to the needs of sub-Saharan Africa than most Asian and Latin American bond markets.

The case study will narrow the success factors to those that are key, which are building market participation, securing government commitment (Harwood, 2000: 10), ensuring macrostability, eliminating tax disadvantages and encouraging market participation (Hong Kong Monetary Authority, 1999: 3). The sequencing, interplay and fine-tuning of these factors will be tested in the case study and backed up by critical analysis.

1.4 SUMMARY OF THE CHAPTERS

Chapter 3 reviews relevant literature on BESA and establishes the foundation of the dissertation. The case study requires firstly the exploration of the past experiences, roles and developments of BESA and then the issues concerning the development of domestic bond markets as illustrated in Chapter 2.

The results obtained from the research shall be interpreted and analysed in chapter 4.

A conclusion of the study shall be drawn by summarising the findings and important points of the study. This, together with recommendations, shall be made in chapter 5, based on the findings of the research presented in chapter 4. Chapter 5 will also discuss the significance of this study and recommend fields for future research.

CHAPTER TWO

BOND MARKETS IN EMERGING MARKETS

2.1 INTRODUCTION

This chapter conducts a review of the literature on domestic bond market development in emerging markets. From this review broad categories have been determined which will help easily identify the critical success factors that are key contributors to domestic bond market development.

Information has been gathered by reviewing government reports, studies by consultants, research by investment analysts, reports by the International Monetary Fund, the World Bank, central banks, the Emerging Markets Committee (EMC) of the International Organisation of Securities Commissions (IOSCO), BESA and various other bond market models.

2.2 THE DEVELOPMENT OF BOND MARKETS IN EMERGING MARKETS

2.2.1 Introduction

This section examines issues concerning the development of domestic bond markets in emerging markets as well as what needs to be in place to make a successful and efficient bond market. It was driven by several considerations. Firstly, the financial and economic events during 1997–1998 drew attention to the over-dependence of several emerging market economies on their respective domestic banking systems as a source of financing. In many cases, this implied the need for broader and deeper capital markets, in particular the further development of their domestic bond markets (International Organisation of Securities Commissions, 2002: 3).

A second consideration is that information on bond markets in emerging markets is not as readily available as information on other market segments, notably the equity market. There is, therefore, also substantial scope for compiling fundamental information about the current state of bond market development across these markets. In the last decade or so, major structural changes have taken place in the organizational and regulatory framework of domestic bond markets in many emerging markets. This section seeks to collate this information and provide a brief review with regard to the overall development of domestic bond markets in these markets.

A third and related consideration is that there is substantial scope for further research on less developed bond markets, especially in terms of issues raised by the experience of emerging markets themselves. Among other things, the section will identify current impediments in respective emerging markets and discuss their implications on bond market development.

Thus, the subsections of this section are:

- rationale for developing a domestic bond market
- critical success factors
- other bond markets.

2.2.2 Rationale for developing a domestic bond market

2.2.2.1 Introduction

Since the Asian financial crisis of 1997-1998, attention has increasingly focused on the relative roles of the banking sector and of the capital market in developing economies. In many instances the domestic bond market, where it exists, is generally under-developed in both breadth and depth compared to the banking system and the equity market. In light of the experience of the crisis, many researchers have made a case for developing the domestic bond market as an alternative source of debt financing not only in the crisis-hit

economies but for all emerging markets where general shortcomings are observed in terms of the variety of debt financing (International Organisation of Securities Commissions, 2002: 2).

The following is a summary of some of the main arguments that have been put forward:

- an alternative source of domestic debt finance
- lower cost of capital
- broadening of capital markets
- efficient pricing of credit risks
- promotion of financial stability.

2.2.2.2 An alternative source of domestic debt finance

Witherell (2003) argued that bond markets reduce the over-reliance on bank lending for debt financing and that these markets also minimise the exposure of the economy to the risk of a failure in the banking system. This is illustrated by the comment by the Namibian Economic Policy Research Unit (Grandes and Pinaud, 2004: 6):

“The implication is that a banking crisis can therefore affect economic activity suddenly and adversely because companies would find themselves credit-constrained and be forced to abandon investment spending, culminating in a reduction of aggregate demand through the multiplier effect.”

Harwood (2000) also argued that the existence of a successful and efficient bond market enables companies to have access to an alternative source of raising debt capital if banks were unable to do so; thus developing an efficient bond market can help the resolution of a banking crisis by allowing the banking system to recapitalise its balance sheets through securitisation (i.e. the issuance of bonds backed by non-performing loans).

Kim (2000) adds that bond market financing helps to diversify infrastructure financing. Before the Asian crisis such financing has been overly dependent on fiscal budget and banking institutions, involving a serious term mismatch between their short-term borrowing and long-term investments, inflexibility in financing methods and high risks at the time when banks are reluctant to lend.

2.2.2.3 Lower cost of capital

Companies can incur greater financing costs through bank loans than through bond financing. Banks charge administrative costs that arise from arranging loans, in processing information about borrowers and monitoring them.

IOSCO (2002) amongst others identified that corporate bond markets help corporations reduce their financing costs in two ways. Firstly, it allows corporations to borrow directly from investors through bond issuance, bypassing the major intermediary role of a commercial bank (a process known as disintermediation). Although corporations still go through underwriters, brokers and dealers to raise debt finance, competition among these intermediaries is more intense compared to that between commercial banks, pushing down their intermediation costs.

As a result, borrowing firms enjoy a lower cost of debt financing. Corporate bond markets can help borrowers reduce their financing costs in two ways. Firstly, they facilitate bank disintermediation by allowing direct access to investors, thus removing the “middleman” and related costs. Secondly, by issuing corporate bonds, firms may tailor their asset and liability profiles to reduce the risk of maturity and currency mismatch on their balance sheets, thus reducing the overall cost of capital.

2.2.2.4 Broadening of capital markets

Growth in debt markets is a positive development for the capital markets and the economy at large. “It helps to diversify the capital markets, reducing excessive dependence on banks and vulnerabilities within the banking

system, while providing funding to large corporations looking for long term and diverse financing options. Financial engineering of different types has facilitated the development of innovative debt products which have supplemented and complemented bank financing” (Akhtar, 2007: 2). In this regard IOSCO (2002) adds that:

“Without a well-functioning bond market, savers face a relatively limited array of asset choices and as a result they are likely to hold substitute assets such as bank deposits and, to a lesser extent, equity. In extreme circumstances, savers may also acquire more non-financial assets such as property that ultimately reduce the supply of savings that can be mobilized for productive investment. In the long run, this could result in a lower level of economic welfare.”

A well-functioning bond market provides investors with freedom to invest across a wider range of instruments including bonds issued by governments, corporations and securitized obligations such as mortgage or other asset backed securities. The wide range of instruments allows for investors to make more optimal asset allocation decisions. “In addition, the presence of a viable bond market allows financial institutions to better manage the maturity structure of their balance sheets, especially those with long-term liabilities such as life insurance companies and pension funds, which may otherwise be forced to charge their policyholders a higher premium to offset risks arising from maturity mismatches” IOSCO (2002).

2.2.2.5 Efficient pricing of credit risks

There are several good reasons for developing bond markets. The most important reason is to create cost-effective and competitive capital markets by generating market interest rates that reflect the opportunity cost of capital at each maturity. This is essential for efficient investment and financing decisions. Herring and Chatusripitak (2000) substantiated this by stating that:

“Without a well-functioning bond market, firms will lack a clear measure of the opportunity cost of funds. From society’s perspective this may lead to overinvestment if the firm’s internal rate is too low or underinvestment if the firm’s internal rate is too high. Evidence from the late 1990s in several dynamic Asian economies suggests that the internal discount rate may have often been too low because returns on investment fell markedly.”

IOSCO (2002) suggests that interest rates generated by banks are not always competitively determined and therefore will not reflect the true opportunity cost of funds. This is because banks could collude to either fix or set rates and banks might not be able to assess credit risks as well as bond markets.

RBI (2007) concludes that “the existence of a well-functioning bond market can lead to the efficient pricing of credit risk since expectations of all bond market participants are incorporated into bond prices.” In other words, by promoting the use of price signals, a developed bond market ensures that firms are guided by an accurate cost of capital in making investment decisions, contributing to an efficient allocation of capital in the economy.

2.2.2.6 Promotion of financial stability

One of the main reasons for bond market development is to provide an alternative source of funds to both equity and bank financing. This alternate source of funding enhances the stability of financial markets and the efficient allocation of credit. The effect of bond market development on financial stability is best illustrated by the following example: after the Asian crisis the weak banking sector provided an impetus to the development of bond markets in most emerging markets. By diversifying their source of funds, companies can adjust their borrowing between the banks and debt markets (Hameed, 2007: 2).

This view is highlighted by Hameed (2007: 3) who states:

“The complementary roles of corporate bond markets and banks can ensure financial stability even if one channel of financial intermediation is under stress. Lack of developed bond markets is often cited as a reason for severity of the Asian crisis. Well functioning bond markets may have been able to pick up the slack from the banking sector and provide much needed funds to the private sector as it did in the United States in 1990.”

Bond markets also enhance financial stability by mitigating rollover risk and interest rate risk for issuers. This is because if rates rise, corporates with bank loans will pay higher debt servicing costs at rollover and may be unable to borrow in case of a credit crunch. In contrast, firms which issue longer term securities have access to capital at more predictable rates (Hameed, 2007: 3).

IOSCO (2002) added that:

“In the absence of a corporate bond market, a significant proportion of debt funding for corporations would come from the banking sector. By extending loans to corporations, however, banking institutions assume a considerable amount of risk, mainly due to the maturity mismatch between liquid short-term assets (i.e. deposits, which can be withdrawn on demand) and relatively illiquid long-term assets (i.e. loans). Banks cannot transfer credit risk to depositors and this difficulty is further compounded by the highly idiosyncratic and asymmetric information banks possess about borrowers.”

Herring and Chatusripitak (2000: 38) concluded that in emerging markets, because a few banks account for the bulk of lending activity, there is a concentration of credit risk within the banking sector, and this leads to an increased level of systemic risk in an economy that heavily relies on bank loan financing.

In summary, the existence of a well-functioning bond market ensures the diversification and efficient distribution of risks within the financial and capital markets.

2.2.3 Critical success factors

2.2.3.1 Introduction

The development of bond markets must be seen as a continuous process in which continued macroeconomic and political stability are essential to building an efficient market and establishing the credibility of the government as an issuer of debt securities.

There are a number of critical success factors for establishing an efficient bond market:

- a stable political environment
- sound macroeconomic policies
- robust legal, tax and regulatory environment
- effective market infrastructure
- diversified intermediaries.

In markets where the abovementioned factors are not present and/or very weak, they will have to introduce their market in stages, starting with adopting and implementing a stable and credible macroeconomic policy framework, reforming and liberalising the financial sector and ensuring the proper pace of liberalization in different areas (for example financial sector versus capital account measures) (World Bank, 2000: 19).

Harwood (2000: 2) adds that:

“Market participants need to evaluate the critical success factors to determine which ones constrain their market’s growth and how to deal with them. Market development will be accelerated if regulators who are interested in the market’s development work closely with market participants to identify problems and solutions and with other regulators to persuade them to address problems under their control.”

Even though there is no one size fits all framework to build a market, emerging markets should try to learn from each other’s experiences for guidance on how to progress from “emerging” to “emerged” and on what works best in what types of conditions along the way (Harwood, 2000: 2).

Harwood (2000: 2) concludes that:

“Market participation cannot be declared or forced, but it can be encouraged by an enabling environment, and it can be discouraged by an “unabling” environment.”

An enabling environment consists in part of a stable and credible macroeconomic policy framework, including:

- sound fiscal discipline
- balanced economic growth
- tax policies that do not disadvantage the use of bonds
- legal framework that supports bond markets
- balance of payment stability
- absence of financial repression.

Critical success factors in this area relate to:

- the political situation
- the macroeconomic situation
- supervision and regulation.

2.2.3.2 The political situation

Kviback (2000) outlined that to accelerate the rate of economic growth, emerging market governments need to:

- commit to deregulating their economies
- introduce more market-oriented approaches to economic activity
- reduce controls over economic affairs.

In this regard, governments need to strengthen their efforts to dispel any uncertainty around policy, instill business confidence and build on recent progress by further strengthening governance institutions (Kviback, 2000: 4).

2.2.3.3 The macroeconomic situation

The macroeconomic environment exerts enormous influence on the ability of bond markets to develop, and an efficient bond market is unlikely to evolve in a volatile macroeconomic environment characterized by volatile inflation and interest rates.

Phelps (1997) highlighted that the macroeconomic environment affects the competitiveness of the financial sector, the options financial institutions can present to the market and the relationships among financial institutions and between these institutions and the central government. They influence inflation rates, the term of financial instruments offered, interest rates and exchange rates.

The macroeconomic environment affects the flow of capital into and out of the country and therefore the level of market liquidity, and the incentives for investors and savers to purchase certain instruments.

The macroeconomic environment also affects the rate at which bond markets develop and the options available in the market, and ultimately determines the economic viability of investment decisions.

Fabella and Madhur (2003) conclude that:

“Bond markets in general and corporate bond markets in particular have, therefore, developed rapidly in countries where the macroeconomic environments have been more stable and predictable. Meanwhile, in countries where the macroeconomic environment has been relatively volatile, the corporate bond market has had to rely heavily on government support in one form or another.”

Therefore one of the most important requirements for the development of an efficient bond market is a stable macroeconomic environment. Sound fiscal discipline, balanced economic growth, price stability and balance of payment stability are key ingredients of such an environment.

2.2.3.4 Supervision and regulation

An effective regulatory and supervisory environment for market participants is essential to foster the development of an efficient bond market. This environment should provide for:

- investor protection
- robust business practices
- codes of conduct that reduce systemic risks.

This requires:

- transparency
- a market-based framework
- good corporate governance principles
- internationally accepted standards.

Fabella and Madhur (2003) add that:

“Rules and their enforcement guarantee that the counterparty’s rights and claims are properly protected through the life of the contract or in case of its dissolution. When these are not provided for, investors prefer to invest in assets with shorter maturities (e.g., commercial paper and bank deposits) thus discouraging bond financing. Learning from the experiences of countries with better developed bond markets, many emerging market countries need to improve the regulatory framework for the bond market.”

In order to create a strong and active bond market, protection of investor interests is of the essence. There are three major risks associated with bond investments:

- credit risk
- market risk
- liquidity risk.

According to Plummer (2003), an investor naturally deals with market risk and some types of credit risk (e.g., sovereign risk) through appropriate asset-management techniques. However, liquidity risk and some types of credit risk can only be minimized through an effective supervisory and regulatory system. This involves the development of appropriate laws and rules governing fixed-income transactions, effective monitoring and auditing systems, transparent accounting practices (e.g., full, timely and accurate

disclosure, internationally-accepted standards) and strong communications channels.

Kviback (2000), however, adds that that an efficient supervisory and regulatory framework also requires the advocacy of strong business practices, internal and external checks and a clear division of labor and objectives of regulatory authorities. The system should also allow for open and transparent rule-making and involve close dialogue with the private sector.

According to Fabella and Madhur (2003: 6): “Enforcing the formal regulatory framework is as important as developing it. It is important to ensure that courts and enforcement agencies act and decide fairly and expeditiously to resolve commercial disputes. In many emerging market countries, the enforcement of the regulatory framework is lax. In some countries it may even be necessary to set up specialized enforcement entities and courts to ensure that capital market transactions and contracts are enforced effectively and expeditiously.”

In conclusion, governments should be careful not to create an overly-burdensome regime for the private sector. For example, rules and procedures should be predictable, enforceable and effective.

2.3 OTHER BOND MARKETS

2.3.1 Introduction

Various studies provide a historical perspective on bond market development: Sylla (2001) for the United States; Emery (1998), Kim (1999), Batten and Kim (2001), Batten and Fetherston (2003) for Asian countries; and Schinasi and Smith (1998) for United States, Europe, and Japan. BIS (2002) reviews the experience of several emerging countries - mostly in Asia and Latin America - in the development of debt markets. The research indicates that to different degrees in European and Asian countries, three main factors drove the delay

of bond market development: overvaluation of domestic currencies and borrowing in low-interest-rate currencies; a bank-centred financial system that limits the role of capital markets, and opaque corporate governance, mostly linked to families that would not permit a level of transparency and disclosure that would have allowed access to capital market.

Domestic bond markets are growing and offering new kinds of instruments in many parts of the world. By surveying data from Asia, Europe and the United States, this section attempts to illustrate how the experiences of successful bond markets are characterised. From this section it can be deduced how emerging debt markets measure up on a global scale and their potential for further development can be gauged. Obviously, there are differences among countries that may slow the development of one compared to another and that factors exist in one country that may not be important in another. The data collected were from three main sources: the International Monetary Fund (IFS), discussion papers of the International Finance Corporation and papers published on the internet.

2.3.2 Asia

Batten and Kim (2001) highlight the major financial difference between pre- and post-crisis Asia has been the development and deepening of the domestic government and, more selectively, corporate bond markets. The crucial lesson policymakers took from the Asian crisis is the risk of the absence of diversification, manifested in an overreliance on banks, short maturities and foreign currencies. The four economies most affected by the crisis - Indonesia, the Republic of Korea, Malaysia, and Thailand - historically relied on short-term borrowing from domestic and foreign banks to fund their long-term needs. These countries were characterised by the success of their real economies, e.g. strong exports, low inflation, high growth and low public-sector deficits. In tandem with these accomplishments, however, significant levels of government and political intervention stunted the development of capital markets in general and domestic bond markets in particular. Rather

than tapping incipient domestic bond markets, companies gambled on the ability of their interventionist governments to maintain fixed nominal exchange rates and borrow in lower-interest rate currencies (i.e. the yen and dollar).

Batten and Kim (2001) add that the corporate governance structure, characterised by disclosure-shy, family-held firms, favoured a bank-centered system over a capital markets solution. Other obstacles to a bond market alternative for private borrowers included the lack of a strong government securities market to provide a benchmark for private issuers, an underdeveloped role for institutional investors, and inadequate market infrastructure. All these elements reflected the absence of a government strategy to develop bond and capital markets.

According to Batten and Fetherston (2003), since the crisis, financial-sector reform has become a priority for the countries hit by the crisis, such as Korea and Thailand. The domestic bond markets have assumed much more importance, and in fact they are now the fastest growing asset class in Asian emerging markets. The administrative determination of interest rates has been abandoned, and financial reform has led to the opening of the bond market to foreign investors and to greater transparency and efficiency. The fiscal deficits that resulted from the crisis turned many Asian governments from modest net borrowers into large net borrowers. This, in turn, is helping to establish a government yield curve and benchmark instruments to assist banks and corporations in pricing their issues. Modest inflation and large domestic liquidity are keeping interest rates low and are expected to boost bond issuance. Although the region's bond markets remain national, a consistent approach to macroeconomic and institutional reforms - as well as coordination in countries such as Korea, Malaysia, and Thailand - could provide the conditions for markets that are more regional in scope and that have benefits for all participants.

At the end of 2002, the value of bond markets in emerging-market Asian countries exceeded USD 1.2 trillion, more than half the total for emerging markets. In the early 1990s, commercial banks dominated the financial scene,

and the region's policymakers, issuers, and investors did not consider bond markets as a viable financing alternative. However, despite a series of difficulties during the past decade, domestic bond markets have grown rapidly to become an important feature of financial markets across Asia. However, governments, regulators and multilateral institutions still see the need for more robust domestic bond markets to finance the massive infrastructure investment that is needed to sustain the region's continued high levels of growth.

Batten and Fetherston (2003) concluded that despite these real advances in the financial sector, the lure of old habits remains strong, particularly in the area of governance. According to many observers, government commitments to deep reforms affecting the regulation and conduct of business have weakened with the passing of the acute phase of the crisis. In 2002, bond markets in Asian countries were still smaller than the banking sector. However, in Korea - the largest Asian bond market - and in Malaysia, in 2002 the share of the corporate bond market was beyond 50% (almost 60% in Malaysia) of gross domestic product (GDP). On average for Asian economies (i.e. including also China, Hong Kong, Indonesia, Philippines, Singapore and Taipei) the share is above 40%. In 2002 the bond market in the United States was 113% of GDP and over the period 1992-2002 the role of the banking sector with respect to GDP has declined. In European countries such as Italy and Spain, the increase of the corporate bond market is coupled with extremely high levels of domestic government bond outstanding as a percent of GDP (particularly in Italy). The Asian bond markets are still considerably smaller than those in advanced industrialised economies such as the US, suggesting significant potential for the further development of these markets. It also illustrates. in the case of Italy that the growth of the government bond market reduces the credit available to the private sector, which still relies on the banking sector and possibly on financing from the extended regional market.

2.3.3 Europe

Integration, liberalisation and technology have been the main drivers of the move toward achieving a single financial market in Europe. During the past 10 to 15 years, almost all European countries have put in place policies for bond market development as part of a capital market strategy made possible by the integration process and the adoption of a common currency. Countries such as Italy and Spain, whose public-sector debt in the 1980s was heavily skewed toward short-term funding, now spread their debt over a larger spectrum of maturities. They have created benchmarks for corporate bonds and for other public-sector entities (including local governments) as well as for equity markets, and they have encouraged the creation of derivative markets for government bills and bonds. Innovations such as Italy's electronic trading platform for government securities, the Mercato Telematico, which was started in 1988, have been widely replicated throughout Europe (BIS, 2002).

In Europe, what used to be several small, segmented, and fragmented debt markets mostly dealing with short-term securities has become, as of 2003, the largest domestic and international market for government securities. In the mid-2003 the domestic European government securities market was USD 4,924 billion, and in the past few years it has been slightly larger than the equivalent US market (i.e. about USD 4,800 billion).

Since the introduction of the euro, segmentation by national currencies has disappeared. Greater transparency and disclosure of information and a more efficient market infrastructure are facilitating secondary markets, liquidity and comparisons among issues. With the elimination of exchange rate risk, bond spreads among national issues have narrowed dramatically. The bond spreads for most EU governments over the German Bund over the period 1992-2002 have declined sharply. The monetary integration and the creation of the euro have produced the conditions for the very substantial reduction of spreads among the issues of member governments. The benefits are evident: not only a stable benchmark but also considerable savings in borrowing cost for the national treasuries and ultimately for tax-payers. Credit risks have moved toward convergence as a result of the fiscal stability pact that commits

governments to limit public-sector deficits to 3 percent of GDP or less (Batten and Fetherston, 2003). However, factors such as the transparency, speed and efficiency of issuance and trading systems, clearing and settlement procedures, regulatory frameworks and specific government initiatives to boost liquidity (e.g., buying back less liquid issues, interest-rate swaps) are still mostly determined at the national level, leaving much to be done. Although market competition is causing many of these factors to converge, after many years of trying European Union members have yet to agree on a common framework for investment law (Schinasi and Smith, 1998).

2.3.4 The United States

The US financial market advantages of possessing both a large unified polity and a unified economy are probably not replicable in other parts of the world. Nonetheless, officials tasked with building more efficient national or regional bond markets can benefit from reviewing the critical turning points, some deliberate and some accidental, that underlie the evolution of government bond markets in the United States. Such a review would start with certain key decisions made two centuries ago, when the United States was an emerging country with an agrarian economy.

Printing money and incurring large amounts of domestic and foreign debt financed the American Revolution. At the end of the war, in 1780, the federal government (which lacked taxing authority) and the states (all of which were in varying degrees of fiscal disarray) struggled to cope with their debts. At the Constitutional Convention in 1786, the federal government gained the power to tax and regulate trade among the states. Given the task of funding the war debt, the first Treasury secretary, Alexander Hamilton, devised a plan in 1789 that has had a lasting impact on the development of the US financial system: it assigned the entire war debt to the federal government. The initial placements in 1789 were, in effect, junk bonds and sold at 25 percent of face value. By 1792, however, the bonds were selling at 120 percent of par and were attracting foreign investors. The US bond market was thus established,

and with it the US capital market. History rightly credits Hamilton and the first Congress with putting the new government's finances on a solid footing and establishing its credit. The strengthening of the nation's public finances allowed the expansion of the US financial system (Sylla, 2001).

Although the US capital market is often taken as a model of good practice, it also needs to be understood as the product of historical forces. For example, although today central bank independence is treated as a sacred principle, for a large part of the twentieth century, from 1914 to 1934, the Treasury Secretary was ex-officio chair of the Federal Reserve and for several more years, at least until the early 1950s, had a strong informal influence over its policies. A frequently cited example of this influence was the decision to continue the wartime policy of freezing interest rates at a low level until 1951, despite mounting post-war inflation (BIS, 2002).

Sylla (2001) adds that there are other examples of the accidental nature of the development of the US financial sector. Treasury markets remained unregulated under the 1933 and 1934 Securities and Securities Exchange Acts because lawmakers at the time were understandably focused on failures in the private rather than the public markets. But this quirk of history helped pave the way for the Treasury market scandals of the 1980s and 1990s. In the 1950s, Federal Reserve open market operations only used Treasury bills. Primary dealers (initially called weekly reporters) were not created until the early 1960s. Until the early 1970s, long-term debt was placed by subscription rather than auctions, and regularly announced auctions did not occur until the mid-1970s; nor did the use of accurate, statistically derived yield curves. Treasury benchmark securities eventually arose as a result of the accumulation of these practices and ballooning government deficits. However, their availability was not the result of a deliberate policy but rather the consequence of other policies.

Today, developments in information technology drive debt management in the United States as much as the markets themselves. For example, the US Treasury has reduced the time for releasing auction results from about 20 to 5

minutes, significantly lowering the period during which market participants are at risk for lack of knowledge. At present, the US Treasury's overriding objective is to borrow money on behalf of the government on the best possible terms, which has led it to discontinue its long-term benchmark issue, the 30-year bond, which had been widely used to price and hedge long-term corporate, municipal and mortgage-related securities. The markets have adapted, but according to some traders, not without some increase in risks and decrease in liquidity.

2.3.5 African bond markets

There are 19 stock exchanges in operation in sub-Saharan Africa excluding BESA. Only 11 of these exchanges have associated bond markets, with the majority of the bond activity involving government securities (Banimadhu, 2003). The Nigerian bond market is the largest with a float of approximately \$50 billion and the Swaziland bond market is the smallest with a float of less than \$1 billion. Bond markets in Africa are heavily dependent on external financing for debt issues, with external financing representing as much as 90% of the total float. In comparison, the external debt in BESA represents less than 10% of the float (Banimadhu, 2003).

A wide variety of securities is traded on the different bond markets in Africa. In Tanzania, Nigeria and Ghana between 30% and 50% of the government securities that are issued in the market are limited non-marketable securities. These securities are registered to the owner and cannot be traded (Banimadhu, 2003). As a result the holder of the debt instrument has to be willing to wait until maturity to recover the principle. In most markets the majority of sovereign debt is in the form of treasury bills that consist of discounted obligations with relatively short durations. The exceptions to this are BESA, where approximately 90% of the sovereign debt is fixed term and Botswana, where all of the sovereign debt is fixed term (Banimadhu, 2003). The continued reliance on short-term discounted debts in the sub-Saharan markets indicates that the bond markets are poorly developed and cannot

easily support the issuance of intermediate or long-term debt instruments (Turner, 2003).

In the sub-Saharan bond markets other than BESA, commercial banks are the primary holders of sovereign debt although there is substantial variation in the percentage of debt that banks hold (Banimadhu, 2003). In Uganda, for example, commercial banks hold approximately 80% of the sovereign debt while in Ghana they hold approximately 35%. The high holding rate for commercial banks is due to regulatory requirements in some nations that force banks to purchase sovereign debt. In addition, government-backed securities are an asset allocation preference for many banks due to the absence of high quality lending possibilities in these nations that can generate a higher rate of return with a moderate risk (Banimadhu, 2003). In all markets, non-institutional investors hold a relatively small percentage of the sovereign debt float.

An investigation of the West African bond markets indicated that there is a very small number of corporate issuers in the markets of Nigeria, Ghana and the UEMOA market. The UEMOA market is the regional exchange for eight francophone nations in the region (King, 2004). These markets are dominated by sovereign debt, which represents approximately 10% of the GDP of the UEMOA market nations, 5% of the Nigerian GDP and 1% of the Ghana GDP. Similarly, the East African Community (EAC) is characterized by a predominance of sovereign debt with very little corporate debt. In Uganda, sovereign debt represents 27% of GDP while in Kenya it represents 10% of GDP (Prospects, 2005).

The coupon rate on corporate bonds in the majority of the sub-Saharan nations outside of BESA is generally based on the prevailing sovereign rate plus a premium to compensate for the higher degree of risk represented by a corporate bond. The sovereign rate in turn is derived from the monetary policy decisions of the issuing government. No yield curves exist for the majority of the bond markets. Government debt is generally issued in the form of short-dated treasury bills. "No meaningful benchmarks currently exist" in the form of

a benchmark sovereign debt instrument with a maturity date of seven to ten years in most markets (King, 2004, p. 3).

The sub-Saharan bond markets other than BESA have a large number of structural and infrastructure issues that appear to inhibit their development and value to the economy (Banimadhu, 2003). There is a narrow investor base consisting primarily of institutions. The narrow investor base reduces the incentive for dealers to develop expertise in fixed-income trading. There is also a relatively narrow range of instruments available that consist primarily of short term discounted treasury bills and intermediate term fixed rate securities. As a result, there are no benchmark bonds that can be used to measure performance and to foster the development of a corporate bond market. The clearance and settlement system for bond trading in most markets is generally inefficient with substantial delays occurring in the process (Banimadhu, 2003).

Bond markets in Africa remain, however, significantly below the level of developed countries such as the USA and Japan. This shows the ample room for bond market development in the emerging markets. As for the type of issuers, a study by the IFC¹ indicated that about 50% of the emerging market bond issues were by the governments and 50% by the private sector. This study also indicated that in the early stages of bond market development, banks were usually the first issuers, which is what we saw earlier in the development of the SA bond market (Hassan and Roll, 1999: 8).

2.4 SUMMARY

The literature review on domestic bond market development in emerging and emerged markets highlighted a number of broad categories critical to the development of the domestic bond market. Firstly, a stable political environment. Secondly, sound macroeconomic policies. Thirdly, a robust legal, tax and regulatory environment. Lastly, an effective market

¹ Anthony Aylward and Jack Glen. Primary Securities Markets: Cross Country Findings. IFC discussion Paper number 39

infrastructure which includes intermediaries. The literature review also highlighted what needs to be in place to make a successful and efficient bond market.

The next chapter will illustrate the rationale for using BESA as a case study.

CHAPTER THREE

THE BOND EXCHANGE OF SOUTH AFRICA (BESA)

3.1 INTRODUCTION

The structure of this chapter is firstly to describe the rationale for using BESA as a case study. Then BESA's history and development, structure, performance, trading functions and listing requirements are described. Finally, a summary of the critical roles BESA plays in bond market development will be outlined.

BESA is an independent financial exchange licensed in terms of the Securities Services Act, 2004 (SSA). It regulates the trading, clearing and settlement of *inter alia* bonds, bond futures, vanilla swaps, forward-rate agreements (FRAs) and bond options. It is a self-regulatory organisation operating under an annual licence granted by the country's securities market regulator, the Financial Services Board (FSB).

3.2 THE RATIONALE FOR USING BESA AS A CASE STUDY

Most research in the past on bond market development used the Asian bond markets as benchmarks, but this study deviates from previous studies and uses BESA as the benchmark. This decision was taken based on the fact that it has not had any liquidation default and no claim has been made on the Guarantee Fund in its history. Secondly, BESA did not close its market during market disruptions such as the Russian and Asian problems of 27 October 1998 or after the 11 September 2001 tragedy (Jones, 2002: 6).

Thirdly, BESA is one of the most liquid and efficient emerging bond markets in the world, turning over its market capitalisation about 18 times per annum. Some R25 billion nominal is currently traded each day on the exchange

(BESA, 2003a: 12). Lastly, BESA is more applicable to Africa than most Asian bond markets.

3.3 HISTORY AND DEVELOPMENT OF BESA

3.3.1 Introduction

This subsection expands on the major developments in the bond market over the past 30 years, including the role that the South African Reserve Bank (SARB) played in the development process.

The development of BESA can be divided into four main phases:

- the initial stages: an informal and small market
- significant structural improvements
- a formal and sophisticated market
- recent developments.

3.3.2 The initial stages: an informal and small market

The South African authorities have made strides in the last three decades to develop the domestic bond market. The initial step was taken back in the seventies, when the South African bond market was predominantly an over-the-counter (OTC) or non-exchange traded market. This means that whenever a bond was bought or sold, a physical contract passed between the respective parties the next day.

During this period, government and quasi-government debt dominated issuances in the bond market. The government issued bonds at par, on demand, on an open-ended tap basis. There was no benchmark government yield curve and price discovery was limited and inefficient.

Later, trading took place on the trading floor of the Johannesburg Stock Exchange (as it was known at the time) through “open outcry”. Not only were there no real benchmarks, there was also very little transparency in this relatively informal market. With regard to the role of the SARB in this first phase of development, there was no clear distinction between monetary and fiscal policies: primary issues were used for both financing government spending and open-market transactions (AACB, 2006).

3.3.3 Significant structural improvements

As the market developed, several investigations (such as the 1987 Stals/Jacobs inquiry into financial markets) were conducted that highlighted the deficiencies in the bond market. This prompted government to make a number of structural improvements during the late 1980s and the 1990s. These included:

- the National Treasury consolidation of a number smaller issues into a few benchmark bonds.
- the creation of a yield curve.
- the adoption of a well communicated and structured regular system of auctions. These auctions were, and still are, conducted by the SARB on behalf of the government (Mboweni, 2006: 6).

Alongside the government’s steps to improve the structure of the primary bond market, the SARB played an active role in developing the secondary bond market. In 1990, the SARB commenced market making by quoting firm two-way prices in a number of benchmark government bonds. This initiative was specifically aimed at improving the efficiency of the secondary market, which, at that time, was still relatively weak. The SARB also increased its minimum trade amount from initially R1 million to R10 million in 1995, and raised the spread between the buying and selling yield from two to three basis points. During this period, the SARB’s market making transactions increased

substantially, and at its peak represented approximately 30% of total turnover in the secondary bond market.

In addition, the SARB fulfilled its function as funding agent for the government by being a net seller of government bonds, even in adverse market conditions, by becoming a leading player in the trading of bond derivatives. It would typically be a buyer of put options and a seller of call options, which facilitated its funding responsibilities during bear markets when investor demand for bonds diminished. These market-making activities of the SARB contributed to an improved investment rating for government bonds and allowed government to borrow at relatively lower rates (AACB, 2006: 5).

3.3.4 A formal and sophisticated market

The regulatory authorities in a bid to formalise and minimise the associated risks of an OTC market approved an annually renewable licence for a new financial exchange in 1996. This new exchange, known as BESA, is a self-regulatory body operating within the framework of the Securities Services Act and a set of rules approved by the Financial Services Board (FSB).

The establishment of BESA can be seen as the introduction of the third stage of development of the domestic bond market, as it introduced a period of rapid development – both technologically and in terms of market breadth and depth.

The principal objectives of the newly-licensed exchange included:

- addressing the key systemic risks inherent in the market.
- implementing a robust, electronic delivery versus payment system.
- establishing a guarantee fund to underpin the performance of transactions.
- developing a rulebook to reflect best international practice.

BESA's clearing operations were developed through using the Group of Thirty (G30) recommendations on clearing and settlement as a blueprint. With the introduction in 1994 of a recognised clearing house, the Universal Exchange Corporation Ltd (UNEXcor), BESA members were able to benefit from electronic trading, matching and settlement. The SARB is one of five settlement agents, along with four commercial banks. In November 1997, BESA became the first exchange in Southern Africa to change to a t+3 rolling settlement, eliminating the key risk, transaction risk, faced by market participants. BESA also utilises a central depository where some 84% (by value) of securities are currently immobilised.

Although the market remains essentially wholesale in character and operates on a bilateral counterparty risk basis, BESA has developed a risk margining methodology which, once implemented, will allow for the accurate measurement of all open exposures incurred by exchange members across all markets (BESA, 2003b: 6).

By the late nineties, the secondary bond market had developed to such an extent that the SARB decided to decrease its market making role in this market. In 1998, the market-making role previously undertaken by the SARB was transferred to a panel of 12 primary dealers, selected from both local and foreign banks to improve efficiency and transparency in the secondary market. The selection was based on a set of criteria to ensure that such primary dealers would have the capacity to deal with the inherent risks associated with market making (AACB, 2006: 6).

3.3.5 Recent developments

There were a number of other milestones in the development of the South African bond market over recent years, one of which was the immobilisation and subsequent dematerialisation of all bonds listed on BESA. Also, BESA and the Actuarial Society of South Africa implemented a series of indices for government and corporate bonds which included:

- the Other Bond Index (OTHI) which reflects the performance of the 13 most liquid bonds on BESA
- the Government Bond Index (GOVI) which reflects the performance of seven benchmark government bonds
- the All Bond Index (ALBI) which is a combination of these two indices and comprises of 20 different bonds selected for their size and liquidity (Jones, 2002: 5).

Other important developments in the domestic bond market were the listing of the first inflation-linked bonds issued by the National Treasury. Currently, there are four inflation-linked government bonds in issuance, with a total market capitalization of R60 billion, representing more than 11 per cent of total government debt (AACB, 2006: 6).

The National Treasury continued to contribute to the development of the domestic bond market by introducing new types of bonds for which there was a demand in the market. These included:

- floating rate notes
- a Separate Trading of Registered Interest and Principle (STRIP) programme, in terms of which a bond can be separated into its constituent interest and principle payments and each of these cash flows traded as an individual instrument. Strips make it possible for investors to invest smaller amounts and to fine-tune the duration of their portfolios (AACB, 2006: 7).
- 2, 3 and 5-year retail bonds, which make the bond market accessible for smaller investors and encourage a culture of saving in the South African economy (Mboweni, 2006: 7) Amounts ranging from between R1 000 and R1 million can be invested in any one of the abovementioned three maturities. This programme has been a success from the outset, and serves as an example that can be used by other

developing and emerging-market countries wishing to expand their domestic bond markets (AACB, 2006: 7).

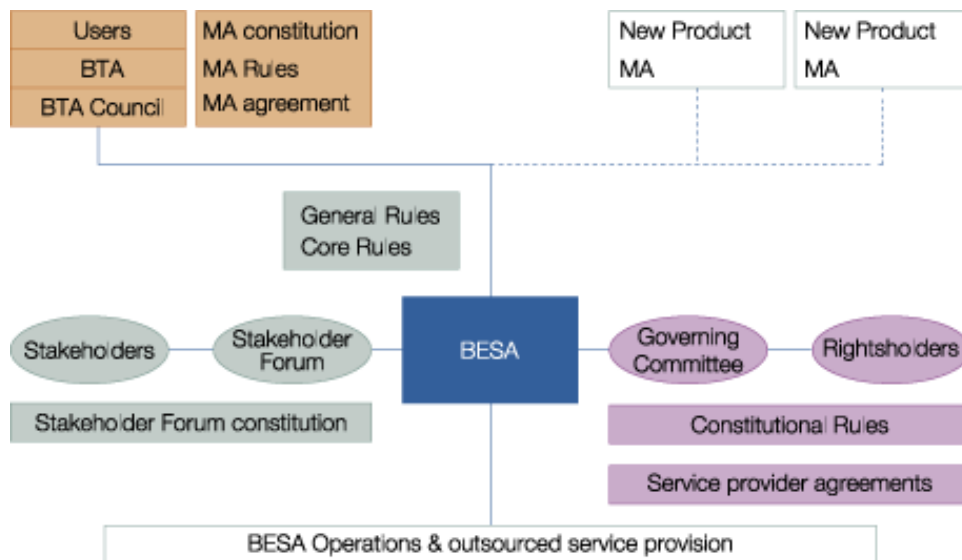
A more recent development was the shareholder vote in favour of demutualising BESA. Pending the approval of the Registrar of Securities Services, BESA will become a public company with limited liability, and will change its name to BESA Limited (BESA, 2007a: 1).

3.4 MARKET STRUCTURE AND ORGANISATION

BESA is an independent and competitive market operator, structured in such a way as to create a clear distinction between users (these include issuers as well as members of the market associations), rights holders (akin to shareholders) and stakeholders (these include SARB, the regulators, the investment community and the Debt Issuers' Association or DIA). Collectively, the various stakeholders form part of what BESA calls the "stakeholder forum".

The main aim of the stakeholder forum is to make sure that BESA and the market associations fulfill their license requirements and that the market functions effectively in terms of good market practice (BESA, 2007b: 1). Figure 1 shows the most recent structure of the market.

Figure 1 Market structure



Key:

BTA – Bond Traders' Association

MA – Market Association

Source: BESA website

Market associations are groups of users that contract with BESA for a package of tailor made services. This means that users of the exchange benefit from the ability to choose how to trade and with whom, as well as how they wish to influence and develop the market.

Market associations can be divided into four main categories:

- associations
- the Bond Traders' Association (BTA), formed by bond traders in South Africa to represent the welfare of the trading community.
- the Derivatives Traders Association (DTA); this association stands for the interests and views of firms registered to trade BESA-listed derivative instruments.
- the Debt Issuers Association (DIA); formed to guide and steer transformation within the markets by dealing with both operational and strategic issues.

Market associations have their own rules which are compliant and consistent with the core rules of BESA (BESA, 2007b: 1).

3.5 SIZE AND PERFORMANCE OF THE MARKET

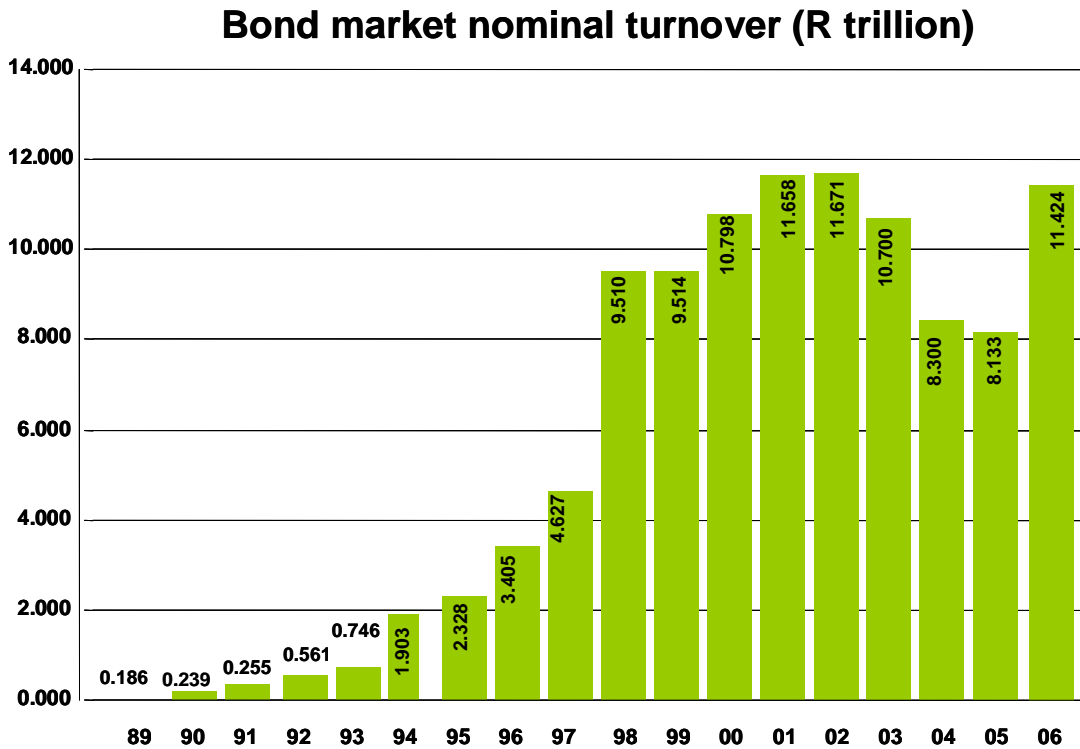
A bond exchange serves two purposes:

- to provide a mechanism for governments and companies to issue new bonds in order to raise money. This function is known as the primary market.
- to provide a means for investors to buy and sell securities that have already been issued. This function is known as the secondary market.

“At the beginning of 2006, BESA estimated that market turnover for the year ahead would be of the order of R7.8 trillion, given the steady decline in turnover year-on-year since 2002, and the bearish views of market commentators. However, against all expectations, nominal turnover increased during 2006 by 41% to R11.4 trillion, close to the turnover levels last seen in 2002 (see Figure 2)” BESA (2007c)

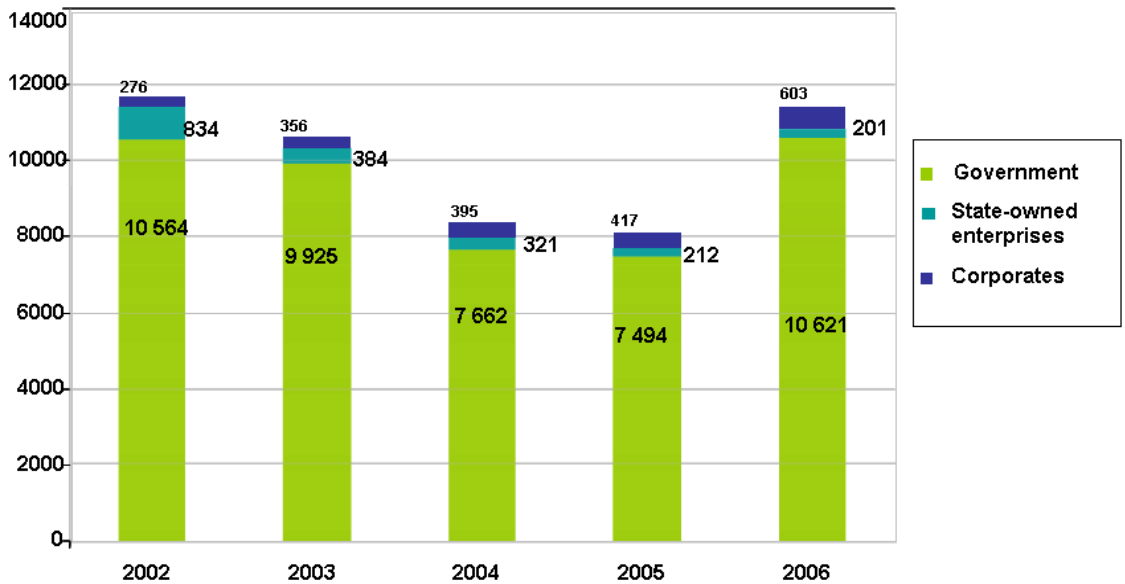
Figure 3 shows that government bonds remained the most traded instrument, contributing 93% to turnover. BESA attributed the increase in turnover to volatility in the bond market created by various external events such as increases in the Reserve Bank’s repo rate, the depreciating rand, high bond yields and increased holdings and trading by foreign investors (BESA, 2007c: 1).

Figure 2 BESA market nominal turnover 1989 – 2006



Source: BESA overview presentation

Figure 3 BESA market trades by sector

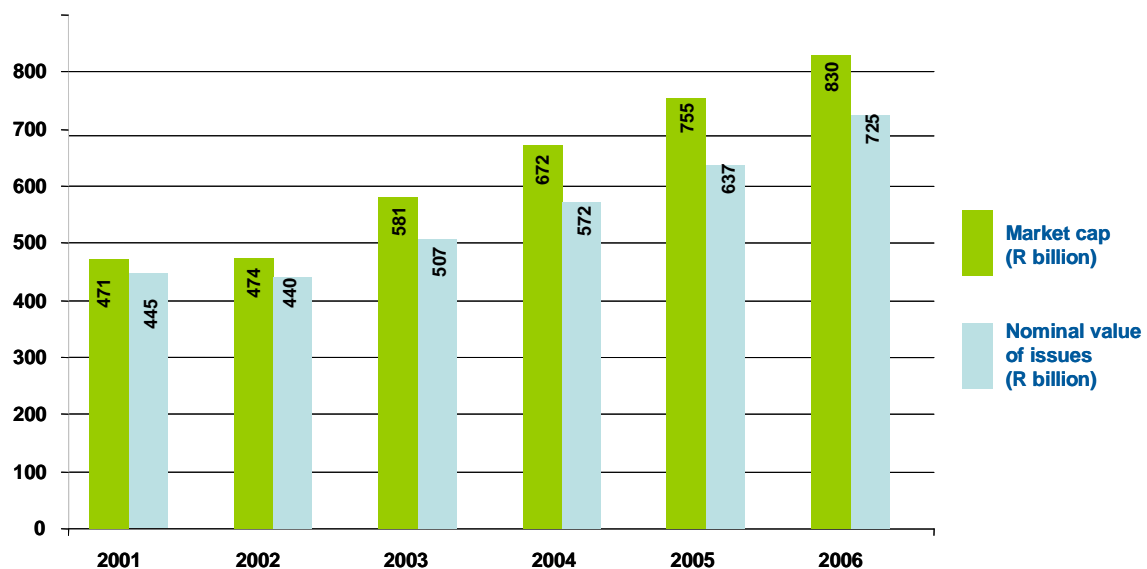


- Trades dominated by government Primary Dealer Bonds R153, R157, R186 and R194 – 79% (or R9 trillion nominal of the total R11.4 trillion nominal trades reported).

Source: BESA overview presentation

The size and performance of a bond market can be described in terms of market breadth and depth. Market breadth describes both the size of the market as well as the number of participants. As illustrated in Figure 4, the total value of bonds listed on BESA increased from R637 billion in 2005 to just over R700 billion in 2006 (about 46% of GDP) (Jones, 2007: 19).

Figure 4 BESA year-end market capitalisation and total nominal value of issues

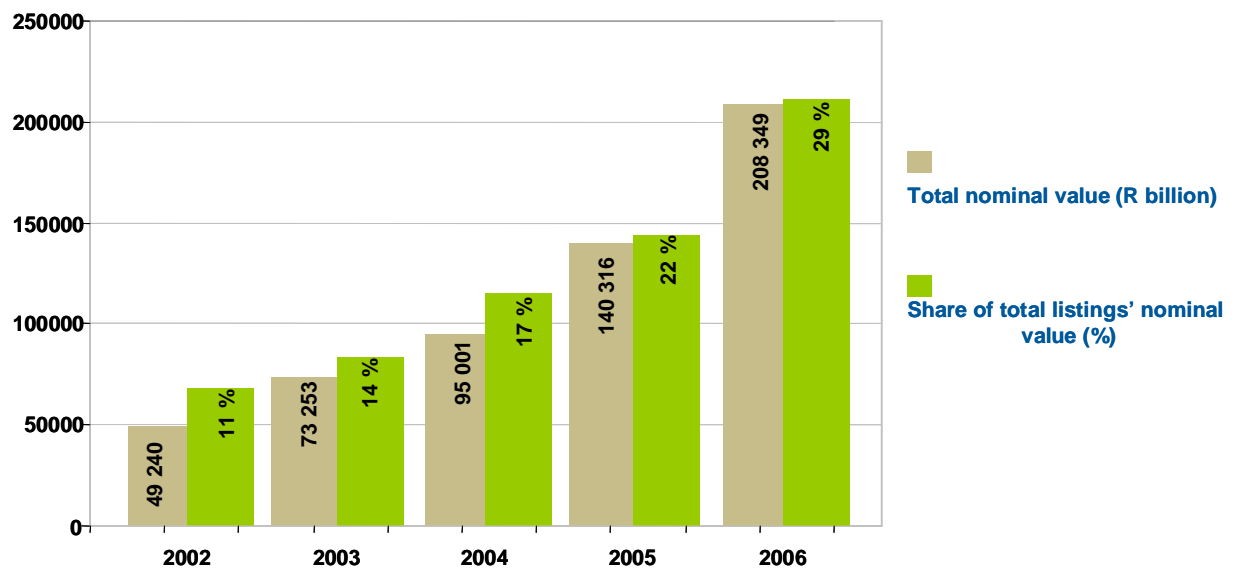


Source: BESA overview presentation

During the nineties, parastatals used to dominate the non-government bond market. Currently there is little participation by parastatals but there has been a significant increase in corporate listings, from 22% in 2005 of the total nominal value in issue to 29% in 2006 (see Figure 5). As illustrated in Figure 6, the value of listed bonds in the corporate sector increased from R140 billion in 2005 to R208 billion in 2006.

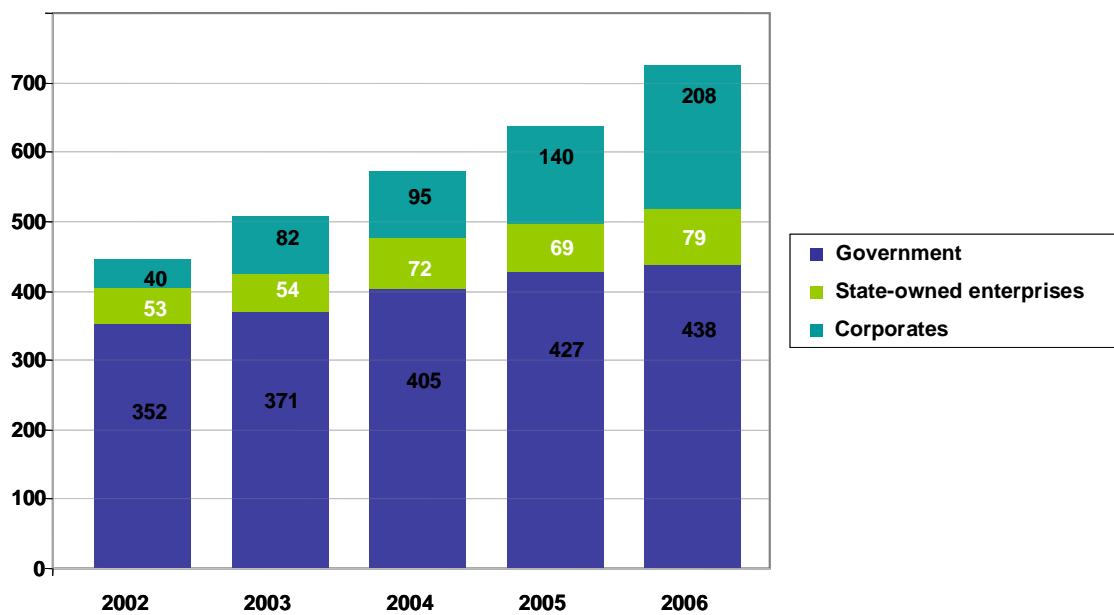
Over the next few years parastatal and municipality issues are expected to significantly increase due to planned infrastructure spending. Eskom has already committed to raising R5 billion in the bond market and Transnet has announced its intentions over the next three years to sell R18 billion in debt to fund an upgrade of its infrastructure (AACB, 2006: 4).

Figure 5 Growth in corporate listings



Source: BESA overview presentation

Figure 6 Nominal listed: by sector



Source: BESA overview presentation

Market depth is more complicated to measure. Mboweni (2006: 4) defines depth as:

“Market liquidity – that is, the ability to execute transactions of a representative size cheaply and rapidly without having too much of an affect on the price. There are a number of proxy measures for liquidity, such as the bid/offer spread, the turnover per year and the turnover as a ratio of market capitalisation.”

Faure (2007: 28) highlights that BESA is one of the most liquid bond markets in the world. Trade in bonds in the secondary market has grown substantially over the past decade. In 2005, the local market turned over its market capitalisation some 38 times (Mboweni, 2006: 4).

Mboweni (2006: 5) highlights that there continues to be strong demand for bonds from non-residents for South African financial assets. Non-residents make a significant contribution to turnover and liquidity on BESA. In 2006, non-residents purchased bonds totalling R26.8 billion and increased trading activity from 32% in 2005 to 38% in 2006. However, AACB (2006: 10) points out that:

“Non-residents holdings in domestic bonds are less than 5% of the total value of bonds listed on BESA. This could indicate that non-residents tend to be active traders in domestic bonds, while South African investors (typically banks, fund managers and pension funds) tend to follow more of a buy-and-hold strategy. This active trading of non-residents in the bond market, while posing some risks in terms of potential sharp adjustments to yields and prices, contributes to the overall depth and liquidity of the market.”

BESA also offers a trading platform for derivatives: bond futures, vanilla swaps, forward rate agreements (FRAs) and bond options. These instruments allow investors to either hedge their existing exposures or to take leveraged positions. In 2005, BESA launched Intersec, a fixed income platform to

facilitate the capture and confirmation of plain vanilla forward rate agreements (FRAs) and swaps traded over the counter (OTC). Since 2005 OTC trades reported on Intersec have increased from a total of 627 trades with a value of R159 billion to 1 063 trades with a value of R589 billion in 2006. However, listed derivative trading activity has been slower in uptake. (BESA, 2007c:1).

3.6 LISTING

BESA provides a platform for the listing, trading, clearing and settlement of debt securities issued by central and local government, parastatals and private-sector businesses in a transparent, efficient and orderly market place.

BESA's listing requirements are based on international best practice. This includes:

- a flexible and not so cumbersome process.
- an environment that supports full disclosure and investor confidence.
- documentation that is comprehensive.
- requirements that are not onerous but with set standards as well as being cost effective (Jones, 2007: 13).

The listing requirements have two main functions:

- they specify the rules and procedures governing new applications and ongoing responsibilities of issuers.
- they dictate minimum disclosure requirements (either included in the placing document, or provided separately).

The abovementioned two main functions of listing requirements are aimed at providing investors with confidence and the ability to make an informed assessment of the nature and state of an issuer's business. These requirements should not be seen as burdensome, but as an instrument to uphold suitable disclosure to the market (BESA, 2007d: 5).

Scrutiny and approval of all listings applications, supporting documentation and matters relating to listing disclosure requirements is performed by the listing committee appointed by the executive committee of BESA. In terms of the rules and listing requirements, the listing committee also has the power to consolidate, suspend, remove or modify from time to time a listing of a debt security as well as a requirement for the listing of debt securities (BESA, 2007d: 5).

3.7 TRADING AND SETTLEMENT

Trading of listed bonds by member firms may take place on a 24-hour basis, Monday through Friday. The open outcry trading floor, originally situated in the Johannesburg CBD, was closed in late 1998 and trading now takes place via telephone and / or inter-dealer broker screens.

Four settlement agents (who are the major clearing banks) manage the electronic net settlement process. If any of the settlement banks decline to commit to settle on behalf of a member firm, BESA would default that member and draw on its Guarantee Fund to effect the net settlement for the day. The Fund thus covers the re-transaction price risk incurred on a member default. To date, the local market is yet to experience a default and no claims have ever been lodged on the Bond Exchange's Guarantee Fund. The local settlement process was further enhanced with a move from a two-week settlement period to a rolling trade date + 3 (t+3) in November 1997 (BESA, 2003a: 12).

3.8 REGULATION OF BESA

For an exchange to operate successfully, investors must have the confidence that they can deal at genuine and fair prices, and that the market is not manipulated to their disadvantage. A proper regulatory framework that is adhered to by all market participants, and is enforced by the appropriate

regulatory authorities, brings about this confidence and integrity. BESA is licensed in terms of the Securities Services Act, 1989. The Act was drafted:

“... to increase confidence in the South African financial markets; promote the protection of regulated persons and clients; reduce systemic risk and promote the international competitiveness of securities services in South Africa.”

Key and central features to BESA's operations are its regulatory and supervisory obligations. These obligations are met by the Market Regulation Division (MRD), which was established in 2004 as a totally ring-fenced division separate from BESA's commercial operations.

The MRD plays a pivotal role in BESA's success through its three principal focus areas; firstly, BESA is cultivating a culture of compliance amongst its members. BESA has adopted a policy of zero tolerance to any contraventions of its regulatory requirements and has imposed as well as enforced strict penalties for any contraventions. Secondly, the MRD is responsible for both the regulatory supervision and surveillance of the market's trading activities, including reviews of the previous day's trading, alert to market manipulation or abuse, changes in spreads and the open positions of users. The aim of this supervision and surveillance is to promote open, transparent and fair trading. Lastly, the legal function of the MRD ensures that the regulatory requirements of the Financial Services Board (FSB) are consistent, aligned as well as included in the rules of the exchange and are complied with by the users of the exchange.

Through its independent compliance, surveillance and regulatory support role, the MRD strives to ensure market stability, credibility and integrity (BESA, 2006: 1).

According to BESA, in order to encourage local and foreign investment into bond markets, governments have to ensure that the regulations that govern the bond markets comply with international standards. BESA has ensured that

the rules of the exchange are G30-compliant. It continuously strives to mark its rules against international best practice (BESA, 2005: 14).

3.9 SUMMARY

The literature review on BESA presented the case study and highlighted a number of critical roles BESA plays in the development of the domestic bond market. Firstly, BESA represents the interests and facilitates the needs of the participants of the market. Secondly, BESA provides a platform and process for issuing debt securities. Thirdly, the exchange provides investors with certainty as to rights and responsibilities as well as providing appropriate regulation for market participants, market conduct, transparency requirements and rules for clearing and settlement. As the self regulatory authority of the secondary market a fourth role of BESA is to make and enforce rules and regulations to prescribe business conduct, trading, clearing and settlement rules. Lastly, BESA's processes and procedures deal with the listing (or facilitating) of all types of securities, trading, matching and clearing of trades, settlement, surveillance, default and a host of other activities. The literature review also highlighted BESA's position as a leader among emerging-market economies.

The next chapter will present the analysis of the case and an interpretation of the analysis.

CHAPTER FOUR

ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

This chapter uses a basic framework to analyse and evaluate the BESA case study.

This framework is derived from combining the critical success factors established in Chapter 2 and the following two bond market development frameworks:

- Leigland's (1997) framework for assessing municipal bond market development, which uses the underlying strengths of the U.S. market as targets to be achieved. The strengths are summarised as an example in Figure 7.
- Harwood's (2000) framework for evaluating the major impediments to building local bond markets. This approach was used to evaluate the situation in five South Asian countries.

The primary goal of the framework is to establish what factors make BESA successful. The following factors were identified as key to developing a successful domestic bond market:

- stable political environment
- diversified market participants
- appropriate regulatory and supervisory environment
- robust legal environment
- stable macro economic policies and credible policies
- an efficient platform
- quality transparent and accessible information about market and economy that is released in a timeous fashion during market trading

hours, providing market participants with the ability to digest information and trade accordingly in an active market.

Figure 7 Framework for assessing municipal bond market development (Leigland framework)

Supply/demand	Essential market strengths	U.S. market characteristics
<p>Demand for municipal bonds: Investor attraction</p>	<ul style="list-style-type: none"> • Investor familiarity and confidence • Ability to trade securities • Freedom to invest • Acceptable investment return • Strong credit quality • Information regarding risks • Assistance in interpreting information 	<ul style="list-style-type: none"> • 200 years of legal/procedural development • Active secondary market • Absence of government controls • Tax-exemption for interest income • Tax-supported debt • Revenue-backed debt • Separate corporate issuers • Standardised legal/financial data • Financial intermediaries (rating agencies, bond insurance, mutual funds)
<p>Supply of municipal bonds: Issuer attraction</p>	<ul style="list-style-type: none"> • Tolerable borrowing costs • Long-term debt amortization • Assistance for small borrowers • Facilitative formal oversight 	<ul style="list-style-type: none"> • Low interest rates/issuance costs • Extended maturities • Bond banks, pooled borrowing, etc... • Responsible self-regulation

Source: Leigland (1997)

4.2 BESA ANALYSIS and INTERPRETATION

4.2.1 Introduction

The framework referred to in the preceding section is employed in this section to analyse and evaluate studies relevant to BESA's success. The market strengths, as well as the ways in which they have been achieved by BESA, are summarised in Figure 8, and discussed in the subsequent sections.

Figure 8 Framework for assessing BESA's success.

Essential market strengths	BESA market characteristics
<ul style="list-style-type: none"> • Stable macro-economic policies • Stable political environment • Robust legal environment • Appropriate regulatory and supervisory environment • Market infrastructure • Diversified market participants 	<ul style="list-style-type: none"> • Sound fiscal discipline • Balanced economic growth • Balance of payments stability • Price stability • Absence of financial repression • Political stability • Absence of strong interest group activity • Absence of corruption • Reasonable level of government capacity • Independent legal and justice system • Protection of property and creditor rights • Market-based framework • Good corporate governance • Internationally accepted accounting standards • Efficient settlement systems • Adequate information flows • Diversified issuer base • Diversified investors

Source: BESA (2005)

4.2.2 Stable macro-economic policies

Harwood (2000: 11) indicates that:

“Bond markets require stable macro and political environments to grow. Economic growth must be strong enough to generate appropriate issuers and investors; inflation and interest rates cannot be too high or volatile.”

Since 1994, the South Africa economy has undergone a number of structural transformations, which include the implementation of macro-economic policies aimed at achieving sustainable growth and creating an increasing level of employment.

There have also been a number of economic reforms that have given rise to a high level of macro-economic stability:

- reduced taxes
- the elimination of SARB's net open forward position
- SARB's successful monetary policy of inflation targeting, yielding positive results - the real interest has stabilised and the currency is able to fluctuate at competitive levels.
- lowered tariffs
- relaxed exchange controls
- the bringing under control of the fiscal deficit
- the launch of the South African government's Accelerated and Shared Growth Initiative for SA (ASGISA), which is aimed at halving unemployment and poverty by 2014, substantially investing in infrastructure and creating an environment conducive to economic growth (DTI, 2007: 4).

4.2.3 Stable political environment

As far back as 1993, the ANC have believed that the most important way to attract international investment is to create a stable and democratic political environment. Fourteen years into democracy, during the transformation period from an apartheid regime to a democracy, South Africa has put in place the following building blocks:

- a Constitution that guarantees rights and freedoms
- a democratically elected government
- a parliament of elected representatives and institutions charged with safeguarding democracy.

The political situation in South Africa over the last decade has been stable due to the implementation of a number of government initiatives, such as, the Truth and Reconciliation Commission (TRC) and employment equity.

The government initiatives have been put in place to ensure a credible political system that guarantees peace, respect for human rights and freedom.

4.2.4 Robust legal environment

In the broader legal environment, South Africa's well developed commercial law legislation provides a supportive, world-class, progressive legal framework for debt market development. In addition, legislation pertaining to competition policy, copyright, patents, trademarks and disputes conform to international norms and conventions.

Common law and the independent courts enable bond investors and trustees to enforce creditor rights and the protection of property. In addition, the independence of the judiciary is guaranteed by the Constitution. Extensive legal and tax policy changes have been implemented and this has helped build an active market in securitised paper (DTI, 2007: 4).

4.2.5 Appropriate regulatory and supervisory environment

Most bond exchanges, including BESA, developed as self-regulatory organizations (SRO's). "According to the FSB, the national statutory regulator, a SRO must efficiently and effectively supervise and oversee the operation of the market using expert knowledge and available resources. It is also empowered to create rules in line with the statutory requirements set by its regulator and to amend and enforce these rules with respect to the entities that it supervises and regulates" (BESA, 2006).

As a SRO, BESA developed under the supervision of the FSB and BESA ensures that it has access to appropriate resources to comply with the criteria as stipulated by the FSB. The FSB is a quasi-independent body established by statute (Financial Services Board Act, No 97 of 1990) to oversee the South African financial services industry with the exclusion of the function of accepting deposits from the general public (Lawless, 2004). The FSB is responsible for supervising and regulating the financial markets.

The main supervisory and regulatory functions of the FSB are to:

- strengthen and develop the market
- ensure compliance with international standards such as BESA rules are G30 compliant
- license and monitor the market
- provide investor protection
- enforce the rules, processes and procedures (BESA, 2005: 14).

BESA has established a MRD tasked with ensuring that the regulatory requirements of the FSB are included in the rules of the exchange and are complied with by all users of BESA.

4.2.6 Market infrastructure

Post 1996, BESA has focussed mainly on developing the appropriate market infrastructure. Market infrastructure is the trading mechanisms and clearing and settlement practices of the market. A number of factors were considered when choosing the most efficient platform, including:

- type, cost and functionality of the trading platform
- the clearing and settlement system
- type of investor. OTC markets are more suited to institutional investors, whilst exchange traded markets are more suitable for retail investors.

Having considered the abovementioned factors, BESA developed (and encouraged) an appropriate infrastructure which inter alia consists of:

- an efficient T+3 nett settlement model that is compliant with the latest G30 recommendations
- financial intermediaries (primary dealers, brokers, banks) to support the bond market and promote liquidity
- centralised distribution of live and historical market information, including news feeds, pricing and turnover reports
- a centralised securities depository to facilitate transfer of ownership of scrip
- a platform for electronic trade capture and matching (BESA, 2005: 14).

4.2.7 Diversified market participants

For a market to develop and function effectively, key market participants should be in place:

- issuers
- investors
- intermediaries.

And if there are no market participants in place then there is no market (Harwood, 2000).

There are four reasons why market participants would enter into a market:

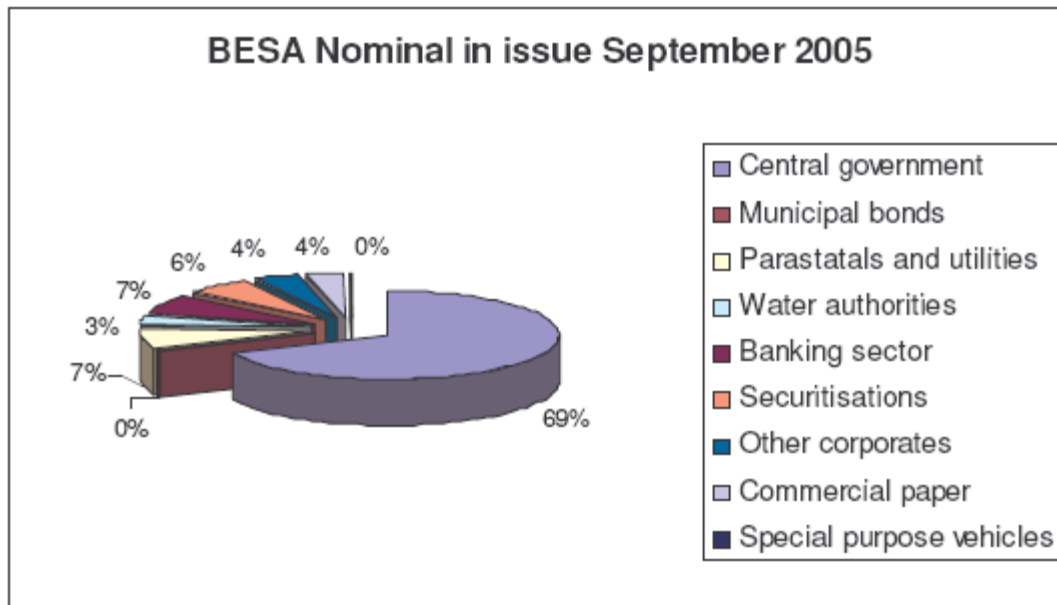
- if there is a significant economic benefit
- if the market participants are willing
- if the market participants have the right skills and regulations
- if the market participants are structured right as an industry to participate (Harwood, 2000: 6).

Harwood (2000: 10) highlighted that:

“An active primary and secondary market needs a diversified issuer base with varied credit risk representing different economic sectors.”

Figure 9 reflects the various issues listed on BESA, which includes corporations, banks, infrastructure projects, municipalities and securitisation vehicles.

Figure 9 Bonds in issue on BESA



Source: BESA (2005: 10)

The demand for bonds (investor attraction) is essential for the development of a bond market, and is provided by both institutional and retail investors.

BESA and government encouraged this demand /assisted the market by:

- providing investor protection; this is achieved through a robust legal and regulatory environment
- providing macroeconomic stability; this makes forecasting inflation and interest rates easier. Investors are therefore able to take a long-term view
- ending prescribed investment regimes
- launching retail bonds which enable smaller investors to access the market
- providing large product ranges, allowing investors to customise their portfolios.

The main role of intermediaries is to bring issuers and investors together.

There are various types of intermediaries, which include:

- banks
- bond insurers
- rating agencies
- primary dealers
- investment funds
- brokers.

Banks play a significant role in the development of BESA, not only by arranging and underwriting services but also by providing capital for debt investments. In addition, 12 primary dealers were selected from both local and foreign banks to improve the efficiency and transparency in the primary and secondary markets (BESA, 2005: 5).

The importance of intermediaries in bond market development is highlighted by the comment from the Research Triangle Institute (Leigland, 1997: 15):

“Intermediaries, such as investment funds and rating agencies are extremely important in bond markets because they provide professional assistance to investors in making investment decisions, particularly in processing the often complex information that is available on prospective investments.”

Furthermore, in 2006 Standard & Poor’s Ratings Services announced that they would issue credit ratings on issuers as well as specific debt issuances listed on BESA. The rating scale would benefit the corporate bond market by contributing to the growth and transparency in the bond market by helping investors to better distinguish between the credit quality of local debt issuers and specific issuances (AACB, 2006: 9)

4.3 CONCLUSION

This chapter began with a subsection describing a framework for evaluating bond market development. Based on several factors such as stable macroeconomic and political policies, and the regulatory and supervisory framework sourced from two different frameworks, a six factor framework was derived to analyse and evaluate BESA.

The rationale for selecting both Leigland's (1997) and Harwood's (2000) frameworks to analyse and evaluate the BESA case study is that Leigland's framework for assessing municipal bond market development reviewed and evaluated efforts in a select group of emerging markets to accelerate the development of municipal bond markets. This evaluation and analysis was presented within a framework suggested by the key strengths of the U.S. municipal bond market, often used as a model for market development in emerging economies. Harwood's framework looked at why countries should consider building domestic bond markets and how to evaluate what factors are needed and what might be developed. The framework stressed the importance of building local bond markets in emerging economies and identified the need for domestic bond markets, the impediments to developing them, and how those impediments might be removed.

Initially, the list of factors for the development of robust bond markets was lengthy, many factors were not well developed in emerging markets, most factors developed at different rates and each factor seemed as necessary as the other. Therefore a high level blend of all the critical success factors that overlap all 3 frameworks was used to formulate the final six factor model as illustrated in Figure 8.

A qualitative assessment of the seven factors across BESA is given in Figure 9. An element of subjectivity was almost impossible to avoid in selecting these factors because several of these indicators of bond market development are qualitative in nature.

The next chapter contains a summary of conclusions of the study. It also presents recommendations for further research on the subject.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS FOR FURTHER RESEARCH

5.1 SUMMARY OF CONCLUSIONS

Bond markets worldwide are built from similar building blocks: participation by issuers with long-term financing needs, investors with a need to place funds into interest-bearing securities, intermediaries that bring together investors and issuers, and a market infrastructure that provides trading mechanisms and clearing and settlement practices for the market. Therefore, bond markets are not solely built on building market infrastructure but also by integrating diversified market participants.

The thesis set out to investigate the past experiences and developments of BESA as a case study and identify key success factors and/or lessons to be learnt. It has been shown in the literature review and chapter four that the list of success factors for the development of robust bond markets was lengthy, many factors were not well developed in emerging markets, most factors developed at different rates and each factor seemed as necessary as the other. Therefore it has been concluded that a high level blend of all the critical success factors that overlap all 3 frameworks should be used. The theoretical basis on which this conclusion was grounded rested upon combining the critical success factors established in Chapter 2 as well as the Leigland (1997) and Harwood (2000) frameworks to formulate the final six factor model as illustrated in Figure 9.

As discussed above, there are a number of factors that are necessary and must be met for a bond market to be successful. The six factor model highlights the six key factors:

- stable macroeconomic environment
- stable political environment
- robust legal environment
- appropriate regulatory and supervisory environment
- robust market infrastructure
- diversified market participants.

These six factors are by no means exhaustive, but constitute the key success factors for the development of a successful bond market.

Harwood (2000: 2) concludes that many factors in the development of robust bond markets are not well represented in emerging markets. To develop these factors takes time and countries would need to grow their markets in less than ideal conditions. Countries most will most likely have to introduce their market either sequentially (starting with stabilizing macroeconomic and political conditions) or partially (only having a primary market). In both circumstances market participants in these countries will still gain from the benefits associated with having a bond market.

The thesis also highlighted a number of important benefits a bond market provides for the economy:

- bond markets help foster macroeconomic stability; this is achieved by the funding of budget deficits, the transmission and implementation of monetary policies and the reduction in exposure to foreign denominated debt
- bond markets provide an alternative source of domestic debt finance; this is achieved by reducing the over-reliance on bank lending and minimising the exposure of the economy to the risk of a failure in the banking system
- corporate bond markets help reduce the cost of capital; this is achieved by allowing corporations to borrow directly from intermediaries through bond issuance, bypassing the intermediary role of a bank.

- bond markets allow for the efficient pricing of credit risks; this is achieved by generating market interest rates that reflect the opportunity cost of funds at each maturity
- bond markets provide an alternate source of external funds for the private sector other than equity and bank borrowing, which enhances financial stability and efficiency of credit allocation.

5.2 LESSONS AND CHALLENGES FOR THE REST OF AFRICA

BESA's market structure and history, detailed in Chapter 3, offers a few important lessons about how fast African countries can build their bond markets and/or improve their market practices.

BESA (2005: 4) concurs with this view commenting:

“In order for African countries to develop their markets, their legislators, regulators, Central Banks and National Treasuries can learn from the experiences from their South African counterparts.”

Below are four of the most common challenges facing the development of African debt markets as well as possible suggestions gained from the BESA experience on how to resolve these challenges:

- small number of listings; this challenge can be resolved by adopting a more coherent capital market development strategy and robust market infrastructure
- lack of longer-term maturities; this challenge can be resolved by ensuring macroeconomic and political stability, so that issuers and investors can take a long-term view
- low turnover volumes; this challenge can be resolved by increasing the number and types of listed instruments, so that investors do not only buy and hold the instruments to maturity

- lack of investors; this challenge can be resolved by providing investor protection (robust legal and regulatory environment) and macroeconomic stability (BESA, 2005: 4).

The above issues highlight some of the major challenges facing the development of bond markets in Africa.

5.3 RECOMMENDATION FOR FURTHER RESEARCH

In light of the difficulties associated with the development of bond markets in emerging markets and the continued attempts to improve existing markets, further research would be needed to evaluate different bond market development frameworks. Ideally such research should focus on the most problematic design feature, namely that markets are at different stages of development.

This thesis has recommended the use of a six factor framework, which highlights factors that are necessary and must be met for a bond market to be successful. However, future research can evaluate the success of the six factor framework with a view to assessing the factors, given the fact that the six factors used are by no means exhaustive.

REFERENCES

AACB, 2006. Country experience with the development of the capital markets: the case of South Africa. **AACB Journal**. 17 August. Pp 2-10.

AKHTAR, S., 2007. Fixed income market development in emerging market economies. **RSBP Research Bulletin**. 3, 1: 2.

BANIMADHU, S., 2003. **Regional snapshot of government bond markets in Africa and challenges of developing active bond markets**. Available: http://info.worldbank.org/etools/library/view_p.asp?lprogram=4&objectid=83615. [Accessed 28 December 2006].

BATTEN, J. and FETHERSTON, T., 2003. Disintermediation and the development of bond markets in emerging Europe. **International Journal of the Economics of Business, Taylor and Francis Journals**. 10, 1: 67-82.

BATTEN, J. A. and KIM, Y. H., 2001. **Expanding long-term financing through bond market development: a post-crisis policy task**. In Y. H. Kim (Ed.), *Government Bond Markets in Asia* (pp. 290-360). Manila: Asian Development Bank.

BIS, 2002. The development of bond markets in emerging economies. **BIS Papers No 11**. 1 June. Pp 1-218.

BESA, 2003a. **Profiling the bond exchange of South Africa**. [Online]. Available: <http://www.bondex.co.za/about/profile/Profile%20of%20the%20Exchange%20-%20March%202003%20-%20FINAL%2002.pdf>. [Accessed 20 March 2004].

BESA, 2003b. **Operational aspects of developing capital markets**. [Online]. Available: <http://www.bondex.co.za/notices/publications/index.html>. [Accessed 20 March 2004].

BESA, 2005a. Developing a capital market in Africa: and its implications for infrastructure development on the continent. **BESA**. 17 October. pp 4-14.

BESA, 2006. Market regulation report. **Annual report 2006**. [Online].

Available:

http://www.bondexchange.co.za/besa/action/media/downloadFile?media_fileid=6834

[Accessed 17 November 2008].

BESA, 2007a. **BESA seatholders approve demutualisation**. [Online].

Available:

<http://www.bondexchange.co.za/besa/view/besa/en/page143?oid=25867&sn=detail> [Accessed 5 February 2008].

BESA, 2007b. **Market structure**. [Online]. Available:

<http://www.bondexchange.co.za/besa/view/besa/en/page109>

[Accessed 5 February 2008].

BESA, 2007c. **Market performance**. [Online]. Available:

<http://www.bondexchange.co.za/besa/view/besa/en/page12950>

[Accessed 5 February 2008].

BESA, 2007d. Listing disclosure requirements. **BESA**. 10 January. pp 4-6.

BROWNBRIDGE, M. and HARVEY, C., 1998. **Banking in Africa: the impact of financial sector reform since independence**. Trenton, New Jersey; Africa World Press.

DTI, 2007. **South Africa: geared for growth**. Available:

<http://www.dti.gov.za/publications/SAgeared4growth2007.pdf>. [Accessed 5th February 2008].

ECONOMIC COMMISSION FOR AFRICA, 1999. **The promotion of capital markets in Africa: assessment of needs in capital markets development Southern, Western and Central Africa.** [Online]. Available: http://www.uneca.org/eca_resources/Publications/DMD/DMD_1999_Promotion%20of%20capital%20mkts%20in%20Africa.pdf [Accessed 10 May 2004].

EMERY, R. F., 1998. **The bond markets of developing East Asia.** Boulder, Colorado: Westview Press.

FABELLA, R. and MADHUR, S., 2003. **Bond market development in East Asia: issues and challenges.** [Online]. Available: <http://www.adb.org/Economics/default.asp>. [Accessed 10 January 2004].

FAURE, A.P., 2007. **The Bond Market.** Cape Town: Quoin Institute.

GRANDES, M. and PINAUD, N., 2004. Which policies can reduce the cost of capital in southern Africa? **OECD Policy Brief.** 25: 6

HAMEED, F., 2007. Fostering the corporate bond market in Pakistan. **SBP Research Bulletin.** 3, 1: 2.

HARWOOD, A., 2000. **Building local bond markets: an Asian perspective.** Paper presented at the South Asia regional debt market symposium, Sri Lanka.

HASSAN, Y. and Roll, R., 1999. **The development of the bond market in Egypt.** [Online]. Available: <http://www.iceg.org/NE/projects/financial/bond.pdf>. [Accessed 28 December 2006].

HERRING, R.J. and CHATUSRIPITAK, N., 2000. **The case of the missing market: the bond market and why it matters for financial development.** Paper prepared for the Asian Development Bank Institute/Wharton Seminar on Financial Structure for Sustainable Development in Post-Crisis Asia.

HONG KONG MONETARY AUTHORITY, 1999. **The development of the government bond market in Hong Kong**. [Online]. Available: <http://www.adb.org/Projects/APEC/DBM/docs/HK-paper1.pdf> [Accessed 20 June 2004].

INTERNATIONAL ORGANISATION OF SECURITIES COMMISSIONS (IOSCO), 2002. **The development of corporate bond markets in emerging market countries**. [Online]. Available: <http://www.iosco.org/pubdocs/pdf/IOSCOPD127.pdf>. [Accessed 15 May 2004].

JONES, A., 2007. BESA: overview of the capital markets. **BESA**. 20 July. pp 1-31.

JONES, A., 2002. **Developing African bond markets: what should be done**. [Online]. Available: <http://www.bondex.co.za/notices/publications/index.html>. [Accessed 20 March 2004].

Kim, Y. H., 1999. **Creating long-term mortgage-backed bond markets in Asian developing economies: a post-crisis agenda**. EDRC Briefing Notes No. 18. Manila: Asian Development Bank.

KVIBACK, M., 2000. **Issues in local bond market development**. [Online]. Available: [http://www.ifc.org/ifcext/publications.nsf/AttachmentsByTitle/Building_Local_Bonds_Chp.15/\\$FILE/Building_Local_Bonds_Chp.15.pdf](http://www.ifc.org/ifcext/publications.nsf/AttachmentsByTitle/Building_Local_Bonds_Chp.15/$FILE/Building_Local_Bonds_Chp.15.pdf) [Accessed 15 February 2008].

LATTER, T., 1999. **The development of domestic capital markets in Hong Kong and the wider Asian region**. Paper presented at the Asian Financial Markets Conference, Hong Kong.

LAWLESS, T., 2004. **Of bonds and the bond exchange**. Presentation at the North African emerging capital markets.

LEIGLAND, J., 1997. Accelerating municipal bond market development in emerging economies: an assessment of strategies and progress. **RTI**. 1. pp 1-10.

MBOWENI, T., 2006. **Deepening capital markets: the case of South Africa**. [Online]. Available: [http://www.icbs.co.za/internet/Publication.nsf/LADV/590E9E23E07AC8B34225721F003B90DE/\\$File/IMF-capital+markets-7+nov06a.pdf](http://www.icbs.co.za/internet/Publication.nsf/LADV/590E9E23E07AC8B34225721F003B90DE/$File/IMF-capital+markets-7+nov06a.pdf) [Accessed 21 January 2008].

PLUMMER, M.G., 2003. Bond market development and integration in ASEAN. **International Journal of Finance and Economics**. 10, 2: 133-142.

RBI, 2007. **Report on currency and finance**. [Online]. Available: <http://www.rbi.org.in/scripts/PublicationReportDetails.aspx?UrlPage=ReportonCurrencyandFinance&ID=499> [Accessed 15 February 2008].

SCHINASI, G.J. and SMITH, R., 1998. **Fixed income markets in the United States, Europe, and Japan: some lessons for emerging markets**. IMF Working Paper No. 173. Washington, DC: International Monetary Fund.

SECURITIES AND EXCHANGE COMMISSION COMMITTEE (SECC), 2000. **The reactivation of the Nigerian bond market**. Unpublished conference paper. [Online]. Available: <http://www.secng.org/pdf/BondMarketCommitteeReport.pdf>. [Accessed 15 February 2004].

SYLLA, R., 2001. **Is recovery of Asian markets sustainable?** Japan and the World Economy, Elsevier, 13,2: 191-193.

TURNER, P., 2003. **Bond markets in emerging economies: an overview of policy issues.** [Online]. Available:
http://info.worldbank.org/etools/docs/library/154716/domestic2003/pdf/BIS_Turner_BondMkts.pdf. [Accessed 28 December 2006].

WITHERELL, W., 2003. **Global and local bond markets: a financial stability perspective.** [Online]. Available:
<http://info.worldbank.org/etools/docs/library/83697/witherell.doc>. [Accessed 28 December 2006].

WORLD BANK, 2000. **Developing government bond markets: a handbook.** [Online]. Available:
<http://www1.worldbank.org/finance/assets/images/Introduction.pdf> [Accessed 28 December 2006].