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MASTERS OF MANAGEMENT IN FINANCE AND INVESTMENTS

DISSERTATION

FINANCIAL ANALYSIS OF THE CAPITAL DEBT FUNDING FACILITIES AVAILABLE TO MUNICIPALITIES IN SOUTH AFRICA

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ABSTRACT

The issue of service delivery in South Africa has been one of the main priorities for the post-apartheid government since 1994. Local government, through municipalities, has been tasked with the provision of services to citizens. In order to achieve this, the municipalities need to invest in massive infrastructure, both to address the infrastructure backlog inherited from under-investment in previously black communities as well as infrastructure to support economic growth and development across the full breath of the Republic.

Based on the revenues available from own sources and intergovernmental transfers, municipalities are unable to meet their constitutional mandate and this creates an area of participation for the private sector. Access to capital markets becomes an important source of funding that municipalities, in addition to borrowing from financial institutions such as banks, should aggressively pursue. This is an area that the metropolitan municipalities in particular, should prioritise as they are in a better position to exploit, than the smaller and less-resources local municipalities. Government can then focus on finding innovative ways of reining in the local municipalities, in as far as accessing capital markets.

LIST OF TABLES

Table 1 Distribution of economic entities listed on BESA

Table 2 Sample size of listed debt

Table 3 List of corporates issuing bonds with publicly-available financial data

Table 4 Average bond maturities

Table 5 Average yield to maturity

Table 6 Average funding cost

LIST OF FIGURES

Figure 1 Liquidity: Non-corporate conventional bonds

Figure 2 Liquidity: Non-corporate inflation-linked bonds

Figure 3 Liquidity: Corporate conventional bonds

Figure 4 Liquidity: Corporate inflation-linked bonds

Figure 5a Turnover ratio: Corporate conventional vs corporate inflation-linked bonds

Figure 5b Turnover ratio: Non-corporate conventional vs non-corporate inflation-linked bonds

Figure 6a Prime lending rate vs the 3-month deposit rate

Figure 6b Liquidity of the non-listed loan obligations

Figure 7 Total debt to EBITDA for the listed companies that issued bonds

Figure 8 Total estimated amount of municipal debt to total municipal revenue

ACRONYMS

AltX	Alternative Exchange
BESA	Bond Exchange of South Africa
BRICS	Brazil, Russia, India, China and South Africa
DBSA	Development Bank of Southern Africa
GDP	Gross Domestic Product
JSE	Johannesburg Securities Exchange
LED	Local Economic Development
MDG	Millenium Development Goals of the United Nations
MFMA	Municipal Finance Management Act of 2003
MIG	Municipal Infrastructure Grant
MTEF	Medium Term Expenditure Framework
OECD	Organisation for Economic Co-operation and Development
RDP	Reconstruction and Development Programme
SAFEX	South African Futures Exchange
SALGA	South African Local Government Association

TABLE OF CONTENTS

ABSTRACT i
LIST OF TABLES ii
LIST OF FIGURES iii
ACRONYMS iv
CHAPTER 1: ABOUT THE STUDY 1
1.1 Introduction 1
1.2 Context of the Study 1
1.3 Research Problem 3
1.4 Research Questions 4
1.5 Research Objectives 4
1.6 Significance of the Study 5
1.7 Outline of the Study 6
CHAPTER 2: BACKGROUND LITERATURE 7
2.1 Introduction 7
2.2 Political and Fiscal Devolution (Decentralization) of Control 9
2.2.1 Decentralization in South Africa and the regulatory framework 10
2.2.2 The challenges imposed by devolution on sub-national governments 13
2.2.3 Devolution and the need for sub-national borrowing 16
2.3 The Structure of the overall debt markets in South Africa 18
2.4 Structure of the Municipal debt market in South Africa and the Regulatory environment 20
2.4.1 The Municipal Finance Management Act (MFMA) of 2003 21
2.4.2 The demand-side of the municipal debt market 23
2.4.3 The supply-side of the municipal debt market 25
2.5 The competing and / or complementary relations between public and private debt markets in South Africa 26
2.5.1 Comparative advantages of bank debts and bonds 27
CHAPTER 3: RESEARCH METHODOLOGY 29
3.1 Research Design 29
3.2 Population and Sample 29
3.2.1 Population 29
3.2.2 Sample Size and Selection 30

3.4 The Research Design 32
3.4.1 Liquidity of the debt instruments 32
3.4.2 Average term to maturity 33
3.4.3 Rates of return (Cost of capital) 33
3.4.4 Perceived risk of default (Credit Risk) 34
CHAPTER 4 : PRESENTATION OF RESULTS 37
4.1 Introduction 37
4.2 Liquidity 37
4.2.1 Liquidity of the listed debt securities 37
4.2.2 Liquidity of the non-listed loan obligations 41
4.3 Average term to maturity 44
4.3.1 Average term to maturity on listed bonds 44
4.3.2 Average term to maturity on non-listed debt instruments 44
4.4 Rates of return / Cost of capital 45
4.4.1 Yield to maturity on listed bonds 45
4.4.2 Cost of funds on non-listed debt instruments 46
4.5 Perceived risk of default 47
4.5.1 Risk of default on listed bonds 47
4.5.2 Risk of default on non-listed debt instruments 48
CHAPTER 5 : DISCUSSION AND CONCLUSION 50
5.1 Summary of Findings 50
5.2 Conclusion and Recommendations 51
REFERENCES 54
APPENDICES 57

CHAPTER 1: ABOUT THE STUDY

1.1 Introduction

This Chapter discusses the context of the study, lays out the research problem, the research questions guiding the study, the important gap in the literature, the research objectives resulting from the questions, and the envisaged and obvious significance of the research outcome. It concludes by presenting the outline of the study.

1.2 Context of the Study

The thorny issue of poor municipal service delivery is a reality that many South Africans continue to live with even in the new dispensation. To a large extent the problem is one derived from the historically distorted and absurd inequality presenting as the legacy of apartheid. A central pillar of apartheid was that of maintaining high standards of services offered by the government in white, and to a lesser extent, Indian and coloured communities, paid for in large part by depriving African areas (Neva Makgetla, 2007). The greater proportion of economic resources was distributed and concentrated amongst the non-black communities with their relatively smaller populations. This meant that by exploiting the taxability of these economically viable sub-populations, the apartheid government was able to invest in infrastructure that made service delivery for the select race groups much easier and attainable (Joseph & van Rensburg, 2002).

Unfortunately this system left enormous backlogs and inequalities in access to water, sanitation, electricity and other municipal services (Neva Makhetla, 2007 page 147). As a way of addressing this malaise, the post-1994 government has placed a strong emphasis on community and grass-root initiatives and participation. Importantly though, local government is now viewed as a vital sphere of government, and has been allocated a range of roles and responsibilities with respect to social and economic development, under the general concept of Local Economic Development (LED) (SALGA, March 2010). Local governments now face the dual challenge of having to provide basic service delivery to all citizens whilst

maintaining and / or improving the quality of existing services provided, especially in the formerly non-black communities (Joseph & van Rensburg, 2002).

Through the Municipal Finance Management Act #56 of 2003 (MFMA), the democratically-elected government aims to modernise budget, accounting and financial management practices by placing local government finances on a sustainable footing in order to maximise the capacity of municipalities to deliver services to their communities (National Treasury, 2004). To this end, astute financial management is seen as critical in optimising the process of delivering much-needed services with arguably limited and inadequate financial resources. Phillip Van Ryneveld (2006, page 2) argues that the process of constitutional change has enabled considerable attention to be directed towards the creation of a sound, overall framework of decentralization and to addressing infrastructure needs via the establishment of autonomous, financially stable local governments.

Earlier the likes of Wunsch (1998) cited previous research findings that suggest that highly centralized and top-down service delivery is expensive, cumbersome, inflexible, adapts slowly to new information (if at all), and is prone to political abuse. According to Klaus, Bahrinipour & Feusers (2008), decentralization is in contrast, regarded as an important step towards a democratic political system and more efficient service delivery. Currently, the developmental mandate of local governments is implemented through metropolitan municipalities in the six largest urbanised and industrialised centres in the country.

Outside the metropolitan areas, the local government mandate is pursued by a two-tier local government, namely 231 local municipalities grouped into 46 district municipalities (Atkinson, 2007). The financing of municipal expenditure is made available from three generic sources, namely (1) own revenues raised through taxes or user charges assigned to them, (2) grants or other transfers from other spheres of government that are made either unconditionally or earmarked for particular functions or types of expenditures and (3) loans or equity financing arrangements that leverage resources from citizens and the private sector for public infrastructure investment (Savage, 2008).

The purpose of this paper is to analyse the capital funding facilities available to municipalities in South Africa, with a key emphasis on the municipal debt market in terms of the investment and risk characteristics of the debt instruments issued by the municipalities. Klaus et al. (2008) argue that given the importance of infrastructure for enhancing growth and hence, poverty alleviation, it is essential for government to increase spending on

infrastructure. Unfortunately, government funds (which include inter-governmental funds and municipalities' internally-generated funds) in developing countries such as South Africa, are usually scarce and / or limited, and this makes borrowing an important means of accessing additional funds to finance infrastructure services.

The White Paper on Local Government (1998) recommended that municipalities should seek private investment to supplement available public funds, in particular for capital expenditure. In fact, current legislation prohibits the use of long-term debt to cover operational expenses incurred by municipalities, although the link between the operating and capital budgets provided through the interest payments on long-term loans and the maintenance of capital assets, both of which are functions considered as operational, remains intact (Joseph & Van Rensburg, 2002). Klaus et al. (2008) further assert that municipal borrowing improves local governance, particularly accountability, transparency and financial management at the local government level. This assertion was made on the assumption that the exposure of local governments to capital markets requires municipalities to be transparent and leads lenders to exert a certain control function on local government finances (i.e., it fosters best practice governance within municipalities).

Of particular interest is the development of the municipal debt market post – 1994 and how it impacts on the ability of the municipalities to meet their constitutional mandate through borrowing. This market has been in existence for a while, but pre – 1994, it was operated under a prescribed investment regime that required that a significant portion of institutional investor funds, be allocated to government investments. In return the national government would offer guarantees on repayment that were abolished, resulting in a significant number of private investors pulling out of the municipal bond market (Mantsho & Blaauw, 2009).

1.3 Research Problem

Municipalities in South Africa can only borrow for capital expenditure, meaning that municipalities can only access the debt markets for capital project funding purposes. The bulk of the borrowing is, however, concentrated on a few, bigger municipalities that are perceived to be creditworthy, with many municipalities not having access to private capital at all (Klaus et al., 2008). Borrowing levels have tended to be low across municipalities except in the metros. The reasons for this low borrowing may undermine the realization and rationale for some of the financial reforms that have been introduced (SALGA, 2010).

Currently bank credits and municipal bonds are the two main financing instruments of sub-national borrowing in South Africa. A significant lack of requisite knowledge of the investment and risk characteristics of these debt instruments deployed by the municipalities for capital funding purposes, makes it difficult for municipalities to live up to their prescribed mandate – i.e., effective and efficient service delivery, economic growth, and redressing the legacy of the enduring injustice / inequities of apartheid. This lack of knowledge further impedes the necessary know-how on reformation of local debt markets and / or the how-to of exploring complementary sources of capital projects funding.

1.4 Research Questions

The attendant research questions flowing from the need to resolve the identified research problem can be articulated as follows:

- How liquid and marketable are these debt securities (i.e., the state of debt markets in South Africa)?
- What is the average term to redemption (maturity) on the debt instruments and is this compatible with the long-term nature of capital (infrastructure) projects?
- What are the rates of return (cost of capital) on these debt instruments and how do they compare to one another?
- Has the perceived level of riskiness, in particular the risk of default, following the removal of the central government guarantees on municipal bonds increased since 1994?

1.5 Research Objectives

Systematic effort at attempting to answer the above research questions leads to these identifiable research objectives.

- To establish whether the investigation into the investment and risk characteristics explains the prevailing trend in the development of the municipal debt market in South Africa. The investment and risk characteristics of interest and relevance in this case include:

    1) the yield available on debt instruments available to municipalities,

    2) the type and level of security offered,

    3) the average term to redemption and

    4) the liquidity and/or marketability of the instrument.

- To investigate the municipalities' preference for capital funding methods and the reasons for that preference

- Further analyse which debt instruments are more viable given the type of municipality; i.e., whether the preferences outlined above, differ for metropolitan municipalities versus the lower-ranking municipalities

- Based on the observations made by various authors, it has been suggested that due to the political transition process, municipal borrowing has largely dried up (Klaus et al., 2008). The paper will investigate what the impact of the removal of explicit government guarantees that had existed prior to 1994 entails for the development of the municipal bond market and public debt market in general.

1.6 Significance of the Study

According to Klaus et al. (2008), the metros in South Africa not only account for the bulk of municipal borrowing in absolute terms, but on average they also have a higher debt per capita ratio. They argue that the size of municipalities is not the main influencing factor for the engagement with borrowing, there are also some smaller municipalities that in fact finance a substantial amount of their capital expenditure through borrowing. A host of reasons such as poor financial management, a lack of technical and project implementation capacity, failure to implement and enforce the various pieces of legislation passed since 1994, have been cited

by various authors such as Klaus et al. (2008) & Brown, Motsoane & Liu (2013), as being the main bottlenecks for municipal borrowing.

As stated in the research objectives, the paper will make a significant contribution by highlighting the reasons and the factors that have resulted in the stagnation or sub-par performance of the municipal debt market (and the domestic debt market in general). Secondly, lessons from the more developed debt market of the metropolitan municipalities that can be adopted by the lower-ranking municipalities to reduce their over-reliance on government grants. Finally, the study can inform alternative or complementary forms of capital funding mechanism resident or possible within the current domestic debt market.

1.7 Outline of the Study

The study has firstly provided an introduction, context of key issues, research problems, objectives and questions. Chapter 2 will provide literature review on the use of debt markets in infrastructure financing in South Africa. The review will also include the experience of other emerging economies and the challenges faced in this area of their governance program. The chapter develops an insight on the existing gaps in the literature. Chapter 3 presents the research methodology and discusses the research design, as well as the sources of data. Chapter 4 analyses and presents the results of the study. Chapter 5 discusses the results and draws conclusions, as well as make recommendations and suggestions for further study.

CHAPTER 2: BACKGROUND LITERATURE

2.1 Introduction

Amongst the many challenges that developing countries face, the two main ones are that of reducing poverty and enhancing economic growth. According to Klaus et al. (2008) it is both economic infrastructure such as electricity, roads, water and sanitation, and social infrastructure such as health and education that are crucial for economic growth in developing countries. They further argue that the contribution that the infrastructure makes in reducing poverty will spur the achievement of the Millenium Development Goals of the United Nations (MDGs), to which South Africa is a willing signatory (Stats SA, 2013). For instance, by providing clean and safe drinking water, both mortality and morbidity rates are greatly reduced. A healthier citizenry makes for a more productive one, which bodes well for economic prosperity and hence, job-creation. To this end, Freire & Petersen (2004) argue that these long-lived facilities are important for building healthier, better-served populations and for creating competitive economies.

An econometric study conducted by Kumo (2012) found that there is a strong relationship between economic infrastructure investment and GDP growth that runs both ways, implying that in South Africa, the economic infrastructure investment drives the long-term economic growth whilst improved growth feeds back into more public infrastructure investment. The infrastructure requirements of OECD countries and the non-member BRICS countries are growing. Raising capital for investment in infrastructure facilities is a universal concern in developing and transitioning economies. Central projections for the next two decades or so suggest that the world economy is set to grow on average at close to 3% per annum to 2030, with developing countries' performance outstripping that of the developed countries by a wide margin, 4% per annum versus 2.4% per annum (World Bank, 2007). The two-way street, along which economic growth encourages demand for infrastructure, and infrastructure generates economic growth, is set to get much busier in the years to come (OECD, 2007, page 20).

Despite the economic and social benefits to be derived, infrastructure spending falls way below what is needed, resulting in a huge infrastructure investment gap. In South Africa the current levels of infrastructure spending are closer to 8% of GDP. Actual government

spending on infrastructure over the 2010/11 to 2012/13 Medium Term Expenditure (MTEF) period has fallen short of budget, with R 642 billion spent over the three years, against a target of R 846 billion in 2010 (2010/11 budget review). The need to address this under-spending of 76% of the total planned infrastructure budget was mentioned as a priority in the implementation of the NDP, by the Minister of Finance in his 2013 budget speech. Looking forward to the 2013/14 to 2015/16 MTEF period, planned expenditure on infrastructure totals R827 billion. The gap accounts for more than 22% of the total MTEF budget period (KPMG, 2013).

The OECD (2007) report suggests that despite growing pressures on public budgets, general and local taxes, in the form of inter-governmental grants and own-revenue income of municipalities in South Africa, respectively, will continue to provide the most important sources of infrastructure financing. However, public budgets fed by taxes will not suffice to bridge the infrastructure gap, coupled with the South African government's lacklustre track-record regarding spending on infrastructure. Infrastructure has all the characteristics of a public good; non-excludability and non-rivalry in consumption. Given its importance for poverty eradication, its provision remains essentially the domain of the government. But as previously stated, the inadequacy of state financial resources, make a case for private sector participation, to the extent that it complements the role that government plays in the provision of services (Klaus et al., 2008).

They further contend that private sector participation is premised on the existence of liquid local capital markets and sound financial institutions that are able to channel local savings to the respective investments. The importance of this to local governments derives from the fact that they are unlikely to access international capital markets and should therefore, not have to bear the currency risks that come along with it (Klaus et al., 2008). Except for certain types of facilities (e.g. electric power, ports, airports and telecommunications), most sub-national governments have little access to foreign currency funds, and hence they deal exclusively in domestic currency for their revenues and expenditure (Freire & Petersen, 2004).

Furthermore, David Savage, (2008, page 15) argues that borrowing from private capital markets to finance infrastructure investment is generally seen as an efficient way to finance capital programmes for reasons of the inherent lumpiness of capital spending, intergenerational equity and the governance benefits seen to result from having to negotiate funding from private parties. Skeptics, on the other hand argue that sub-national borrowing

bears a high risk of over-borrowing, leading eventually to macroeconomic instability (Klaus et al., 2008, page 11).

The literature review below first looks at the need for and the observed trend in the devolution / decentralization of the responsibilities for infrastructure delivery from the South African central government to the local governments. Section 2.2.1 looks at the regulatory framework within which devolution takes place. Section 2.2.2 deals with the challenges imposed by devolution on local governments. Section 2.2.3 looks at how the constitutional mandate of decentralizing service delivery highlights the need for sub-national borrowing. Section 2.3 then takes a look at the structure of the overall debt markets in South Africa. In particular Section 2.4 looks at the structure of the Municipal debt market and the supporting regulatory environment. Sections 2.4.1 and 2.4.2 outline the demand-side and the supply-side of the Municipal debt market, respectively. Lastly Section 2.5 deals with the characteristics of and the relations between public and private debt markets in South Africa.

2.2 Political and Fiscal Devolution (Decentralization) of Control

Devolution is by definition the process by which a central government gives power, authority, property, and so on, to local groups or governments. Freire & Petersen (2004) define devolution as the granting of greater political and fiscal revenue and spending responsibility to sub-national units of government and the performance of more government functions at the sub-national level. In particular Klaus et al. (2008) note that over the last two decades, countries throughout the world have been decentralizing responsibilities for infrastructure delivery from the central state to lower spheres of government. The political argument underlying this move is based on the principle of subsidiarity, according to which, in a democracy, the lowest level of government that can determine and effectively meet the needs of its constituency is the most appropriate structure of government (Freire & Petersen, 2004, Klaus et al., 2008). To the economist, the arguments are as follows:

- The sub-national government's greater knowledge of sub-national needs strengthens the links between tax revenues and spending benefits that accrue to sub-national taxpayers.

- Sub-national authorities can respond more readily and effectively to local conditions, resulting in improved delivery of government services.
- Bringing expenditure assignments closer to revenue sources enhances accountability and transparency (Freire & Petersen, 2004, page 11).

Essentially the arguments in favour, both political and fiscal, suggest that decentralization *strengthens democracies* and *increases efficiencies* in the provision of services at the local level and that may result in reduced transaction costs. The details of the extent and effectiveness of devolution are specific to each country and in particular, Klaus et al. (2008) contend that in developing countries not all spheres of government have the same technical and administrative capacity to ensure that the aforementioned benefits of devolution are realized. Ultimately, however, a well-designed decentralization that is adapted to a country's specificities is likely to positively affect infrastructure service delivery (Klaus et al., 2008, page 17).

2.2.1 Decentralization in South Africa and the regulatory framework

Decentralization is not a recent phenomenon in South Africa, but from 1996 the Constitution established a new system. South Africa has had a decentralized system since the foundation of the Union of South Africa in 1910. Before the democratic transition in 1994, two separate forms of decentralization existed along racial lines: on one hand white local governments and on the other hand black local governments, including the autonomous "native reserves" of the black population (Klaus et al., 2008, page 23). The resultant infrastructure investment patterns were such that the levels and quality of services were highly differentiated between racial group areas and across the country. This variation was also accompanied by a pattern of duplication and spatial dislocation of investment (Savage, 2008). He alleges that this was evidenced by the fact that in racially segregated towns and cities, bulk infrastructure (such as water and treatment works) was often duplicated, while in former homelands high levels of service were occasionally installed to showcase the benefits of separate development.

As a way of building an effective system of decentralization, there are now 3 spheres of government: *national*, *provincial* and *local government*, with the local government consisting of municipalities covering the entire territory of the Republic of South Africa. Local

government was established as an autonomous sphere of government with executive and legislative powers vested in its Municipal Council (Brown et al., 2013). The most important pieces of legislation regulating local government are the following:

Constitution (1996)

"The Constitution has granted municipalities authority to govern the local government affairs of their communities without interference from either the national or provincial governments. A municipality must:

- structure and manage its administration, and budgeting and planning processes to give priority to the basic needs of the community, and to promote the social and economic development of the community; and
- participate in national and provincial development programmes.

In turn, the national and provincial governments must support and strengthen the capacity of municipalities to manage their affairs, to exercise their powers and to perform their functions."

These are the following categories of municipality (van Ryneveld, 2006; Atkinson, 2007):

- Category A: A municipality that has exclusive municipal executive and legislative authority in its area. There are six (6) metropolitan ("metros") municipalities.
- Category B: A municipality that shares municipal executive and legislative authority in its area with a category C municipality within whose area it falls. There are 231 local municipalities.
- Category C: A municipality that has municipal executive and legislative authority in an area that includes more than one municipality. There are 46 district municipalities which typically include several local municipalities within their borders.

"Chapter 13 of the Constitution deals with all financial aspects of the various spheres of government, including local government. In particular the Constitution details the various sources of local government funding as follows:

From the national government, a local government is entitled to:

- an equitable share of revenue raised nationally to enable it to provide basic services and perform the functions allocated to it; and
- may receive other allocations from national government revenue, either conditionally or unconditionally.

Deriving from its *municipal fiscal powers*, a municipality may impose:

- rates on property and surcharges on fees for services provided by or on behalf of the municipality; and
- if authorised by national legislation, other taxes, levies and duties appropriate to local government, but no municipality may impose income tax, value-added tax, general sales tax or customs duty.

A Municipal Council, may in accordance with national legislation:

- raise loans for capital or current expenditure for the municipality, but loans for current expenditure may be raised only when necessary for bridging purposes during a fiscal year; and
- bind itself and a future Council in the exercise of its legislative and executive authority to secure loans or investments for the municipality."

What the Constitution has done is to entrench the autonomy of local government by prohibiting any actions by national and provincial governments that might compromise or interfere with the ability of a municipality to discharge its constitutional obligations (Brown et al., 2013).

White Paper on Local Government (1998)

"The White Paper on Local Government introduces the concept of "Developmental Local Government" as the central responsibility of municipalities to work together in a co-operative way that implies an ongoing negotiation process with local communities to find sustainable ways to meet their needs and improve the quality of their lives. According to the paper, a developmental local government will have the following interrelated characteristics:

a. Maximising social development and economic growth
b. Integrating and coordinating the efforts of the various agents such as provincial departments, community groups and private sector institutions that play a role in achieving local prosperity
c. Democratising development by promoting the involvement of local citizens and community groups in the design and delivery of municipal programmes.
d. Building the type of political leadership that will ensure that knowledge and information is acquired easily and speedily, thus promoting continuous learning"

The implications are for example, that the provision of household infrastructure is the central contribution made by local government to social and economic development. This includes services such as water, sanitation, local roads, storm water drainage, refuse collection and electricity. These are services for which the municipalities collect large amounts of money in rates, user charges and fees. In order to provide these services, the municipalities buy goods and services and pay salaries, thus contributing directly to the flow of money in the local economy (White Paper, 1998).

Furthermore, through integration and coordination, municipalities should actively develop ways to leverage resources and investment from both the public and private sectors to meet their development targets. A review by the South African National Treasury (2001) of the White Paper, cited by Brown et al. (2013) stresses that the importance of private sector investors is not only because they bring additional funding to the national table, but also because they tend to have better expertise of evaluating projects and credit risk and for managing outstanding loans than do public sector lenders. In this regard, a developmental role for local government offers substantive benefits to local residents, communities, provincial and national spheres of government and the nation as a whole (White Paper, 1998, page 26).

2.2.2 The challenges imposed by devolution on sub-national governments

The constitutional mandate has unfortunately put massive pressure on local governments to deliver services (Klaus et al., 2008). Freire and Peterson (2004) contend that in order for the sub-national governments to meet this mandate, they must first have the ability to raise and

use resources and to make binding commitments that are politically sustainable. In South Africa, some of the challenges present as follows:

Firstly the Municipal Demarcation Act of 1998 triggered the restructuring and consolidation of the municipal landscape, resulting in the ultimate formation of 283 municipalities in South Africa (Klaus et al., 2008). The amalgamation process integrated poor and wealthy urban communities, and created cities that brought together business hubs, wealthy suburbs and townships under one administration (Brown, Motsoane & Liu, 2013 & Freire & Petersen, 2004). This was done with the intention to generate revenues from the core cities that could be used to extend much-needed municipal services to the underserved areas. Makgetla (2007) acknowledges that the process of demarcation went a long way in setting up a unified fiscal and political basis for neighbouring black and white communities.

The symmetric allocation of functions within spheres of government has, however, been criticised for failing to recognise the significant variation between individual municipalities in terms of *investment needs*, *appropriate investment standards* and *institutional capabilities* (Savage, 2008). For example, a metropolitan municipality such as the City of Tshwane must subject itself to the same project-based approval process that applies to its poor rural counterpart, to use infrastructure grant funds from national government despite it already managing self-funded capital projects of a significantly greater size and complexity (Savage, 2008, page 10). To this end, Atkinson (2007) suggests that there will be major upheavals to the attainment of the developmental local government that are caused by the demarcation whose real impact will be felt for years.

Secondly, the need for infrastructure investment is itself colossal, given the backlogs that resulted from inadequate investment made during the apartheid years. In fact, the apartheid backlogs meant that South Africa remained noticeably behind comparable economies in providing basic infrastructure. According to the United Nations Development Programme (UNDP) data in the early 2000s South Africa ranked 49th in the world on GDP per capita, but only around 75th on access to improved sanitation and water (Makgetla, 2007). Another phenomenon that added to the increased need for new infrastructure, was that of both rural-urban migration and the large-scale provision of small Reconstruction and Development Programme (RDP) houses after 1994. The shift resulted in a rapid fall in the average African household size, whilst the number of households rose faster than the population (Makgetla, 2007; Brown et al., 2013).

Thirdly, municipalities derive their income from three sources: own-source revenues, grants from national government, and borrowing. According to the analysis provided by Makgetla (2007), there are two fundamental problems with this income derivation and distribution that disadvantages the poorer municipalities in relation to the formerly white municipalities. Firstly even after 1994, municipalities are expected to raise the bulk of their income from own rates and taxes, with only a limited national subsidy. Given that in the former homelands, household incomes are low, this means that revenues raised locally by the municipalities tend to be significantly inadequate. Secondly, national subsidies tended to be still higher for the richer municipalities. The reason is that there was a tie between government subsidy and existing infrastructure. That is, government grants were linked to maintenance and current costs of historic capital expenditure. This translated to the former homelands that had suffered from extremely low public investment under apartheid receiving lower government subsidies, even post-apartheid.

In 2006, government did effect some fiscal policy changes, noticeably that of increasing transfers to municipalities and targeting the transfers more to the poorer municipalities. This it achieved by implementing a new redistribution formula meant to increase the allocations and more so to the poorer municipalities, as already stated. In the view of Makgetla (2007), the increased subsidies seemed unlikely to make a meaningful difference. If anything, the local government budgets have tended to reinforce, rather than diminish, the spatial inequalities left by apartheid. In conclusion, she thus argues that overcoming these inequalities would require a fairly substantial redistribution of resources to the poorest municipalities, over and above those achieved by national government to date.

The points raised above highlight the fact that much as the decentralization of power goes a long way in strengthening democratic political systems and more efficient service delivery by giving more decision-making power, it does place greater financial burden on the sub-national government. In fact the White Paper on Local Government does state that municipalities face immense challenges in developing sustainable settlements which meet the needs and improve the quality of life of local communities. Klaus et al. (2008) lament the fact that in general, decentralization often results (unintentionally) in local governments only getting increased administrative or political responsibilities, but no fiscal autonomy. They argue that funds spent on infrastructure service delivery by the local government, are dependent on the discretion of central government to transfer sufficient resources. They further contend that the fiscal imbalance between responsibilities and financial resources thus

created, can only be remedied through higher own resource revenues together with the authority to borrow (Klaus et al., 2008, page 12).

2.2.3 Devolution and the need for sub-national borrowing

The constitutional mandate of decentralizing service delivery to local government has placed an enormous burden on municipalities in South Africa. The mandate seeks to exploit the matching principle of local finance that emphasizes that the financial capacity of local governments should be aligned with the functional responsibilities delegated to them (Klaus et al., 2008). Klaus et al. (2008) argue that this principle is often not met given that the increased responsibilities in providing services are seldom accompanied with an appropriate transfer of financing means and powers. Unfortunately increased infrastructure responsibilities imply the need to invest in physical assets, and these physical facilities themselves, require massive capital investment. This investment is done against the backdrop of what Freire & Petersen (2004), have termed a "hard budget" constraint at the local government level. They define a hard budget constraint as meaning that the sub-national government must live within its resources and cannot depend on the central government to cover its deficits or repay its debts.

The Municipal Infrastructure Investment Framework 7 for South Africa puts the levels for capital expenditure for the 2009 / 2010 year at R 46 billion (DBSA, 2012). This means that the infrastructure financing needs for South African municipalities will remain substantial over the next 10 years, estimated at approximately R 500 billion (Brown et al., 2013). Of the three forms of income sources for the municipalities, the DBSA (2012) report shows that the metropolitan municipalities derive most of their income from internal sources, namely *user charges and property taxes*. The lower ranking municipalities on the other hand, are heavily dependent on government subsidies, with insignificant funding from internal sources.

The reason for this discrepancy lies in the fact that these municipalities do not get much by way of rates and service payments given that the residents are generally poor and cannot afford to pay for the services and / or most do not receive any municipal services anyway (Makgetla, 2007). Supporting this observation, Van Ryneveld (2006) asserts that to a large extent, the metros are self-financing since they receive approximately 3% to 6.7% of their

budgets in grants, whereas, smaller and rural municipalities with weaker tax bases receive up to 87.3% of their budgets from transfers.

According to Freire & Petersen (2004) the decentralization of services to local government usually renders the revenue sources at the sub-national level, inadequate to fund the services, thus inter-governmental transfers do fill in the gap. There are three types of grants / transfers: the *unconditional grants* (based on the equitable share formula), the *conditional grants* targeted at infrastructure development (the Municipal Infrastructure Grant) and lastly the *conditional grants* meant for capacity building and restructuring municipal operations. These transfers from national government have been increasing significantly over the years, with the DBSA (2012) report showing that the increase in the Municipal Infrastructure Grant (MIG), which represents the bulk of the transfers, is at a real rate of 14% per annum.

Brown et al. (2013) argue that these sources of capital finance are insufficient to meet the estimated demand, thus expanding and deepening the sub-national credit market is viewed by government as critical to providing a long-term financing source. Leigland & Thomas (1999) contend that the desirability of credit financing of facilities with a long lifespan, allows "pay-as-you-use" financing where users of the facilities pay for them through taxes or special charges over the lifetime of the facility. They argue that "pay-as-you-build" financing that relies on current tax revenues to finance construction, tends to put an unfair burden on citizens who enjoy little use of the facility.

According to the DBSA (2012) the estimated total amount that municipalities budgeted to borrow for the period 2009/10 was R 10.7 billion of which the budget for the metros stood at R 7.9 billion. Clearly at 74% of the borrowing requirement, the metropolitan municipalities dominate the municipal debt market. This and the fact that they collect a substantial proportion of their own revenue, places the metros in a better position to meet their constitutional imperative of providing services to their residents, than the smaller and rural municipalities (Van Ryneveld, 2006). He further asserts that in the metros, as well as in the richer non-metropolitan cities, there is in addition, considerable cross-subsidization of poorer households out of locally generated revenue.

To this end, Wittenberg (2003) alludes to the fact that without the requisite fiscal resources, decentralization of administrative and legislative responsibilities will most likely, lead to unsatisfactory outcomes. In particular, only some municipalities can actually realize the positive effects that borrowing can have on service delivery for their citizens (Klaus et al.,

2008, page 37). This certainly undermines the post-apartheid government's prerogative of extending basic services to all citizens across the full breadth of the Republic.

2.3 The Structure of the overall debt markets in South Africa

Similar to business enterprises, governments issue debt to pay for expenses incurred on an ongoing basis as well as to finance major capital projects. Government debt includes issues made by a sovereign state as well as local governments (OECD, 2014). Debt is broadly categorised into private debt and public debt, where private debt comprises both bank and non-bank loan obligations, i.e. lending is not securitized. Public debt generally covers all debt instruments that are (freely) trade-able on a public exchange or over-the-counter (Kale & Meneghetti, 2011). Apparently the structure of the financial markets in South Africa is more developed and sophisticated than that in other developing countries and as such, it is highly regarded internationally because it boasts a strong regulatory and legal framework (Young, 2013).

South African organized formal capital markets comprise the JSE limited (which acquired the Bond Exchange of South Africa (BESA) in 2009, the Alternative Exchange (AltX) and the South African Futures Exchange (SAFEX). The AltX is a division of the JSE, currently the largest stock exchange in Africa, and attracts a wide range of small and medium-sized high growth companies (Young, 2013). The most important division of the capital markets is that of primary markets, in which new stock or bond issues are made and secondary markets, in which previously issued stocks and bonds are traded. The importance of the secondary market derives from the fact that its existence increases the willingness of investors to provide funds in the primary markets (that is, it provides liquidity) (Hassan, 2013).

The main entities seeking to raise long-term funds on the primary market are governments and business enterprises (Hassan, 2013). Governments tend to issue only bonds whereas businesses often issue either equity or bonds. In South Africa, government borrowing consists of issues made by the central government and local governments. Provinces, although authorised to borrow, have been precluded from borrowing to finance capital expenditure, due to concerns over the low level of provincial own revenues (Savage, 2008).

Ojah & Pillay (2009) provide an overview of the South African capital (debt) market structure over the period 1980 to 2006 below.

Table 1 : Distribution of economic entities listed on BESA

Company Name	No. of debt issues	No. of debt issues	No. of debt issues	No. of debt issues	Total issues	% of total issues by issuing group
	1980-1990	1991-1996	1997-2000	2001-2006	1980-2006	1980-2006
Central government	4	13	5	102	124	26,33%
Municipal bonds	0	0	0	4	4	0,85%
State-owned enterprises	8	4	0	4	16	3,40%
State-owned banks	0	2	1	2	5	1,06%
Water authorities	1	1	3	9	14	2,97%
Corporate sector	0	1	2	305	308	65,39%
Total	**13**	**21**	**11**	**426**	**471**	**100,00%**

From Table 1 above, it is clear that up until 2000 a significant portion of the capital debt market was dominated by the central government and state-owned enterprises. From 2001 the profile of the public debt issues changed significantly in favour of businesses and financial services companies. The debt issued by municipalities, however, remained fixed over the period.

The banking industry (private debt) which is regulated by the South African Reserve bank (SARB) is dominated by four local banks: Nedbank, ABSA, First Rand and Standard Bank, has become highly competitive, with the re-entry of some experienced foreign banks, having left at the height of the anti-apartheid struggle in the 1980. In addition to the above-mentioned bank, Capitec made a significant entry into this retail space. It has made remarkably quick progress in gaining a share of this market, especially among the previously unbanked (Young, 2013). The non-bank private debt market comprises development finance institutions such as the Development Bank of Southern Africa (DBSA) and the Land & Agricultural Development Bank of South Africa, and these institutions focus their loans on support for infrastructure and developmental projects (Young, 2013). Other non-bank private debt markets contain finance firms, microfinance institutions, captive finance firms and their likes (in the form of trade credits and leases).

2.4 Structure of the Municipal debt market in South Africa and the Regulatory environment

Other than intergovernmental transfers and own-source revenues, the third funding source for both growth-enhancing and backlog-reducing infrastructure need is debt capital, through bank credits (the private debt market) and municipal bonds (the public debt market). According to Van Ryneveld (2006), the broad goal in financing municipal infrastructure, both urban and rural, has been to create independent, financially stable, self-financing municipalities able to borrow from the private financial sector on a sound basis. Klaus et al. (2008) compared the sub-national borrowing market in South Africa with that of other developing countries and found that the South African market is highly developed in these areas.

Firstly, they found that municipalities can and do access capital markets on their own merits to finance infrastructure investment and have a long history of doing so, whereas in other countries, the sub-national entities are still largely reliant on the central government. In-fact Brown et al. (2013) noted that since 2005, activity in the municipal debt market has risen rapidly, with long term borrowing particularly increasing significantly in the run up to the 2010 FIFA World Cup. As noted, however, the bulk of the municipal borrowing is concentrated on the metros as these are perceived to be most creditworthy. Secondly, unlike other developing countries, intergovernmental transfers are rather stable and predictable, thereby affecting municipalities' planning reliability Freire & Petersen (2004). To the extent that long-term borrowing and lending, as suggested by the same authors is dependent on long-term predictability, these factors are reasonably adequate to promote municipal borrowing.

The analysis of Klaus et al. (2008) identifies the prerequisites for the viability of sub-national borrowing as; a well formulated and comprehensible regulatory framework, the need for competitive lending institutions (both public and private) on the supply-side and lastly, credit-worthy municipalities on the demand-side of the borrowing market.

2.4.1 The Municipal Finance Management Act (MFMA) of 2003

Klaus et al. (2008) assert that ideally, a regulatory framework should facilitate borrowing by sub-national entities by allowing these entities to engage on their own with financial markets to finance their projects. Further to that, the framework should dictate rules that provide lenders with *predictability, clarity* and *confidence* when engaging in sub-national lending. Importantly, such a framework should regulate potential crises that may result from over-borrowing for example, and also provide ways of preventing the occurrence of financial crises (Klaus et al., 2008). For the municipalities to be able to borrow from the financial markets and to do so at reasonable rates, lenders need to be assured of repayment (Freire & Petersen, 2004).

This can be achieved through the national government guaranteeing repayment of the loan, if local government finances are not convincingly rigorous as perceived by the markets (Van Ryneveld, 2006). Mantsho & Blaauw (2009) commend the South African government's approach to avoid providing any sovereign guarantees of sub-national government loans. To this end, authors such as Makgetla (2007) noted how providing these guarantees led to the national government inheriting huge fiscal deficits in 1994, with the homelands having contributing significantly to the deficits. They were able to borrow with both explicit and implicit guarantees from the then South African government (Van Ryneveld, 2006).

Plekhanov & Singh (2007) argue that the South African sub-national borrowing market is controlled through a co-operative approach between the various spheres / tiers of government. This legal framework uses an ongoing negotiating process between the various levels of government. The strength of this approach is that it raises awareness among local governments about the macroeconomic implications of their budgetary choices, whilst not automatically implying a central government guarantee for sub-national borrowing (Plekhanov & Singh, 2007). Contrary to this assertion, Klaus et al. (2008) argue that the South African legal framework governing sub-national borrowing lies somewhere between a co-operative approach and one that is market-based.

Whilst agreeing to the co-operative component as noted by Plekhanov & Singh (2007), Klaus et al. (2008) argue that aspects of a market-based approach are evident when noting that municipal debt limits are authorized by a Municipal Council, with no perceived chance of central government bail-out, in the case of a default (at least in principle). With the

abandoning of *explicit* national government guarantees in 1994, local governments are expected to borrow on their own merits (Freire & Petersen, 2004). Unfortunately the removal of this financial back-stop, has created uncertainty regarding the credit-worthiness of the newly-created municipalities. Furthermore, the demarcation process under the Municipal Demarcation Act of 1998, resulted in the amalgamation of wealthier and poorer regions, thus calling into question the stability of the fiscal strength of all municipalities, for example, by depressing ratios of revenue to population (Klaus et al., 2008; Freire & Petersen, 2004). To the extent that long-term borrowing and lending depends on being able to predict the future, the increased (across the board) uncertainty has dampened private investors' willingness to provide long-term funds (Klaus et al., 2008).

A period of about 10 years went by during which sub-national borrowing was effectively un-regulated, whilst extensive stakeholder consultation following the 1998 White Paper on Local Government, took place. The end result was the enactment of the Municipal Finance Management Act of 2003 (MFMA), which together with other pieces of legislation such as the Municipal Structures Act (1998), the Municipal Systems Act (2004) and the Municipal Property Rating Act (2004), forms the foundation of the new local government system (Klaus et al., 2008). It became the all-important piece of legislation that filled the regulatory gap that emerged from the abolishment of national government guarantees, insofar as the issue of financial emergencies. According to Freire & Petersen (2004), the MFMA has three key parts:

Financial management : The Act regulates the *budgeting*, *accounting*, *financial reporting* and *supply chain management* of local governments, requiring clear and consistently formatted information about municipalities' financial status. In addition the roles and responsibilities of all the relevant stakeholders, for example, the Municipal Council etc. are clearly spelt out, thus removing any ambiguities that may exist. By dealing with information asymmetries, the Act increases transparency and hence increased efficiencies.

Borrowing : The Act regulates short- and long-term borrowing by ensuring that long-term debt be used for capital expenditure, whilst limiting short-term borrowing to cash flow management within the financial year. If there is a mismatch between the economic lifespan of a financed project / asset and the credit maturity, then there is an increased risk of under- or over-borrowing (Klaus et al., 2008). They further noted that this has the un-desired effect of prohibiting borrowing for maintenance since maintenance of capital assets falls under the

operating budget. So in essence, a municipality has to mobilise own resources to cover the maintenance of infrastructure.

Financial emergencies : The Act creates a process, including an agency within the National Treasury, to deal with municipalities in financial crises. This effectively increases certainty, predictability and confidence in the municipal debt system that should positively impact on investment decisions by lenders.

To this end, it can be surmised that the Act does go a long way in achieving the aims of regulation that addresses the issue of information asymmetries created through uncertainty, and hence increases confidence in the municipal debt market. According to Klaus et al., (2008), the regulatory framework does provide an enabling environment that supports sub-national borrowing. Their findings however, further revealed an interesting phenomenon; i.e. that despite the removal of explicit guarantees, there is a general perception that there is an *implicit* guarantee that might apply should a metropolitan municipality default on its debt obligations. The too-big-to-fail (TBTF) phenomenon seems to apply to the metropolitan municipalities in South Africa, thus creating implicit bail-out expectations (Klaus et al., 2008). This implicit guarantee, no doubt introduces a tinkle about moral hazard on the side of the municipalities. One would therefore expect rational creditors to factor this lingering information cost in their required return when lending to municipalities. Yet, in all fairness, it can be argued that the design of any financial regulatory system can only be tested in times of financial crises.

2.4.2 The demand-side of the municipal debt market

The demand-side of the municipal debt market refers to the municipalities, as they are the ones responsible for infrastructure service delivery. The credit-worthiness of the municipalities, defined as the likelihood that a borrower may default on their obligations, is an important demand-side requirement for municipal borrowing (Klaus et al., 2008 & Freire & Petersen, 2004). A good or bad credit rating, as determined by a municipality's credit-worthiness, is important in attracting lenders. Determinants of a credit rating reflect both the economic and fiscal health of the sub-national entity (Palumbo, Shick & Zaporowski, 2006). It is in the stability and predictability of a municipality's income revenue that these factors

are reflected, irrespective of whether the funds are transfers from the central government or internally-generated (Klaus et al., 2008, Freire & Petersen, 2004).

Another important factor influencing sub-national borrowing, is the size of a municipality's budget, as logic dictates that bigger cities tend to have higher amounts of debt in absolute terms. The reasons include the fact that a large budget size is attractive to lenders due to lower transaction costs, and the implicit bail-out expectation means that the metros are seen as relatively safe (Klaus et al., 2008). As previously mentioned, the bulk of borrowing by South African municipalities is concentrated on the few, but bigger municipalities, with many other municipalities not having access to any form of private capital. The analysis of Klaus et al. (2008) about the factors that underlie the demand constraints revealed some interesting facts. Although a good credit rating and a municipality's budget size, rank amongst the most important demand-side requirements, for the reasons outlined above, they are not the most critical factors.

Firstly, the amalgamation and demarcation process together with the urban migration phenomenon outlined above, resulted in wage distributions that impacted negatively on some municipalities' fiscal health. For example, the relative size of a municipality's tax revenue would reduce drastically, whilst costs resulting from increased demand for social benefits would increase (Palumbo et al., 2006), as poor and / or unemployed "migrants" from a former homeland are integrated into a former whites' only administrative area. They contend that a decline in the financial health will adversely impact a municipality's creditworthiness and thus, its credit rating. For this reason, Klaus et al., (2008) suggest that a municipality in this position, whilst wishing to borrow, will not want a credit rating.

They further suggest that even well-performing municipalities may wish to borrow, but not be willing to incur the costs associated with obtaining a rating. Secondly, under the Basel II regulatory framework, most banks use internal risk models to determine a borrower's risk profile and as such, have no need for a credit rating when taking the decision of whether to lend to a municipality or not. Thirdly, the evidence presented from the study conducted by Klaus et al., (2008) suggest that budget size and / or higher loan volumes does play an important role in a metropolitan municipality's engagement in borrowing. Of the sampled local municipalities, budget size was not an important influencing factor.

These points highlight the fact that, much as a good credit rating and a large budget size are important demand-side requirements, there are other, more critical factors at play. Factors

such as the *lack of capacity*, both in terms of financial management and technical capacity, *weak income generation, insecurity and lack of predictability of future income stream* and lastly, a *conservative attitude towards borrowing*, were cited as the major constraints on the demand-side of the sub-national borrowing market in South Africa (Klaus et al., 2008, Freire & Petersen, 2004).

2.4.3 The supply-side of the municipal debt market

The supply-side is on the other hand, made up of both public and private lenders. According to Klaus et al., (2008) the supply-side requirements for a functioning sub-national capital market, are *efficient lenders* and *innovative financing* instruments. Municipalities in South Africa have a long standing relationship with the major commercial banks, wherein the banks have administered their accounts and lend money to the municipalities. In addition to the private banks, the Development Bank of Southern Africa (DBSA), a public lender with a clear developmental mission, has played a major and dominating role in financing infrastructure service delivery (Klaus et al., 2008). With the national government being its sole shareholder, the DBSA as a financial institution, is exempt from some of the capital adequacy requirements to which other financial institutions are subjected.

It is for this reason and other exemptions that the DBSA is able to perform its fundraising role for a lot less, thus it is (theoretically) able to lend to municipalities at cheaper rates (Mantsho & Blaauw, 2009). Unfortunately this has resulted in the DBSA being viewed negatively by private lenders in general. Within the context of decentralization, other public lenders such as the International Finance Corporation (IFC), a member of the World Bank Group, offer currency loans and capacity building to sub-national entities, without any sovereign guarantees (Klaus et al., 2008). The IFC encourages private sector development (PSD), as an initiative to promote economic growth and reduce poverty in developing countries by building private enterprises and competitive markets that are stronger and more inclusive (Worldbank, 2012).

As an alternative to bank credits, issuing municipal bonds means that the municipalities are able to finance critically needed municipal infrastructure with domestic private capital, rather than through sovereign borrowing by national governments (Mantsho & Blaauw, 2009). The

municipal bond market in South Africa is not new. Prior to 1994, municipalities issued bonds under a prescribed investment regime, in which institutional investors such as Pension Funds were required to hold a portion of their investment portfolios in government assets (Klaus et al., 2008, Mantsho & Blaauw, 2009, Van Ryneveld, 2006). According to Mantsho & Blaauw, (2009), the vibrancy of this municipal bond market was questionable given that there was no secondary market and no need for credit ratings either, as private investors did not see the need for the credit analyses of municipalities. The post-1994 municipal bond market is emerging in the context of no prescribed asset requirements, no national government guarantees and certainly no tax benefits for municipal bondholders (Van Ryneveld, 2006). The new conditions have created uncertainty that is resulting in the role private lenders play in the market diminishing (Mantsho & Blaauw, 2009).

According to Klaus et al. (2008), the role of public lending institutions in the sub-national debt market is two-fold: Firstly, they should target borrowers that are unable to borrow in formal private capital financial markets with usually higher interest rates. Secondly, they are expected to initially boost capital markets and crowd-in private lending institutions. They further note that the problem with concessional lending with terms that are substantially more generous than market-determined loans, for example, that are achieved through lowering interest rates below market rates, is that there is the danger of crowding-out private financial institutions. The issue then becomes the extent to which public lenders play a beneficial role in ensuring the right mix of both private and public actors that will create a self-sustaining sub-national financial market (Klaus et al., 2008, page 92).

2.5 The competing and / or complementary relations between public and private debt markets in South Africa

Freire & Petersen (2004) had noted that not only was the municipal debt market stagnating, the entire financial market's structure was becoming steadily de-securitized. This observation was made despite noting that unlike many other developing countries, not only does South Africa have an unusually high number of actors on the financing side, it also has an unusually high level of liquidity in this sector (Freire & Petersen, 2004, Klaus et al., 2008, page 109). A closer look at the tension that has risen between the private and public lenders in the municipal credit market, has brought the role that the DBSA plays into question. As

envisaged in the White Paper on Local Government (1998), both private and public lenders should complement each other, but as per the findings of Klaus et al. (2008), the lenders are actually competing and targeting the metros and the next top-rated municipalities. They argue that this is justifiable in as far as the private lenders are concerned, given that lending to these municipalities is less risky and the scope for profitability is higher due to the large amounts of borrowed capital. The DBSA however, cannot justify these competitive practices on the basis of this line of reasoning.

The DBSA justifies its larger market share of this segment on the grounds that the government requires that the bank be self-sustaining and in order to do so, it has to earn high yields. It further claims that the yields allow it to give subsidized loans to the lower capacity municipalities (Klaus et al., 2008, page 100). Whilst the terms offered to borrowers are favourable, this practice is essentially crowding-out private lenders as they generally cannot match the rates the DBSA offers. This trade-off (being self-sufficient and funding socially desirable investments) has according to Klaus et al. (2008) created a conflict for policy-makers who are keen on creating a borrowing market with private players, whilst at the same time wanting to invest visibly and quickly to alleviate the accumulated infrastructure backlog.

2.5.1 Comparative advantages of bank debts and bonds

Klaus et al. (2008) noted that while bank credits are the common municipal borrowing financing instrument in South Africa, South African municipalities, post-1994, are reluctant to issue bonds. This is in contrast to pre-1994, when issuing bonds was a common instrument for municipal financing. The need to complement borrowing from banks by facilitating the development of a viable public security market can be justified by the benefits of increased competition and diversification that come with an increase in the supply of capital. This is reflected in a lowering of the overall cost of capital (Ojah & Pillay, 2009).

In addition, bond issuance with its many disclosure requirements, is seen as having a positive influence on local governance in terms of enhancing transparency and accountability (Klaus et al., 2008, page 87). Whilst the monitoring function required to reduce agency costs associated with such transactions is duly performed by both banks and investors in bonds, the public character of bonds induces sub-national entities to live up to higher standards of public

disclosure. In theory, this aspect should enhance the pricing process of secondary bond markets (Klaus et al., 2008) as well as act as a catalyst for further investment and increased liquidity of the bond market (Leigland & Thomas, 1999). A major disadvantage with bonds is that they tend to have higher fixed costs of issuance than bank loans. These costs accrue for road-shows, administration, costs of acquiring a credit rating and listing fees at the JSE, making bonds more attractive to the metros that are better suited to spread the fixed costs over a typically bigger loan amount. This means that it becomes cheaper for a smaller municipality to borrow from a bank than to issue a bond (Klaus et al., 2008).

Type of Issue / Level of security : Given the need that creditors have to know what remedies are available in the event of default, the type of debt instrument is best approached by examining the kinds of guarantees (collateral) that may be given by a municipal borrower. According to Freire & Petersen (2004), the fundamental distinction in classifying municipal debt is whether the sub-national government is relying on its taxing power and other general revenues to back the loan obligation (i.e. General Obligation or "Balance Sheet Obligation") or when the obligation is limited to a particular revenue source to which the general sub-national government credit is not pledged (i.e. Revenue Obligation). In most countries, the general obligation is the most likely structure for capital expenditure for public safety, health and other similar activities that are not revenue generating.

The revenue obligation would most likely apply to enterprises such as public utilities such as water and sewer, electricity distribution, local toll facilities, local ports and terminals (Freire & Petersen, 2004, page 51). In South Africa, it seems that municipalities tend to prefer borrowing for general obligation, as they are able to decide independently how to allocate the money raised (Klaus et al., 2008). They are able to cross-subsidize within their capital budget and this strengthens the municipality's ability to choose what kind of infrastructure to finance. The general obligation bond option gives a municipality wide discretion while subjecting its fiscal situation to bankruptcy threat and priority than the revenue bond obligation. It can therefore, be considered more disciplining of municipalities. The revenue bond, on the other hand, while tying creditors' recourse to identifiable collateral, (that is, the financed project), offers municipalities obligations akin to limited liability. Therefore, the onus is on the lender to determine whether or not the project is viable enough.

CHAPTER 3: RESEARCH METHODOLOGY

This section of the study deals with the design, population and sampling methods used in the study. The method of data collection used for the study is detailed, followed by the tools and methods used in analysing the data.

3.1 Research Design

Trend impact analysis (also known as trend extrapolation) means looking at how a conceivable driver of change has developed over time, and how it is likely to develop in the future (OECD, 2007). The driver of change in this case, is the entire overhaul of the political system in South Africa in 1994 together with the implementation of progressive legislation in the form of the Municipal Finance Management Act of 2003 (MFMA) that regulates sub-national borrowing in the country. This study is quantitative in nature using basic descriptive statistics to establish underlying trends. There are qualitative aspects to it, such as informal discussions held with municipal staff and newspaper articles and reports read on the topic.

3.2 Population and Sample

3.2.1 Population

The data used for the study was drawn from listed debt securities as well as the unlisted debt obligations of the municipalities. The listed debt securities include corporate bonds and non-corporate bonds, of which municipal bonds are a component, albeit not as significant, as illustrated by Ojah & Pillay (2009). Essentially the split is between conventional bonds and inflation-linked bonds under both types of bonds as mentioned above. For the purpose of the research, information on the non-listed debt market is restricted to the debt commitments municipalities have with commercial banks as well as the non-bank institution, for example, the DBSA. The DBSA being the dominant player in this market, as stated in the literature review above.

3.2.2 Sample Size and Selection

The research is intended to analyse the investment and risk characteristics of the debt instruments available to municipalities in South Africa since 1994. As such, data was drawn (where possible) over the period starting in 1994 to the 31st October 2014. For the listed debt securities, information was obtained from *Bloomberg* and *I-Net Bridge* datasets. The information collected was trade data in respect of price and / or yield, the coupon rate, date of issue, term to maturity on the listed bonds as well as the type of bond.

For the purpose of the research, it was important to collect data across the entire listed bond market in South Africa and not focus on the municipal bond market only, since this market remains small, underdeveloped and accounts for only 2% of total government bonds listed on the JSE (National Treasury, 2011). A total of 391 records of listed debt securities was collected, 241 of which were corporate bonds and 150 non-corporate bonds. The corporate bonds were made up of 173 conventional and 68 inflation-linked bonds. The split of the non-corporate bonds, was made up of 133 conventional and only 17 inflation-linked bonds. The table below summarises the listed debt information.

Table 2

Sample size of Listed debt			
	Conventional bonds	**Inflation-linked bonds**	**Total**
Corporate Bonds	173	68	241
Non-corporate Bonds	133	17	150
Totals	**306**	**85**	**391**

For the non-listed / private municipal loan obligations, information relevant to the research was obtained from the Municipal Annual Reports as tabled on the National Treasury website. The Intergovernmental Fiscal Review (IGFR) reports were used to complement the information from the Annual Reports. Interest rates such as prime lending rates by banks and other relevant rates such as the 3-month deposit rate used for the estimation of the liquidity of these loan obligations, were obtained from the South African Reserve Bank (SARB) and *I-Net Bridge* datasets.

As noted earlier in the literature review, the bulk of borrowing by municipalities in South Africa is concentrated in the metropolitan municipalities (Category A), with the borrowing levels being much lower in the lower-ranking municipalities (Category B and Category C). On the basis of the World Bank (2009) report, it was observed and recommended that most district municipalities (Category C) are not in a position to borrow. According to this report, those district municipalities with more service delivery responsibility, are those that are aligned with weaker and more rural local municipalities. The recommendation is based on the assumption that such municipalities would in all likelihood, not have the financial and / or managerial ability required to meet any long-term obligations (World Bank, 2009). It is for these reasons outlined that the information on loan obligations to the banks, as used for purpose of the research, was drawn only from the metropolitan and those local municipalities, for which such information is available in the annual reports.

Given that there is a total of 283 municipalities in South Africa, it seemed beyond this project's resource capacity to collect the data for the research from each municipality. We thus obtained the debt obligations of two most dominant (in terms of volume of external capital sourced by municipalities) metropolitan municipalities and two local municipalities, the names of which have been withheld due to the sensitivity of some of the data items. The data from the metropolitan municipalities obtained from the Annual Reports and IGFR reports was more comprehensive in the sense that it covered a longer time period and was more detailed in terms of the following characteristics, that are essential for our research;

- Name of the financial institution that lent to the municipality,
- Date of the loan issue,
- Amount of the loan issue,
- Term to maturity/Maturity date,
- Interest rate/Cost of debt, and
- Outstanding loan amount as at 31st October 2014.

The 31st October 2014, being the latest date at which the data was available. The data from the local municipalities was less informative due to the fact that it did not cover a longer period and it was less detailed in terms of how it was recorded.

3.4 The Research Design

The trend analysis employed in this study uses an empirical approach to evaluate the underlying nature of the investment and risk characteristics of the debt instruments available to municipalities in South Africa. In particular, descriptive statistics in the form of measures of central tendency such as the mean, median and mode of the data sampled are used to summarise that feature of the data. Measures of variability and / or dispersion in the observed data are also summarised using statistical measures such as the variance and standard deviation.

3.4.1 Liquidity of the debt instruments

Liquidity describes the speed with which an asset can be converted to cash, without adversely affecting its price. This definition implies that liquid assets tend to be characterised as having low transaction costs, are easier to trade, and large trades of such assets tend to have a limited impact on the market price of the assets. Unfortunately liquidity is not directly observable, thus other measures are used as proxies. The most common such measure is the bid-ask spread and turnover ratios (Sarr & Lybek, 2002).

For the listed debt instruments:

The price and / or trading data available on Bloomberg and I-Net, did not have bid-ask spread data and as such the trading turnover in the secondary bond market was used as a proxy for a liquidity measure. The metric used is:

$$Trading\ Turnover = \frac{Volume\ of\ Bonds\ traded}{Number\ of\ Outstanding\ Listed\ Bonds}$$

For the non-listed loan instruments:

For the non-listed debt obligations, the liquidity spread was measured as follows:

Liquidity Spread = Prime Lending Rate – 3-Month Deposit Rate

The method assumes that municipalities are able to borrow from commercial banks and other non-bank lending institutions at the prime lending rate and any short-term (3 months) funds

are lent to the financial institutions at the 3-month deposit rate. It was not realistic to assume that the interbank rates would generally apply to municipalities.

3.4.2 Average term to maturity

For the listed debt instruments:

The average maturity of outstanding bonds on the JSE at the calculation date, was taken as the arithmetic average of the maturity lengths of the individual bonds, computed as:

$$\bar{M} = \frac{1}{N_i}\sum_{i=1}^{N_i}(Maturity\ date - Issue\ date)$$

Where N_i is the number of bonds of the *i*-th bond type, for i = 1,2,3,4 based on the 4 categories of bonds observed.

N = N_1+ N_2 + N_3+N_4 = 391

For the non-listed loan instruments:

The arithmetic average of the term to maturity for each loan advanced to a municipality was calculated as follows:

$$\bar{M} = \frac{1}{N}\sum_{i=1}^{N} Term\ to\ Maturity$$

N = Total number of loans advanced to the municipalities.

3.4.3 Rates of return (Cost of capital)

For the listed debt instruments:

For the listed debt securities, the yield to maturity (YTM) was obtained by solving the equation of value:

*Market price of the bond (P) = Periodic Coupon Payment (C) * Annuity Factor + Redemption Value (R) * Discount Factor*

For the non-listed loan instruments:

An arithmetic average of the cost of capital (interest rate payable) on each loan advanced to the municipalities chosen for the purpose of the research.

3.4.4 Perceived risk of default (Credit Risk)

In any form of credit extension, lenders and investors are exposed to the risk of the borrower failing to meet the required payments on their debt obligations. As stated in the literature review above, the removal of explicit government guarantees from the municipal debt market in 1994, resulted in the credit-worthiness of the newly-created municipalities, being called to question. The MFMA of 2003 became the all-important piece of legislation that filled the regulatory gap that emerged due to the removal of the national government guarantees. The analysis in this research looks at a simple but sensible method that compares total municipal revenue and a proxy for the relative indebtedness of the municipalities, in order to assess their general capacity to honour their debt obligations.

For the listed debt instruments:

A good measure to assess the default risk on a bond is its credit rating. The cashflow analysis in respect of the listed debt securities looks at the solvency ratios of the bond issuers to assess their risk of default. The common metric used by credit rating agencies is the ratio of the value of total outstanding debt to EBITDA. This ratio measures a company's ability to pay off its incurred debt. It gives an approximate amount of time that is needed to pay off all debt, ignoring the factors of interest, taxes, depreciation and amortization. A low ratio is desirable as it may seem to suggest that a company may take on more debt if needed.

For the purpose of this study, the values are summed across the issuing companies for which data is available on Bloomberg. The financial information required is only available for the corporate companies that have issued bonds. Also, the information available did not cover the period under review entirely. There is no such information for government and other

non-corporates that could be used in this regard. The list of companies whose information was used to calculate the metric is provided below:

Table 3 : List of Corporates issuing bonds with publicly available financial data

Name of Issuing Company	
Airports Co South Africa	Imperial Holdings Ltd
African Bank Investments Ltd	Letshego Holdings Ltd
Barclays Africa Group Ltd	Liberty Holdings Ltd
Barloworld Ltd	MMI Holdings Ltd/South Africa
Calgro M3 Holdings Ltd	MTN Group Ltd
Capitec Bank Holdings Ltd	Nedbank Group Ltd
Daimler AG	SABMiller PLC
Eqstra Holdings Ltd	Sanlam Ltd
FirstRand Ltd	Sappi Ltd
Group Five Ltd/South Africa	Standard Bank Group Ltd
Hospitality Property Fund Ltd	Telkom SA SOC Ltd

For the non-listed loan instruments:

The data from the IGFR reports in respect of municipal finance charges per annum, were compiled in a more detailed form from 2003 to 2009. There was no relevant information from 2009 to date. An extrapolation was then done, based on an estimated retrospective measure of average growth rates dating back to 1994. Based on the finance charges, an estimate for the annual amount owed to the banks by the municipalities, was derived as follows:

$$Annual\ Amount\ Owed = \frac{Finance\ Charge\ per\ annum}{Prime\ lending\ rate}$$

The prime lending rate was used as a proxy for the relative indebtedness, based on the assumption that this is the rate at which municipalities can borrow from the commercial banks (as numbering among the favoured customers of the banks).

Summary

This chapter has given an overview of the data sources as well as the various types of data used and that are relevant for this research. Thereafter a systematic description of the

research design along with an outline of the methods and calculations used to address each research question, were described.

CHAPTER 4 : PRESENTATION OF RESULTS

4.1 Introduction

Over the period of review, Freire & Petersen (2004) noted how due to the presence of a private sector lender called the Infrastructure Corporation of Africa (INCA) in the municipal debt market, private sector lending exceeded public sector lending (made up entirely of the DBSA) and how it was concentrated on the metropolitan municipalities. Since 2010, the National Treasury noted how this trend has been reversed with public sector lending exceeding private sector lending for the first time. The reasons cited for this trend reversal included the withdrawal of INCA from the market in 2009 citing declining margins due to competition from the DBSA, as well the increased risk aversion of private lending during the recession (National Treasury, 2011).

Another trend observed by Freire & Petersen (2004) was the changing nature of the municipal debt stock. Municipal securities as traded on the JSE were declining whilst loans were increasing. This trend was later confirmed in the National Treasury (2011) intergovernmental fiscal reviews. According to the report, 64% of the total municipal borrowing comprised long-term loans, whereas securities in the form of municipal bonds accounted for only 30% and short-term debt accounted for 6% of the municipal debt capital. Municipal borrowing continues to be concentrated in the metropolitan municipalities, namely, Cape Town, Johannesburg, eThekwini, Ekurhuleni, Tshwane and Nelson Mandela Bay.

This chapter contains the presentation of the descriptive analysis and the results obtained from further empirical analyses of the sample data.

4.2 Liquidity

4.2.1 Liquidity of the listed debt securities

The turnover ratio was computed separately for each of the 4 bond types in the analysis, namely: Non-corporate conventional, Non-corporate inflation-linked, Corporate conventional and Corporate inflation-linked bonds. This ratio measures the extent of bond trading in the secondary market. The higher the ratio, the more active, and hence more liquid, the secondary market. Based on the observations tabled below, the turnover ratio was much higher (as a multiple) for non-corporate inflation-linked bonds. The lowest ratio observed was for corporate conventional bonds. The reason for this could be that, because these bonds are perceived as low-risk, they are thus often prescribed and traded for their safety qualities than other bond types. For this reason, they are also retained for keeps in investors' portfolios.

From Figure 1, trading volumes for non-corporate conventional bonds seemed range-bound throughout the period of review, whilst the outstanding number of such bonds increased significantly. There was, however, an increase in the volumes traded during the currency crisis periods of 1998 and 2001 in South Africa (The explanation is provided in detail in section 4.2.2 below). The other increase is observed during the more recent global economic recession of 2008 / 2009. Further clarity on these observations is provided in Appendix A below.

The turnover ratio for inflation-linked bonds was higher than that for conventional bonds under both corporate and non-corporate types of bonds, as can be seen in Figures 5a and 5b below. The same trend of the number of outstanding bonds increasing over the period under review as well as volumes traded increasing, is observed for all bond types. The only exception is that of corporate conventional bonds in Figure 3 below, where volumes traded are decreasing over the period under observation, with a spike in the 2008/2009 period.

Figure 1 : Non-corporate conventional bonds

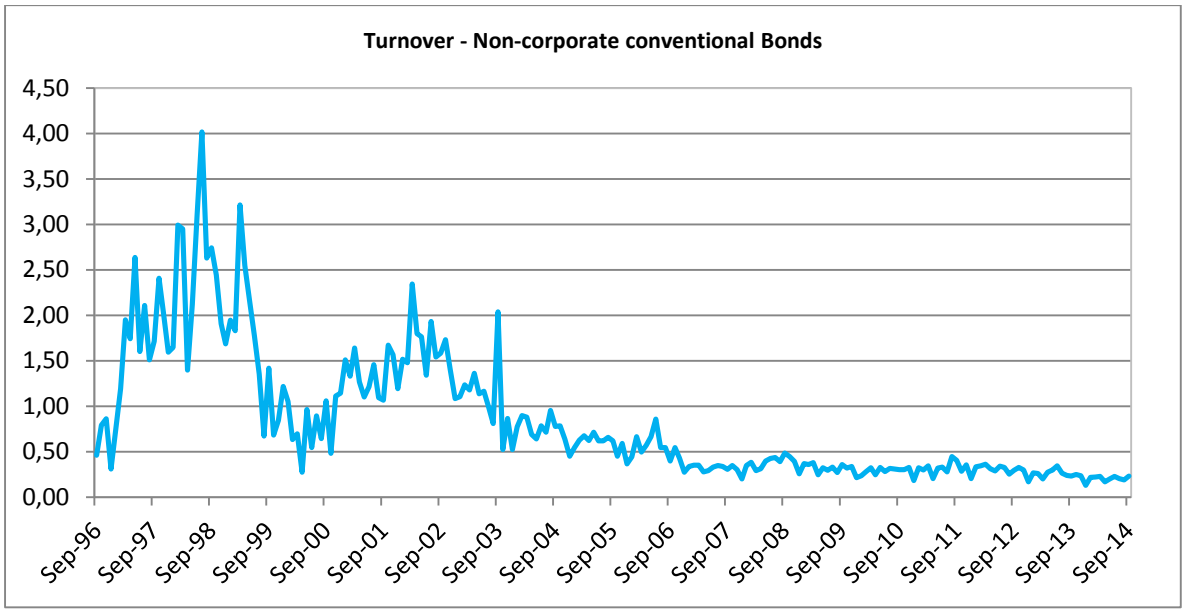


Figure 2 : Non-corporate inflation-linked bonds

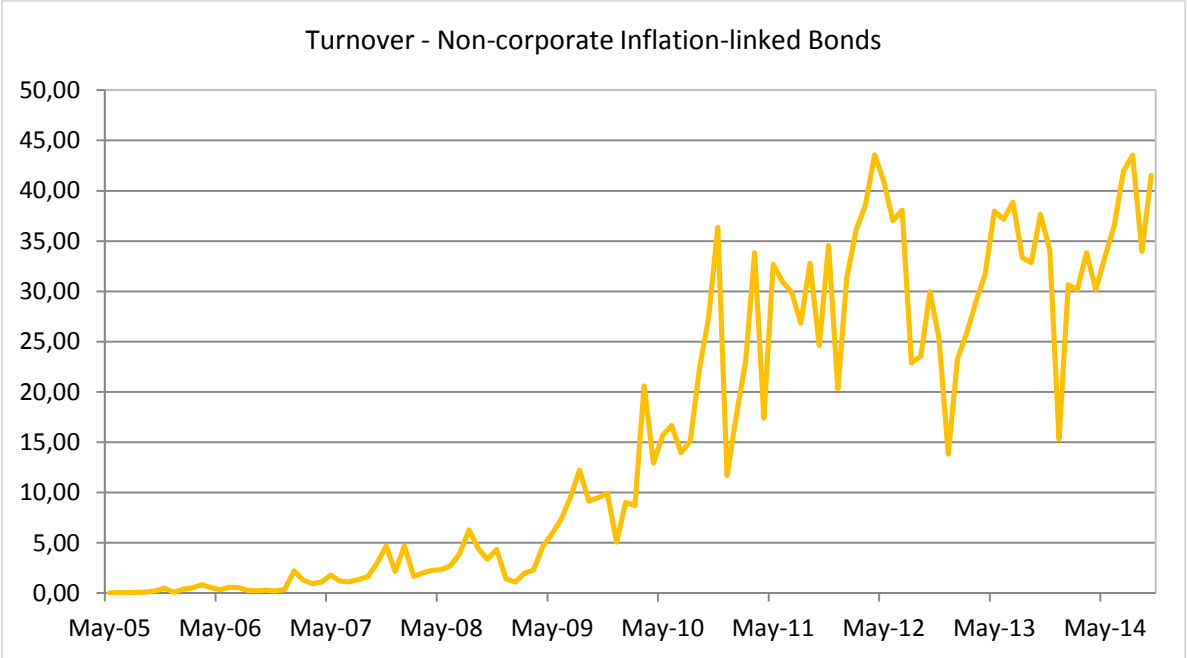


Figure 3 : Corporate conventional bonds

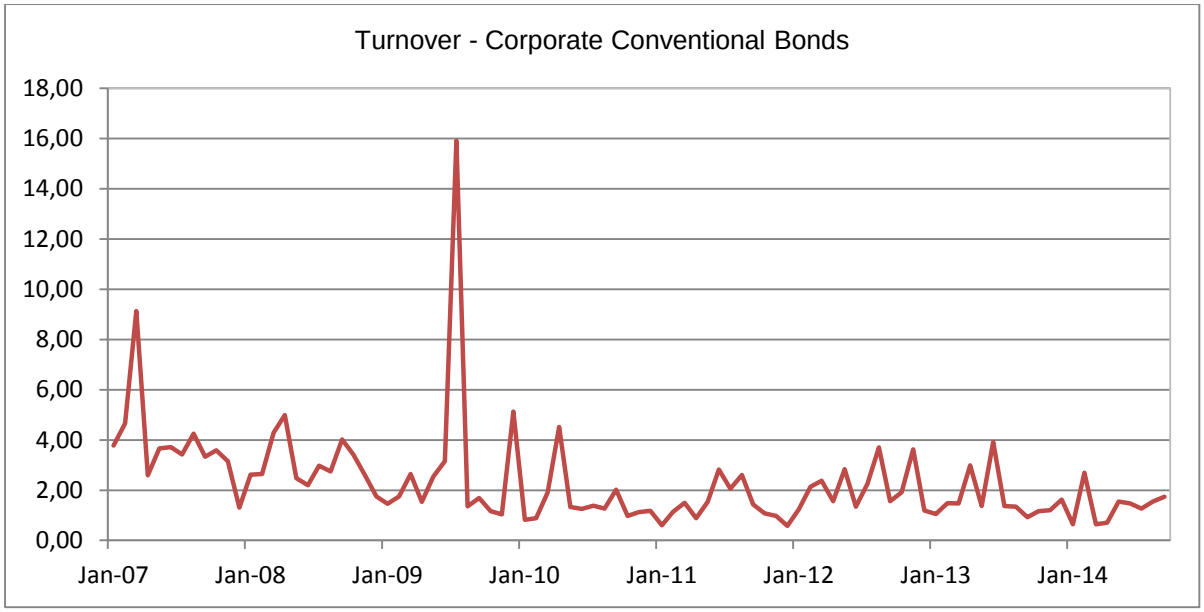


Figure 4 : Corporate inflation-linked bonds

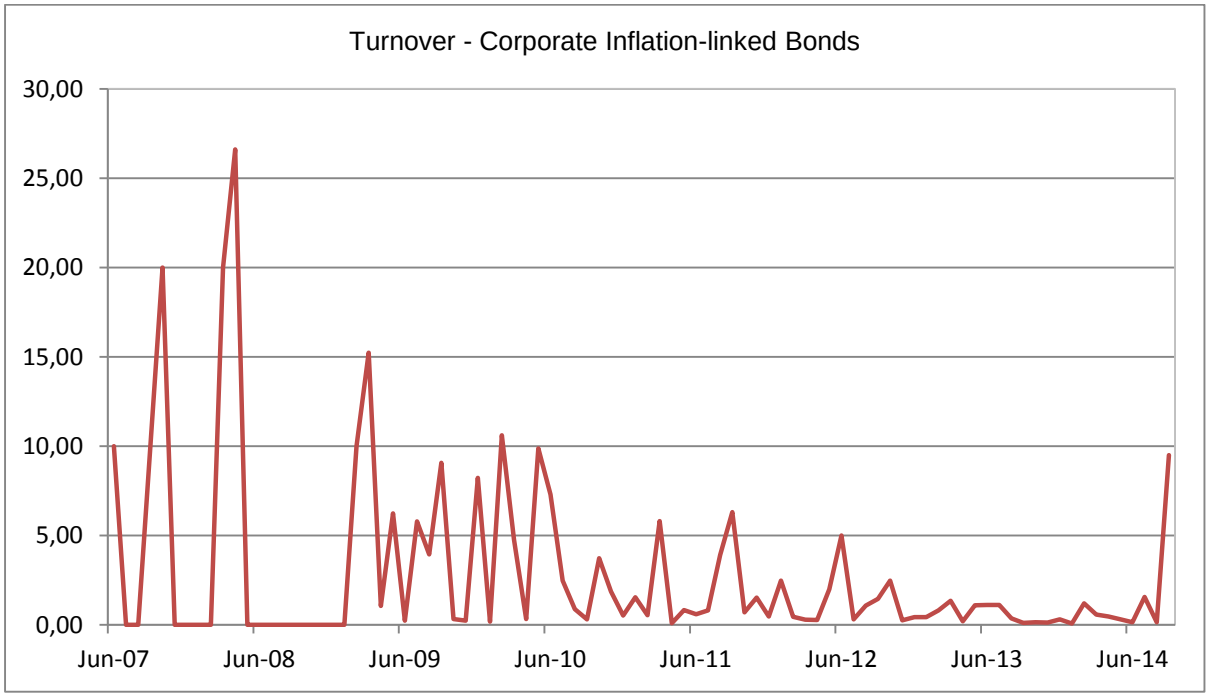


Figure 5a : Turnover ratios for linked bonds

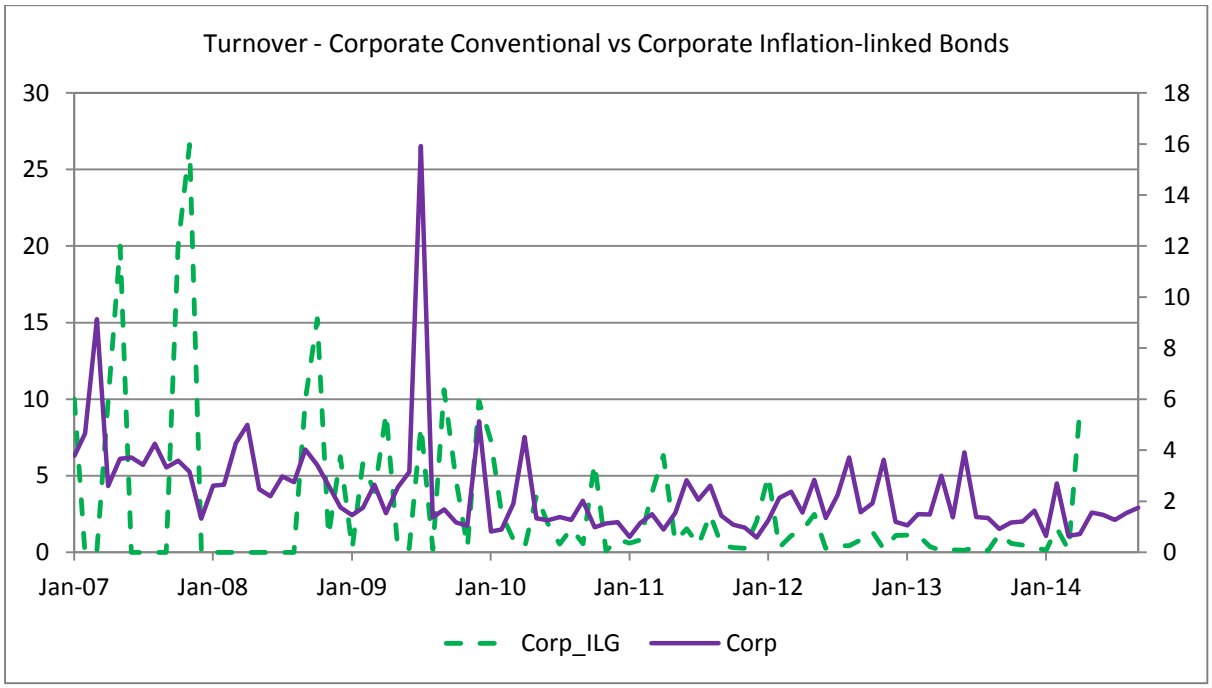
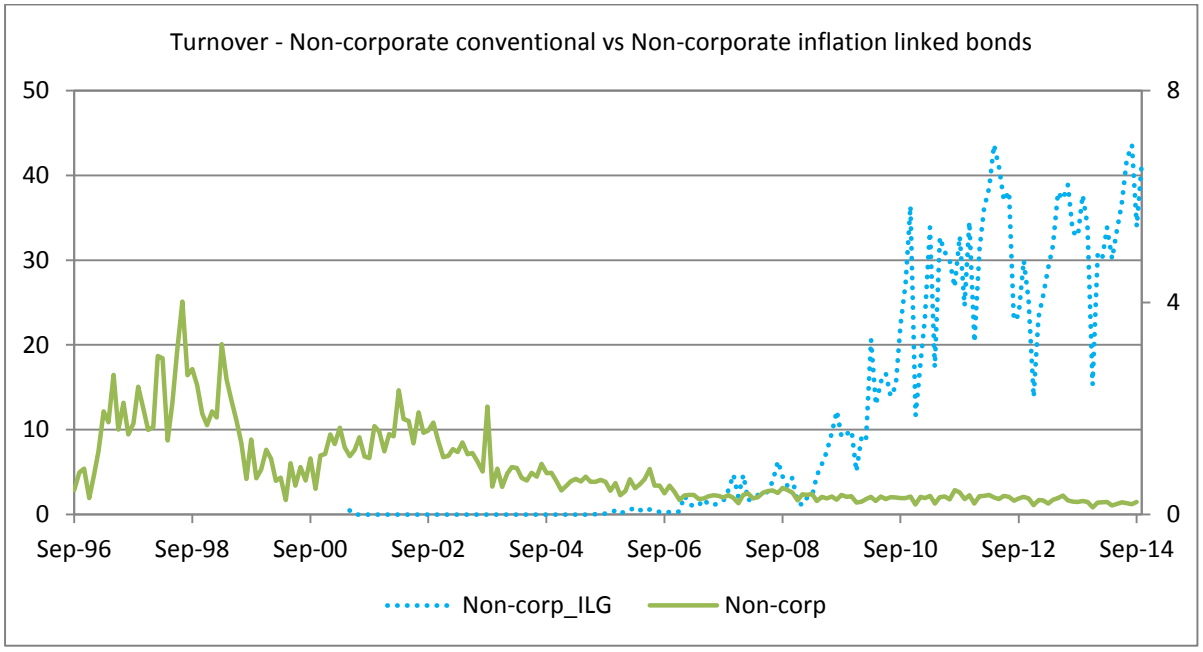


Figure 5b : Turnover ratios for linked bonds



4.2.2 Liquidity of the non-listed loan obligations

The 3-month deposit rates obtained from Bloomberg and I-Net Bridge only cover the period from 1997 as illustrated in Figure 6a below. The liquidity spread could thus, only be measured by comparing the prime lending rates with the deposit rates from 1997. From

Figure 6b below it appears as though the spread remains constant except during the 1998 global financial crisis that saw prime lending rates in South Africa reaching levels of about 25%. Except the period 1999 – 2000, the liquidity spread of banks (which proxy as a similar measure for non-listed debt obligations) hovered between 2% and 5%. With over 80% of foreign investment capital in South Africa comprising portfolio investment at the time, South Africa suffered the contagion effect emanating from the massive withdrawal of portfolio investments from most emerging markets, following a decline in the confidence of foreign investors in the economies of several countries in Asia (Stals, 1999). At that point, the spread was slightly negative at -0.13%, implying that banks' cost of funding was exceptionally high, as is the case with a liquidity squeeze.

The other sharp increase in interest rates followed the Currency Crisis of 2001, for which many reasons have been cited, such as the delay in the privatization of Telkom and the market's interpretation of the delay as a sign of a lack of commitment to economic reform (Bhundhia & Ricci, 2006). Other authors have cited the uncertainty and volatility resulting from the financial openness of the South African economy since 1994 (Mohammed, 2003).

The average liquidity spread over the period under review was found to be 3.65% with a standard deviation of 1.60%. A generally constant but positive spread implying that throughout the review period, with the exception noted above, municipalities could have borrowed from banks and other private debt market loan providers at a reasonably stable cost.

Figure 6a : Prime lending rate vs the 3-month deposit rate

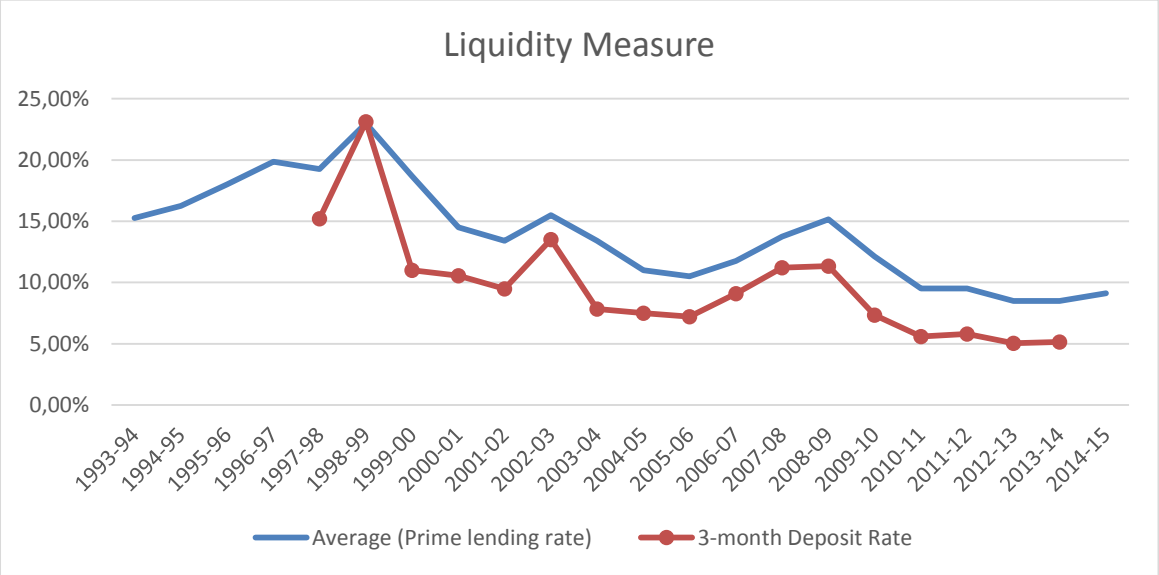


Figure 6b : Liquidity of the non-listed loan obligations



From the graphs above, an inference can be made that the higher variability as observed with the listed bonds, reflects higher liquidity. Liquidity of capital markets ensures that financial resources are allocated efficiently (Saunders & Cornett, 2011). To the extent that market participants such as non-corporate, corporate and individual investors needing consistent access to a broad set of funding and investment opportunities at fair, accurate and transparent market prices, the JSE provides such a liquid market (National Treasury, 2011). The metropolitan municipalities that have issued bonds on the JSE can reasonably be assumed to have benefited immensely from participating in such a market. The National Treasury (2011) however, bemoans the lack of a secondary bond market wherein municipal bondholders would be able to further trade these instruments. The report contends that the limited size of the municipal bond issues is itself a hindrance to the development of such a secondary market and this restricts the liquidity of the bond market in particular.

Saunders & Cornett (2011) argue that for as long as a financial institution (FI) such as a bank is sufficiently large enough to gain from the diversification of some of the portfolio risks they take on and can effectively monitor the actions of the firms they themselves invest in, then their financial claims are likely to be viewed as liquid and attractive to small investors compared to the direct investment in the capital markets. In particular, the financial claims of banks such as deposits, to the extent that they can be withdrawn immediately on demand with little price or capital value risk, have superior liquidity attributes compared to those of primary securities such as corporate equity and bonds (Saunders & Cornett, 2011 page 7).

The liquidity in the banking sector, as confirmed by the results above, has ensured that for those municipalities that consider bond issuance expensive, rates offered on term loans, remain attractive. The same observation was made by Klaus et al. (2008) and given that most municipalities in South Africa are small (i.e. Category B and C), except for the metros, this observation goes a long way in explaining the lacklustre revival of the municipal bond market.

4.3 Average term to maturity

4.3.1 Average term to maturity on listed bonds

From Table 4 below, the average term to maturity is longer on non-corporate conventional bonds than on corporate conventional bonds, but slightly shorter than that on non-corporate inflation-linked bonds. The terms on inflation-linked bonds are longer than those on conventional bonds in general. A closer look at the data shows that none of the municipalities have issued any inflation-linked bonds to date and the longest term to maturity on any of the municipal bonds is 15 years, which falls below the average of non-corporate bonds, the class in which municipal bonds fall. These bonds were issued by the City of Cape Town, City of Joburg and the Ekurhuleni metropolitan municipalities, with none of the local municipalities issuing any such bonds.

Table 4

Average Bond Maturities (in years)		
	Conventional Bonds	**Inflation-linked Bonds**
Non-Corporate Bonds	16 2/12	17 4/12
Corporate Bonds	8 7/12	11 10/12

4.3.2 Average term to maturity on non-listed debt instruments

The average term to maturity on the loan obligations of the two metropolitan municipalities chosen is 14 years, 11 months. This average falls below the average on non-conventional

listed debt securities as observed in Table 4 above. It is also lower than that on some of the bonds issued out by the metropolitan municipalities. It is worthwhile noting that the DBSA (which is a developmental government-backed financial institution) has issued loans to these municipalities, with terms as long as 20 years, whilst the average maturity for term loans issued by commercial banks is approximately 10 years. The information contained in the annual reports, was not detailed enough to isolate the term to maturity on loans issued to the majority of local municipalities. The reports detail the date at which a loan is redeemable, without explicitly stating the date at which the loan was issued.

These observations are consistent with the literature in as far as the relative bond maturities and term loans offered by banks, is concerned. The scope with which refinancing costs can be limited, can be influenced by how well the maturity of debt capital is long enough to match the cash-flow of the related infrastructure project. Klaus et al. (2008) noted that while public banking institutions can offer longer maturities, commercial banks rarely do. It was noted by Leigland & Thomas (1999) that in countries with mature bond markets, long-term bonds with maturities in the range of 25 – 30 years are offered, and these allow in particular, construction costs associated with such projects to be amortised over much longer periods.

Other benefits include widening the potential of suppliers of capital such as pension funds with their typically longer-maturing, real liabilities (Klaus et al., 2008 and Leigland & Thomas, 1999). Not only are municipalities in South Africa compelled to finance long life assets with medium-term funds, resulting in generally higher debt service costs, they are also forgoing the opportunity to attract cheap funds from institutional investors seeking to diversify their investment portfolios. This was an unfortunate observation also made by the National Treasury (2011).

4.4 Rates of return / Cost of capital

4.4.1 Yield to maturity on listed bonds

From Table 5 below, it is evident that at 8.03%, the nominal rate of return on corporate bonds is expectedly higher than that on non-corporate bonds (i.e. at 7.12%). Again at 2.68%, the real yield to maturity on corporate bonds is higher than that on non-corporate bonds. This

observation is in line with expectations in as far as explaining the existence of a corporate bond risk premium that compensates holders for the additional perceived risk of default over the risk-free rate of return.

Table 5

Average Yield to Maturity (YTM)		
	Conventional Bonds	**Inflation-linked Bonds**
Non-Corporate Bonds	7.12%	1.54%
Corporate Bonds	8.03%	2.68%

4.4.2 Cost of funds on non-listed debt instruments

From Table 6 below, it is clear that at the fixed rate of 10.58%, the average funding cost is higher on loan obligations than that observed on listed bonds. The average prime lending rate over the period of review was 13.93%, but it has been falling since reaching its highest level in 1998. This is the cost of funding for the metropolitan municipalities that in theory, should be charged favourable rates by commercial banks. The information from the annual reports was not detailed enough to extract the average funding cost for the local municipalities. On the annual reports of the local municipalities analysed, there is scanty details about long-term loans issued at rates of between 10% and 15%. Details of the issuing financial institutions and the terms to maturity, are not available. With the attendant costs associated with the acquisition of data that is not publicly available, it is reasonable therefore, to assume that the cost of funding for the lower-ranking municipalities would be higher than that payable by the metropolitan municipalities.

Table 6

Average Funding Cost		
	Fixed	**Floating spread (over JIBAR)**
Mean	10.58%	2.30%

The average JIBAR rate over the period of review was 8.56% with a standard deviation of 2.67%. The highest observed rate was 15.94% in 1999, that being the earliest date at which

the rate was tabled. As far as floating rates are concerned, the same conclusion can be drawn that the average funding cost on loan obligations is higher than that on listed bonds. As mentioned in the literature review, Klaus et al. (2008) contend that it should be easier for large sub-national entities to issue a bond, as they are better suited to spreading the costs associated with bond issuance over a typically larger loan amount. These costs unfortunately tend to be prohibitively high for smaller entities. Such entities would thus most likely resort to borrowing from banks. The analysis above confirms this observation in as far as it applies to metropolitan municipalities.

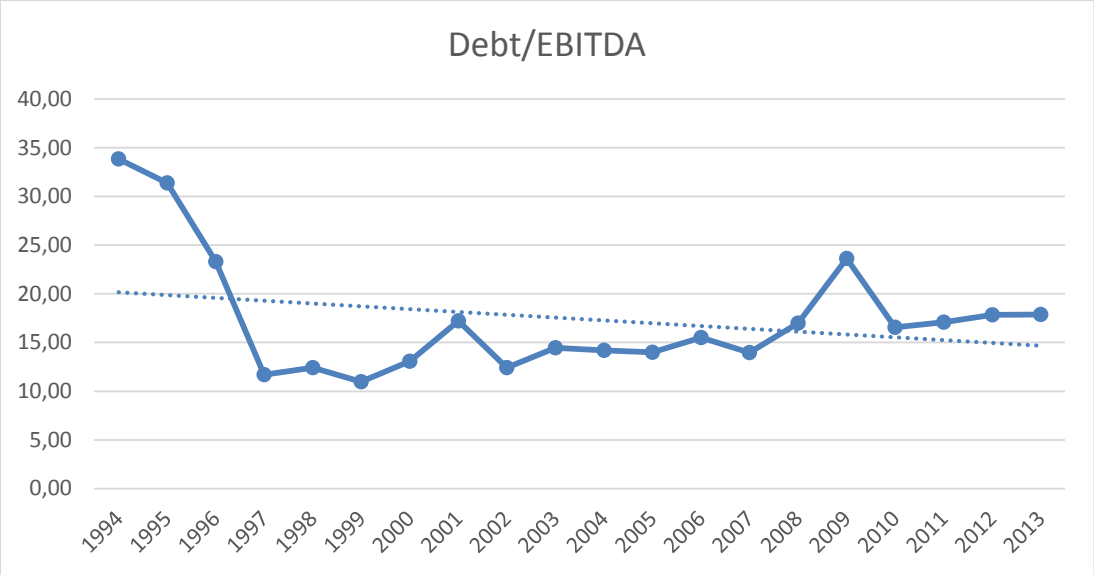
4.5 Perceived risk of default

4.5.1 Risk of default on listed bonds

From Figure 7 below, the ratio of the value of total outstanding debt to EBITDA for those listed companies that have issued bonds, starts off quite high, but drops significantly in 1996. The high value at the start of the review period, may be a function of the scanty data from which the metric was calculated. The ratio is almost range bound throughout the review period, with a spike both in 2001 and during the global economic recession of 2008 / 2009. It is worthwhile noting that the ratio is relatively high, but trending down quite significantly over the period of review. The reasons may include the fact that the sample size was very small, since data available on I-Net Bridge and Bloomberg was only in respect of a fraction of those corporates from our sample that made such information public.

From section 4.4.1 above, the cost of capital for corporates is higher than that for non-corporates. The use of this metric (i.e. debt-to-EBITDA) can be extended to the rest of our sample without any loss of generality, to suggest that it should be lower for non-corporates (i.e. treasuries and municipal debts), the class in which municipalities fall. This seems to suggest that municipalities in South Africa, are in a position to take issue more bonds if needed.

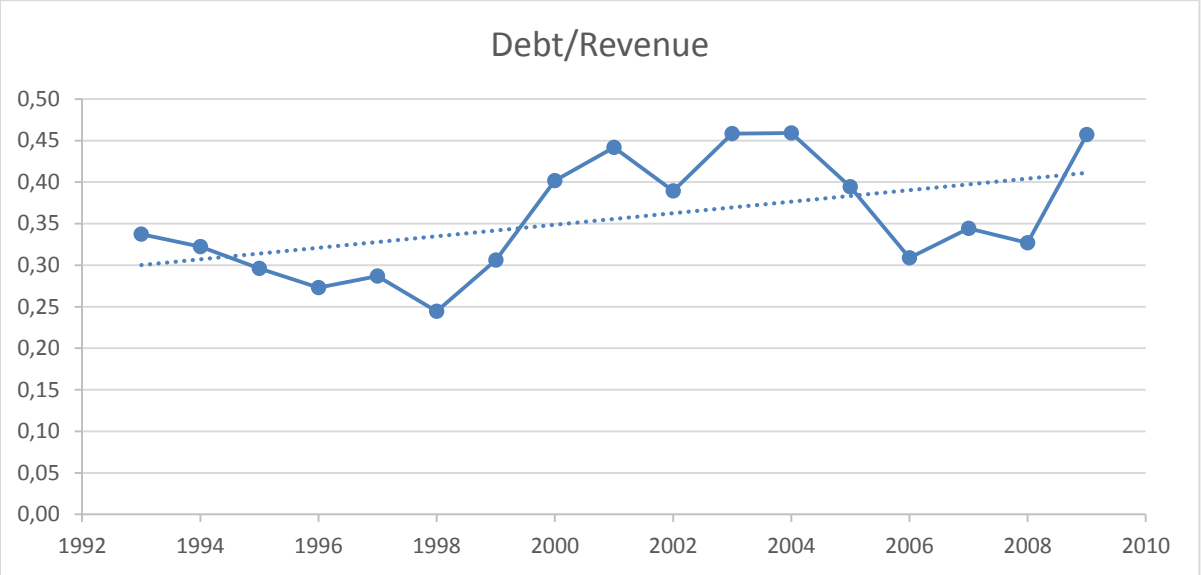
Figure 7 : Total debt to EBIDTA for the listed companies that issued bonds



4.5.2 Risk of default on non-listed debt instruments

From Figure 8 below, there appears to be a semi-linear relationship between total municipal revenue and the estimated amount owed, over the period of review. In monetary terms, the total municipal revenue is much higher than the estimated amount owed, with the (actual) rate of growth of total revenue seemingly much faster than the growth in the estimated amount owed. This is consistent with a reducing cost of funding as proxied by a falling prime lending rate over the period of review, except in 1998 when it reached its highest level. The ratio on the other hand, seems to be trending upwards, only reaching a maximum (benign) value of 45% in 2004 (following the introduction of the MFMA of 2003) and also at the height of the recession in 2009. Because of the need to extrapolate data to 1994, it remains unclear what the effect of the introduction of MFMA in 2003 had on the municipalities' ability to borrow.

Figure 8 : Total estimated amount of municipal debt to total municipal revenue



The empirical evidence in this regard seems to suggest that municipalities having not increased their borrowing in line with their revenue growth, should not be perceived as major credit risks by the financial institutions from which they borrow. Indeed the results of the analysis confirm this assertion. Of particular interest, is the observation made by Klaus et al. (2008) that municipalities in South Africa tend to prefer general obligation borrowing that does not involve the pledging of any particular assets as collateral. Typically such borrowing is seen as low-risk, and should in theory, impact positively on a municipality's creditworthiness. The issue as raised by the National Treasury in the IGFR report of 2011, is that many municipalities utilize borrowings to fund social infrastructure, which costs money to operate, but does not expand a municipality's revenue base. The report asserts that this practice does impact negatively on a municipality's creditworthiness, and to a large extent, it has reduced municipalities' capacity to incur further debt.

CHAPTER 5 : DISCUSSION AND CONCLUSION

5.1 Summary of Findings

The study was conceived on the need to understand the prevailing trend in the development of the municipal debt market in South Africa since 1994, by analysing the investment and risk characteristics of the two main financing instruments of sub-national borrowing in the country, namely, municipal bonds and bank credits.

On the question of how liquid and marketable the debt instruments are, both the listed bond market and the non-listed debt markets in South Africa proved to be reasonably liquid, thus ensuring allocation of financial resources at fair market prices. This assertion is made cautiously in light of the fact that the testing of this fair-ness was beyond the scope of the study. In as far as the municipal bond market is concerned, the lack of a developed secondary bond market has, unfortunately, undermined certain desirable aspects of liquidity such as being able to attract investors with a short- to medium-term investment horizon, who would wish to sell municipal bonds before their maturity date (Mantsho & Blaauw, 2009 & National Treasury, 2011). The liquidity of the banking sector as highlighted in section 4.2.2 above, however, seems to go a long way in explaining the interest municipalities have in financing their capital requirements using term loans.

The average term to maturity on the listed bonds was slightly higher than that observed on the loan obligations. Even though the bonds issued to date were issued with terms as long as 15 years and considering that some loans issued by the DBSA had terms as long as 20 years, infrastructure assets tend to have a longer lifespan than the lives of the instruments used to fund their acquisition. This mismatch has negative implications in as far as the cost of funding is concerned.

The yield to maturity as reflecting the cost of funding was higher on loans than that on listed bonds. As stated above, this applies to metropolitan municipalities. These municipalities seemingly benefit immensely from economies of scale as the fixed costs that accrue with bond issuance are spread over typically larger amounts of borrowed capital. For the lower ranking municipalities, the rates offered on loans have been favourable, due to the liquidity of

the banking sector and the price competition by the DBSA. This assertion is made cautiously in light of the fact that the analysis in this study of the lower ranking municipalities' financials, was undermined by the lack of data.

The low perceived risk of default, as measured by the solvency ratios in section 4.5.2 above, seems to suggest that metropolitan municipalities in South Africa should increase the levels of borrowing in line with their constitutional mandate as outlined in the literature review. The rate of growth in the municipalities' total annual review far outstripped the growth in the estimated amount owed, over the period of review. Once again, the lack of data in as far as the lower-ranking municipalities is concerned, has been a major hindrance in reaching any firm conclusion as far assessing their default / credit risk. Another area in which the lack of credible data has manifested itself, was in the study being unable to assess the impact of the removal of explicit government guarantees on sub-national borrowing. Much of the data from the annual reports of the National Treasury's IGFR was lacking, resulting in the need to extrapolate data to 1994.

To this end, it can be reasonably concluded that the study has achieved its objectives, especially in using the investment and risk characteristics of the debt instruments available to municipalities to explain the prevailing trend in the development of the municipal debt market. The study has confirmed the assertions made earlier by the studies conducted by the likes of Klaus et al. (2008), Freire & Petersen (2004), Mantsho & Blaauw (2009) and others that municipal borrowing in South Africa is stagnating, in spite of a supportive regulatory environment, a higher level of liquidity on the financing side as compared to other developing countries and the recent economic resurgence. The National Treasury (2011) noted that following a contraction in GDP in 2009, the economy grew by 2.7% in 2010 and projections made then, were of a positive trend.

5.2 Conclusion and Recommendations

Freire & Petersen (2004) lament the fact that most municipalities in South Africa lack reliable and public accounting, budgeting and financial information that investors and credit rating agencies need. They argue that this is one of the reasons there is a shift from securities to loans since loan origination itself becomes expensive as further analysis and possible

proprietary recasting of municipal financial statements are required. This lack of data manifests itself more on the local municipalities than the metros. Not only does it result with a higher cost of funding for much-needed infrastructure spend, it affects the ability to conduct proper analysis of a municipality's financial standing that could be useful in establishing credit-worthiness. The quality of data is slowly improving with each intergovernmental review, but it is still skewed towards the metropolitan municipalities. A more informative analysis could have been achieved with a bigger sample of local municipalities' information, obtained by "door-to-door" visits and interviews.

The role of the DBSA has also been questioned, especially in light of the paltry support it has extended to smaller municipalities. The National Treasury (2011) has commended the DBSA in the increasing role it now plays in the municipal lending space, but berates the crowding-out of private lenders that comes with the concessionary rates it has offered. The report together with the recommendations made by the likes of Klaus et al. (2008) suggest that the DBSA's loan book should reflect a higher appetite for risk by focusing their lending towards the smaller and low-capacity municipalities that do not have access to credit markets. Other areas that the DBSA could extend its developmental mandate, include providing technical support to municipalities to build their capacity to participate in credit markets (National Treasury, 2011).

As a way of developing the municipal bond market in order for municipalities to benefit from potentially lower cost of funding and higher maturities, Mantsho & Blaauw (2009) have suggested the introduction of tax-exemption of municipal bond income. A practice that has helped immensely in the development of the US municipal bond market. The same authors have also suggested that South Africa could follow the example of India that has set up a fund that is used to pool together the borrowing requirements of smaller municipalities and issuing a municipal bond on behalf of the participating municipalities. The development of a strong secondary bond trading market would also go a long way in enhancing the liquidity of the municipal bond market.

The infrastructure backlog inherited from the apartheid past is enormous when compared to the main sources of funding prevalent in the South African municipal space, namely, internally-generated funds as well as intergovernmental transfers. The space that borrowing can play in addressing the infrastructure investment gap, cannot be over-emphasized. What

the analysis in this study has revealed is that there is so much room for borrowing, especially for the metropolitan municipalities. Their borrowing capacity is much higher than they are exploiting and so is the potential to benefit from borrowing that is not readily available to local municipalities. The government is looking at ways of enhancing the municipal debt market by making it attractive to private investors as well as finding innovative ways of reining in local municipalities. The MFMA of 2003 goes a long way in providing an enabling environment that supports sub-national borrowing.

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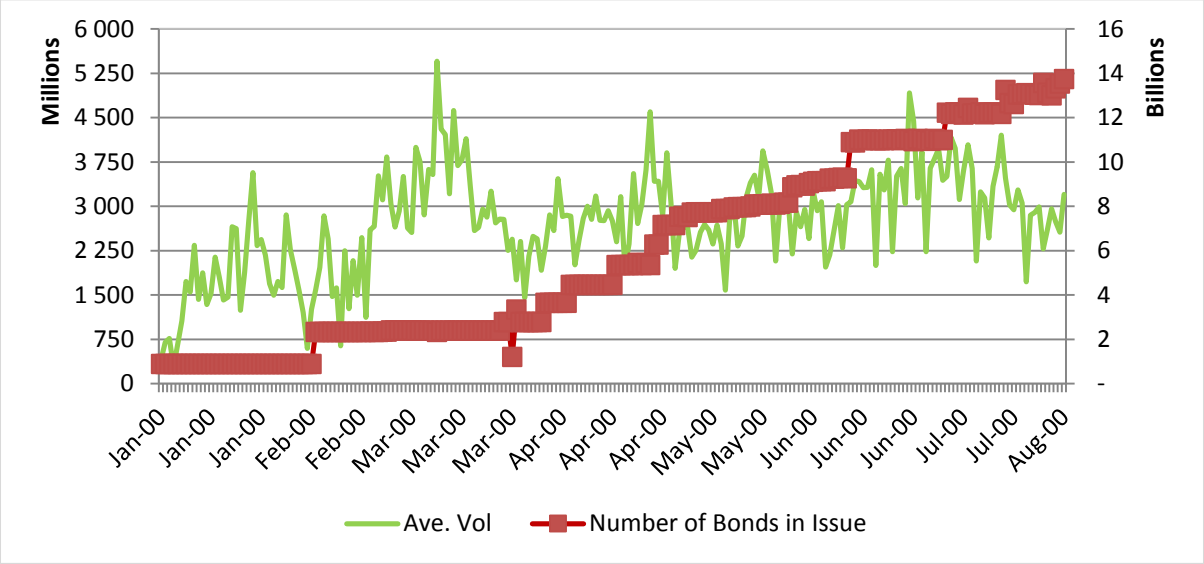
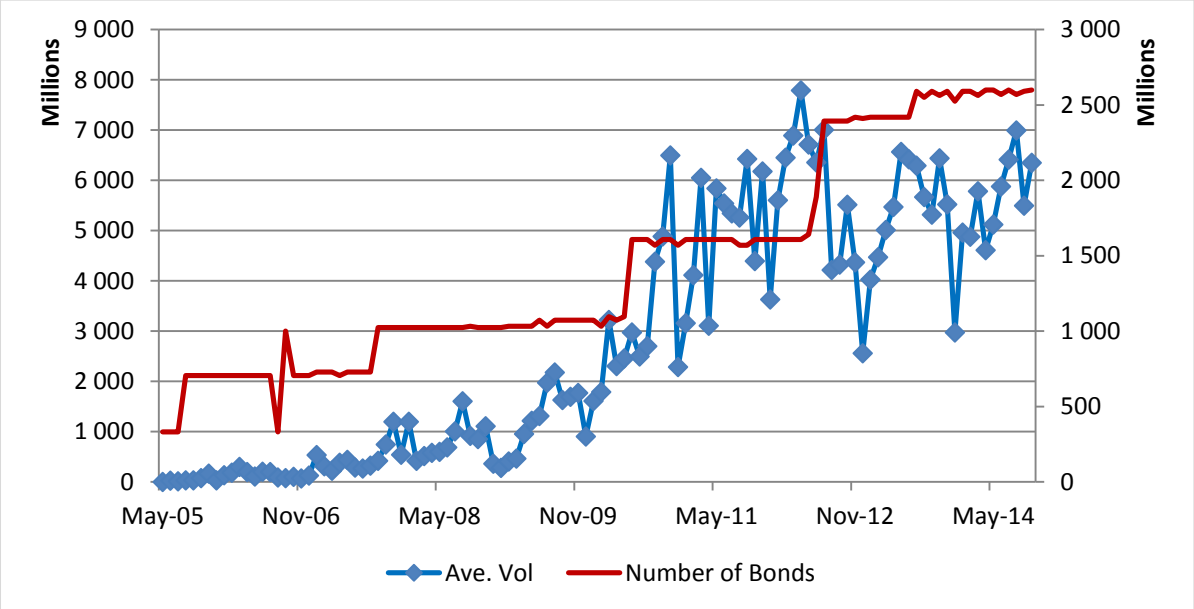
APPENDICES

Appendix A Graphs for the liquidity measures for listed bonds

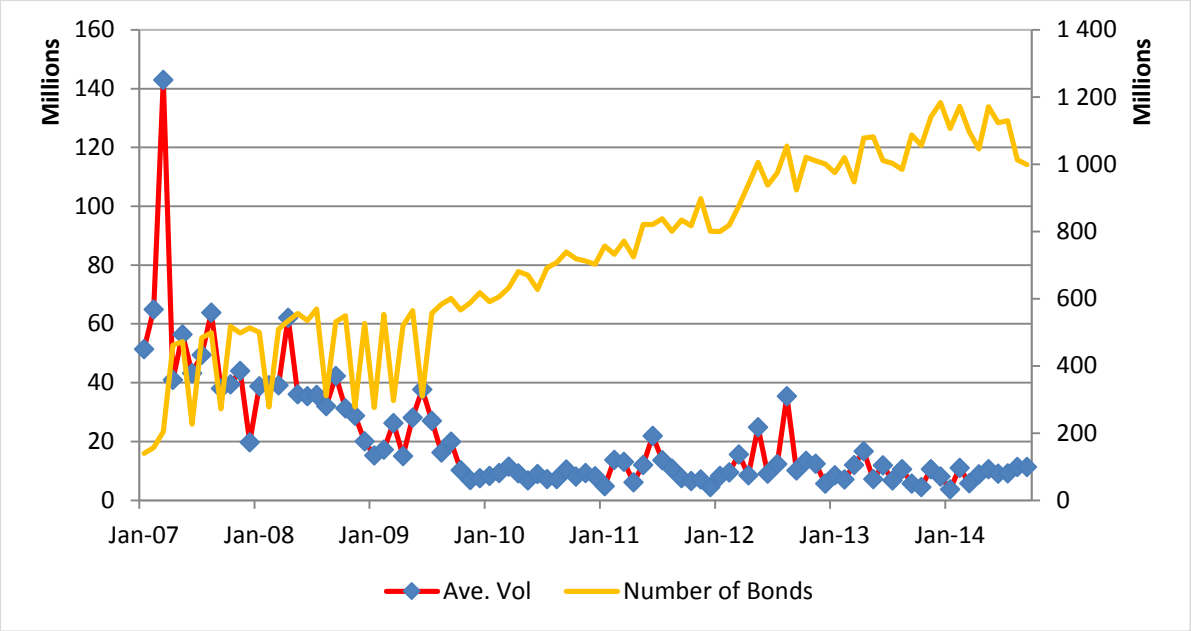
Non-corporate conventional bonds



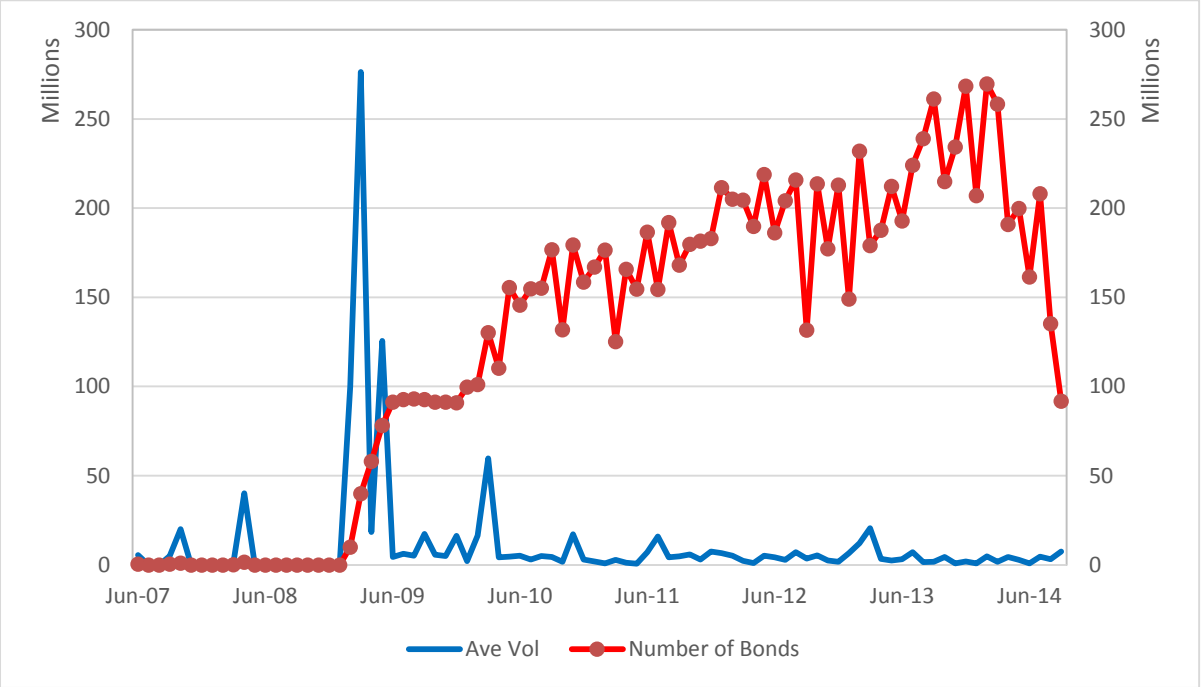
Non-corporate inflation-linked bonds



Corporate conventional bonds



Corporate inflation-linked bonds



Appendix B Graphs for the risk of default on listed bonds and non-listed loan obligations

