Is the Municipal Bond Market a Viable Option for KwaZulu-Natal Based Municipalities?

Key Words*:* Bond Market, Municipal Bonds, Sub-National Borrowing, Municipality.

JEL Classification number: R11, R12, G12

ABSTRACT

Decentralization of borrowing authority to sub-national government and fiscal sustainability at the national level are two issues in permanent tension in public financial management. On the one side of the argument, it is desirable to give sub-national authorities room for raising their own financial resources in order to finance capital investment. On the other hand, the lack of institutional capacity, history of sub-national government defaults in some decentralized systems, and the political lack of effective controls at the least give central or national governments substantial arguments to restrict sub-national autonomy.

Proponents of sub-national borrowing emphasize four benefits: (i) expansion of sub-national fiscal space for infrastructure financing; (ii) efficient and inter-generational equitable outcomes from infrastructure financing through borrowing; (iii) increased fiscal transparency of sub-national governments; and (iv) deepening of financial markets. However, while there is considerable consensus on those potential benefits, there is also wide agreement that without an effective regulatory framework, sub-national borrowing may lead to fiscal and debt crises and significantly contribute to an unstable macroeconomic environment.

The primary sources of infrastructure finance available to municipalities in South Africa at present are internally generated funds and national transfers from government. However, these are insufficient to meet the scale of infrastructure investment required by municipalities. There is thus a need for municipalities to explore ways of leveraging private finance to mobilise additional resources to fund infrastructure investments. National Treasury indicates that four broad options exist: borrowing, development charges, land leases and PPPs.

The focus of this article is the municipal borrowing market and specifically the municipal bond market as a viable source of raising financial resources for infrastructure delivery. The article finds that there are indeed a number of municipalities in KwaZulu-Natal (although very limited) that have the ability to participate in the municipal bond market and in fact should be encouraged to use the municipal bond market to finance their infrastructure programmes. However, for a large number of municipalities in the province, the municipal bond market is not a viable or desirable option.

1. INTRODUCTION

Moody's Investors Service in 2011 stated that the South African municipal bond market has expanded five-fold since the inaugural COJ01 bond issued by the city of Johannesburg in 2004, and largely reflects the need for magnet cities to finance large-scale infrastructure projects. Moody's further states that they believe that issuance in the municipal bond market will continue to be dominated by the country's three largest cities of Johannesburg, Cape Town and Ekurhuleni. However, South Africa's other large municipalities may tap the capital markets in the future, given their capital needs and relative size of potential debt issuances.

The bond market (also known as the credit, or fixed income market) is a financial market where participants can issue new debt, known as the primary market, or buy and sell debt securities, known as the secondary market, usually in the form of bonds. The primary goal of the bond market is to provide a mechanism for long term funding of public and private expenditures. The Securities Industry and Financial Markets Association (SIFMA) classify the broader bond market into five specific bond markets.

- Corporate
- Government & agency
- Municipal
- Mortgage backed, asset backed, and collateralized debt obligation
- Funding

Projectmonitor (India's first newspaper on Projects, http://www.projectsmonitor.com/detailnews.asp?newsid=6884) published an article where it states that most of the municipal bodies in India are financially in a pathetic state, which has resulted in poor maintenance of existing infrastructure as well as low investment in new infrastructure. One way to prop up the finances of municipal bodies, according to the paper, is to develop a municipal bond system that will help the municipalities to approach the capital market to meet their urban infrastructure investment requirements. Indeed, most of the municipal bodies in India have a poor image and any system devised should be within the ambit of this reality, according to the article.

There are 62 local government entities in the province of KwaZulu-Natal, i.e., 1 metropolitan municipality (eThekwini), 10 district municipalities and 51 local municipalities. Only about 15 of these can be classified as major urban economies or major economic nodes. The majority of local government entities however are significantly rural based, dependent primarily on agriculture and informal trading.

Municipalities in South Africa are responsible for electricity delivery, sewage and sanitation, storm water systems, abattoirs and fresh food markets, amongst other responsibilities. A large number of the roles and responsibilities of municipalities are revenue possible, i.e., there is a possible revenue stream associated with the costs of the supply of the service through the user pay principle. The CSIR in their 2007 report states that the condition of municipal infrastructure in South Africa is a crucial element in South Africa's ability to ensure service provision to all communities. The study also found that the South African authorities compare unfavourably with the benchmark in respect of strategic planning, asset accounting, and planning and making financial provision for improvement of infrastructure. Parliament's Portfolio Committee on Energy reported that the distribution, maintenance and rehabilitation backlog was recorded as being at R24.7bn in 2008. It's increased by at least R2.5bn annually since then and has crept up to R35bn in 2012.

There is widespread consensus about the importance of municipalities and specifically municipal infrastructure in the development of the South African economy. There is a clear focus on the developmental mandate of municipalities in South Africa. Unfortunately a large portion of the municipalities in South Africa and KwaZulu-Natal simply don't have the financial resources to expand and maintain growth-supporting infrastructure. In a large number of municipalities, such infrastructure has disintegrated beyond repair causing significant economic constraints. It must, however, be noted that it's not simply a financial issue, as there are also significant capacity, planning and implementing constraints with infrastructure delivery. The fact of the matter, however, is that the vast majority of municipalities in South Africa and KwaZulu-Natal have massive financial constraints. The aim of this paper is therefore to investigate the attractiveness and viability of the municipal bond market as an alternative source of revenue for municipalities in order to support infrastructure delivery in the province of KwaZulu-Natal.

2. THE MUNICIPAL BOND MARKET – INTERNATIONAL EXPERIENCE

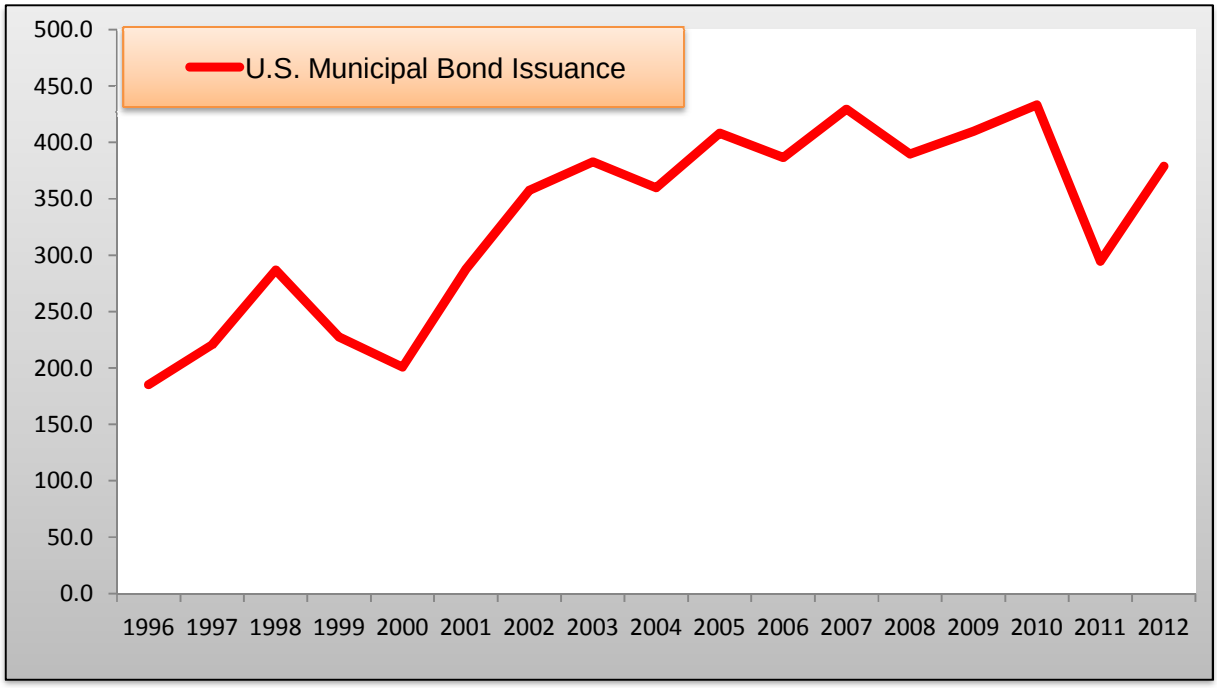
Led by efficiency and democratization reasons, many countries throughout the world have been decentralizing responsibilities for infrastructure provision from the national state to lower spheres of government during the last two decades. In many countries, it is now local governments that are responsible for delivering essential infrastructure services such as water, electricity, roads, sewerage, and sanitation. It is widely acknowledged in development literature that providing sound infrastructure is crucial not only for enhancing growth, but also for directly reducing poverty. Investments in infrastructure are therefore crucial to spur development. Infrastructure spending in developing countries, however, is far below what is needed, and most developing countries experience severe infrastructure backlogs. In this context, sub-national borrowing can be an important means to finance more infrastructure spending today, which could help escape the poverty trap (Liebig, et al. 2008).

The United States of America (USA) has the oldest and largest municipal bond market in the world. The first municipal bonds were issued in 1812. These municipal bonds were general obligation bonds, i.e., bonds which were backed by taxing power and tax revenues of the issuers. The U.S. Securities and Exchange Commission (2012) in their Report on the Municipal Securities Market states that the municipal securities market is critical to building and maintaining the infrastructure of the USA. State and local governmental entities issue municipal securities to finance a wide variety of public projects, to provide for cash flow and other governmental needs, and to finance non-governmental private projects.

The report further states that depending on the type of financing, payments of the principal and interest on an issue of municipal securities may come from general revenues of the municipal issuer, specific tax receipts, revenues generated from a public project, or payments from private entities or from a combination of sources. In addition to being issued for many different purposes, municipal securities are also issued in many different forms, such as fixed rate, zero coupon or variable rate bonds. The interest paid on municipal securities is typically exempt from federal income taxation and may be exempt from state income and other taxes as well.

According to the report in 2011, there were over one million different municipal bonds outstanding compared to fewer than 50,000 different corporate bonds. These municipal bonds totaled $3.7 trillion in principal, while corporate (and foreign) bonds and corporate equities outstanding totaled $11.5 trillion and $22.5 trillion, respectively. The graph below displays the total value of the outstanding municipal bonds for new capital and refunding from 1996 to 2012. While municipal securities issuances slowed following the onset of the 2008 financial crisis, they appeared to rebound in 2011. The $3.7 trillion represents a million different municipal bonds that are outstanding, and there are 44,000 state and local issuers. Respondents to the 2012 SIFMA Municipal Issuance Survey expect total municipal issuance, both short- and long-term, to reach $4,02 trillion in 2012 (SIFMA, http://www.sifma.org/research/statistics.aspx).

Graph 2.1: U.S. Municipal Bond Issuance - USD Billions

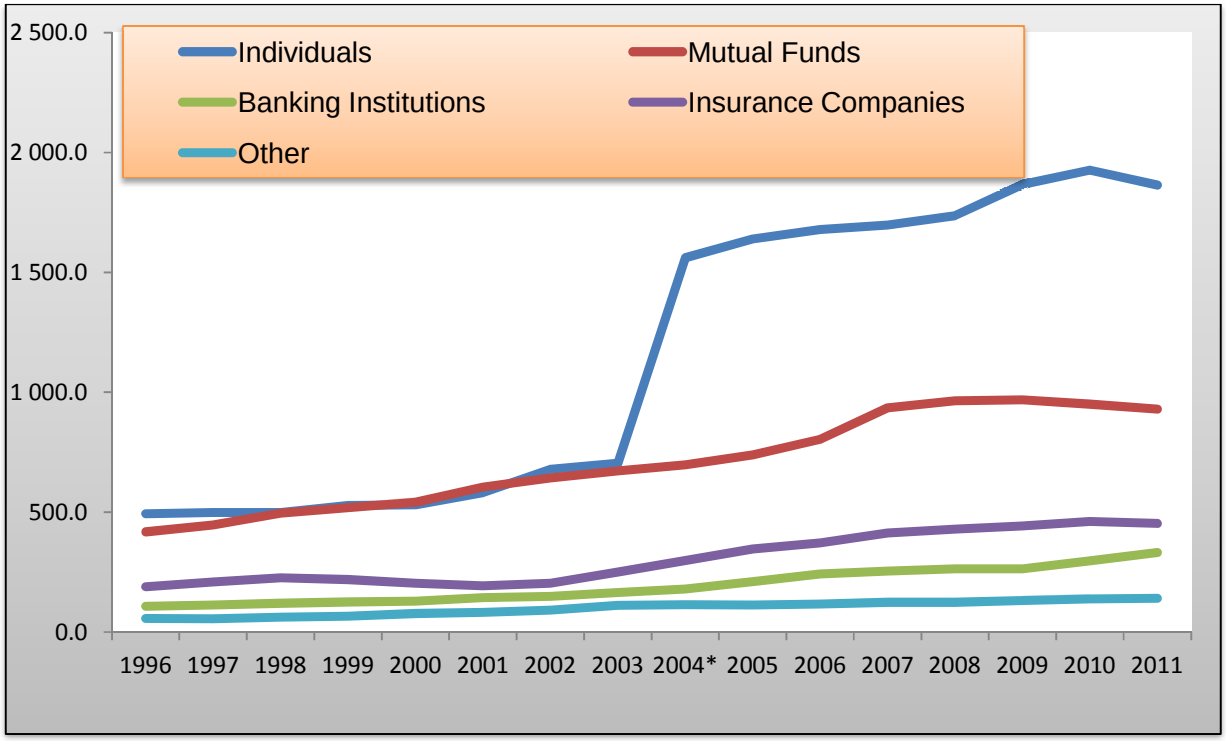


(Source: U.S. Securities and Exchange Commission, 2012)

Municipal securities, particularly tax-exempt municipal securities, are largely held by individual or “retail” investors in the USA. Retail investors usually buy and hold municipal securities until maturity. Households as a group have represented the largest single owner of municipal securities outstanding for the past eight consecutive years, as shown in the graph below. As of December 31, 2011, they accounted for nearly $1.9

trillion of municipal securities holdings, which is a 12% increase relative to 2006. Approximately 50.2% of the outstanding principal amount of municipal securities was held directly by individuals and up to 25% was held on behalf of individuals by mutual, money market, closed-end, and exchange-traded funds (U.S. Securities and Exchange Commission, 2012).

Figure 2.2: Primary Holders of Municipal Securities – 2006 to 2011 - USD Billions



(Source: U.S. Securities and Exchange Commission, 2012)

The Report on Indian Urban Infrastructure and Services (2011) (in Sheikh and Asher, 2012) states that municipal bonds have advantages in terms of the size of borrowing and the maturity period, often 10 to 20 years. Both these features are considered ideal for urban infrastructure financing. Further, if appropriately structured, municipal bonds can be issued at interest costs that are lower than the risk-return profile of individuals by urban local bodies (ULBs). While the initial transaction costs of accessing this market are high—since a ULB needs to invest in meeting the pre-requisites of its first bond issue—as the issue size and frequency increase over time, competencies develop, thereby reducing the transaction costs.

Since 1997, 25 municipal bond issues have taken place in India, which have included taxable and tax-free bonds and pooled financing issues, mobilizing funds to the tune of nearly Rs. 14 billion, approximately US$ 0.3 billion (in Sheikh and Asher, 2012). The bond releases ULBs in India cannot be classified as either revenue bonds (secured exclusively by the revenues from a certain project, which uses the bond proceeds for financing) or as general obligation bonds (backed by the complete taxing power of the municipal government). Instead, they have been referred to as structured debt obligations (SDOs). Their distinguishing feature is that they are issued conditional on the borrower pledging certain sources of revenue for debt servicing. Bond repayment is, then, given the highest priority and kept independent of the ULB's overall financial and fiscal position (in Sheikh and Asher, 2012).

Sheikh and Asher (2012) further state that it ought to be noted that these Indian municipal bond issues have been distributed among only a few ULBs (seven ULB's), with a quarter raised by the Ahmedabad Municipal Corporation, and around one-sixth each by the Nashik Municipal Corporation, and by ULBs around Bangalore. The tenors of the issues have varied, being mostly in the range of 5 to 10 years; project-specific pooled issues have had a tenor of 15 years (table 2.1). In general, Municipal issues are in the nature of revenue bonds, with fixed interest rate, with or without government guarantee, maturity 7-15 years, are in the form of Structured Obligations (SO), taxable or tax free. Of the 25 municipal bond issues, 17 have been to fund water supply and sewerage projects and 6 have been used to fund road works. This is possibly because user charges or tariffs in such infrastructure projects are easier to enforce and the amount and frequency of expected revenues can be predicted with some certainty.

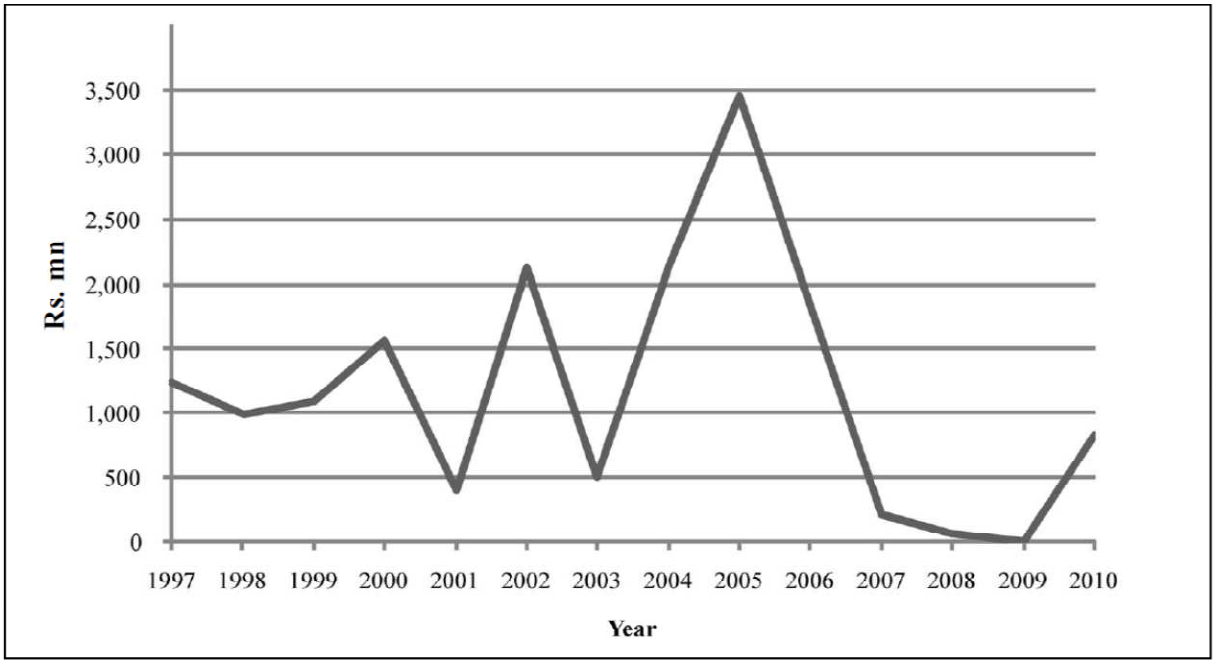
Table 2.1: Municipal issues in India

Municipal Corporations(Amount in Crores of Rupees)

Municipal Corporation	Issue Date	Maturity (Years)	Coupon (%)	Rating	Agency	Amount	Guarantee
Bangalore	1997	7	13	A-(SO)	CRISIL	100	Yes
Ahmedabad	1998	7	14	AA-(SO)	CRISIL	100	No
Nashik	1999	7	14.75	AA-(SO)	CRISIL	100	No
Ludhaina	1999	10	13.5-14	LAA(SO)	ICRA	10	No
Nagpur	2001	7	13.43	LAA-(SO)	ICRA	50	No
Madurai	2001	15	12.25	LA+(SO)	ICRA	30	No
Indore	2001	7	11.50	-	-	10	Yes
Hyderabad	2002	8.5	7	AA+(SO)	CRISIL	82.5	No
TNUDF	2001	5	11.85	LAA+(SO)	ICRA	106	No
TNUDF (Pooled)	2002	15	9.2			30	No

The trend in the value of municipal bond issues in India from 1997 to 2010 suggests that there was much enthusiasm until 2005; however, a sharp fall in the value of these issues has been observed in the past few years (in Sheikh and Asher, 2012). This is shown in the graph below. Debt servicing has been undertaken by using the revenues of the respective ULB, such as octroi4 and property tax, which were deposited in an escrow account for the purpose. These were designated beforehand as collateral and served as the main credit enhancement measures. Additionally, in some cases, revenues from the infrastructure project financed by the municipal bond issue were also routed to the escrow account; and a debt service reserve fund (called the sinking fund) was also established to supplement the repayment in case the other revenues fell short.

Graph 2.2: Trend in Value of Municipal Bond Issues in India, 1997–2010



(Source: in Sheikh and Asher, 2012)

Brazil on the other hand, according to Peterson (2002) is as far away as ever from having a functioning local credit market. Calife (2003) states that a municipal bond market existed in Brazil but it was practically extinguished with the restrictions imposed by the government in the name of fiscal adjustment and macroeconomic stability. Municipal bond issues are prohibited. Municipalities must obtain case-by-case approval from the central bank and national Senate for other types of borrowing. No private

banks will make intermediate or long-term loans to municipalities, even when it is legally permissible, because of the perceived riskiness of such lending.

Calife (2003) cites some factors that historically did not allow for the strengthening of municipalities' bonds in Brazil, among them: the capital market being incipient, there was no medium and long-term planning, there were no mechanisms of transparent budget control, there was a lack of technical knowledge of the public finances technicians and a lack of specific law for the financial issue from the municipalities. The study recommends that the process of the municipalities' public administration should be reviewed, elaborated and developed aiming to create a transparent and effective relation, beyond starting a long-term strategic process planning that considers several municipalities' sectors, their agents and possible alternatives.

Bloomberg in 2011 (20 October) reports that China has approved a trial program that will allow select local governments to issue bonds for the first time and alleviate the debt burden on companies set up to raise funds on their behalf. The cities of Shanghai and Shenzhen, as well as the provinces of Zhejiang and Guangdong will be able to issue debt on their own rather than through the central government, according to a statement on the finance ministry's website. The State Council will set a limit for the amount of debt that can be sold under the program and the ministry will pay interest on securities issued for the first year. Local governments in China were previously barred from issuing bonds directly under a budget law introduced in 1994, legislation that prompted them to set up companies that raised finance individually for projects. The entities together owed 10.7 trillion yuan ($1.7 trillion) at the end of 2010.

This new approach stems from an acknowledgement of the realities of urbanization, which in turn appears to have re-opened the topic of financing local infrastructure projects. In the fourth quarter 2012 monetary policy report, the Peoples Bank of China (PBC) wrote an exhibit entitled "the international experience of financing construction for urbanization". In this exhibit, the Peoples Bank observed a strong correlation between urbanization and municipal bonds across countries from the 1950s to 2011. They found that the use of municipal bonds backed by tax revenues was the most effective tool for supporting urbanization "no matter whether you have a federal or centralized system of government" (China Economic Watch, http://www.piie.com/blogs/china/?p=2320).

Municipal bond banks first appeared in Canada in 1956 for the express purpose of lowering the cost of debt for municipalities. Since then, the numbers of municipalities in Canada that have issued municipal bonds have increased consistently, especially over the past 10 years. Local governments in Canada remain the prevalent issuer of municipal debt after their US equivalents Municipal bonds in Canada are not automatically guaranteed by the provinces in which they are domiciled, except in a few rather specific cases. If they were guaranteed by their provinces, then all municipalities would be rated the same as the province that guaranteed them. Such a guarantee by the provinces would in turn lower the provinces' ratings. Instead, municipal bonds may vary in ratings depending, among other factors, on the tax revenues it can raise to pay the interest on its debt issues. Terms to maturity generally range from a few months to 30 years. The most liquid issues are the larger recent issues with terms of 5, 10, and 30 years.

Municipal bonds in Canada are not tax exempt, but they are standard financing instruments for sub-sovereign governments. Furthermore, Canadian municipalities offer safety nets to investors. The senior Canadian government, with the exception of British Columbia, directly guarantees municipal bonds through Municipal Finance Corporations (MFCs). This enables less creditworthy municipalities to put their securities on the markets (Mezui, 2012). For example, in 2011, Toronto, Canada's biggest city, sold C$700 million ($683 million) in debt, almost double the 2010 total. The city planned to issue as much as C$500 million in 30-year securities to finance streetcars, subways and roads, plus another $200 million in 10-year debt to maintain existing infrastructure.

Historical, structural and current financial problems have contributed to fairly low credit ratings in many Canadian municipalities and therefore these rather small or poorly rated municipalities face significant borrowing problems. One improvement, according to Rhee and Stone (2003), available to many municipalities is the municipal bond bank (MBB). The MBBs operate as credit enhancing organizations by "pooling" multiple municipalities' borrowing needs into a single bond bank debt issuance, thereby modifying two important characteristics of the municipality's debt. First, the credit rating associated with the debt is changed. Municipal bond banks must have strong credit ratings if they are going to fulfill the purpose for which they are intended. Bond banks

operate by re-lending the funds obtained with their higher credit rating to the municipalities with lower credit ratings. This process is called “credit rating arbitrage”.

The second characteristic modified by a MBB debt issuance is the size of the issue. By “pooling” multiple municipalities borrowing needs together, MBBs are able to offer larger debt issues, which typically make the primary market offering more competitive. With more competition in the primary market, one expects the price of the bond to rise and the municipality’s debt servicing cost to fall. Savings is also realized through a reduction in transaction costs associated with the economies of scale in the underwriting process. Savings from the anticipation of increased liquidity in the secondary market due to the increased size of the offering may also occur. MBBs typically offer professional management and minimal administrative costs to their members as well (Rhee and Stone, 2003).

The Polish bond market is dominated by national government debt instruments, with most maturities ranging from fifty-two weeks to five years, although variable-rate bonds with 10-year maturities have recently been sold on an experimental basis. Some general obligation bonds for special projects have been privately placed by cities such as Warsaw, Plock, Mokotow, Miedzyrzec, etc., and a few revenue bond issues have been sold by municipal-owned enterprises. However, nationwide, only about 2 percent of local government capital spending derives from borrowed funds, and most of that comes from banks or government-subsidized environmental loan funds. The national government is now exploring ways of expanding municipal bond market activity in response to growing demands from both potential issuers and investors. A first step was taken with a new law on bond issuance, which became effective in August 1995. A second step was the initiation of an over-the-counter (OTC) market in securities in late 1996, with the first bond issue approved for OTC trading in December (Leigland, 1997).

The Philippine bond market is also dominated by national government issues, particularly Treasury Bonds and Notes, with maturities now ranging up to seven years. Bonds are also sold by government banks and other government-owned corporations. Only a few municipal issuers have sold bonds, the best known of which are the Cebu Equity-Bond Units, sold in 1991 by the Provincial Government of Cebu. The bonds, with two-year maturities, were backed by a pledge of repayment from a joint public-private

consortium that paid off the principal with equity shares in the corporation. After the passage of the Local Government Code in 1991, local governments were given greater discretion in arranging their own bond deals. However other than some housing-related mortgage bonds sold with guarantees by a central government housing corporation, and an issue prepared but not sold by Naga City, municipal bond activity has been virtually non-existent (Leigland, 1997).

The Indonesian bond market is a very small market with a total capitalization of about one third the size of the Philippines' bond market. The central government does not sell bonds or other treasury securities, but the country does have a modest corporate bond market catering mostly to private sector companies and some state banks and other national level government-owned corporations. Maturities have ranged up to 12 years for some toll-road bonds guaranteed by national government agencies, but the vast majority of issues have maturities of five years. Of the 48 issuers who accessed the bond market between 1988 and August 1995, seven were Regional Development Banks, owned jointly by provincial and local governments. These five-year Issues, backed by general system revenues, and sold to finance on-lending to local governments for small projects, have been the nearest thing to municipal bonds sold in the market (Leigland, 1997).

A study by German Development Institute (Liebig, et al, 2008) found that Municipal borrowing has positive effects on infrastructure provision in South Africa. Through borrowing, more capital is available to municipalities today, albeit the allocation of debt capital is still concentrated on a few municipalities. This capital is channeled into diverse infrastructure sectors, at least partly also into backlog reducing projects. However, we did not find evidence that debt financing improves the implementation of single infrastructure projects. Municipal borrowing in South Africa also impacts local governance in terms of transparency, accountability and financial management positively. This, in turn, they assume to result in a more efficient and needs-oriented use of resources and therefore in improved infrastructure service delivery. The study concludes as follows; sub-national borrowing has a positive impact on infrastructure service delivery in South Africa. If several shortcomings concerning the regulatory framework, the demand-side and the supply-side of the borrowing market are addressed, there is room for expanding municipal borrowing in the country.

3. REVENUE POSITION OF KWAZULU-NATAL MUNICIPALITIES

Table 3.1 and table 3.2 displays the revenue position of the KZN municipalities in the two financial years (audited outcomes). The total column displays the cumulative revenue per indicated category for all the KZN municipalities (all types of municipalities). For example, the total revenue generated from property rates for all 62 municipalities in KZN in the 2003/04 financial year was R3.2bn compared to R6bn in the 2009/10 financial year. The Ethekweni column only displays the revenue generated per category for the Ethekweni metropolitan municipality. It is included as a standalone municipality since it is by far the largest municipality in the province. The revenue generated per category for next largest municipalities (4 municipalities) are displayed in the 3rd column, with the revenue generated per category of the remainder of the KZN municipalities (57 municipalities) displayed in the 4th column.

Table 3.1 indicates that the Ethekweni metropolitan municipality accounts for about 60% of the total KZN Municipal revenue, 80% of the total KZN municipal property rates and service charges and 94% of the total external loans during the 2003/04 financial year. On the other hand, the rest of the municipalities account for more than 70% of the total government grants during the 2003/04 financial year.

Table 3.1: Revenue Position of KZN Municipalities, 2003/04 financial year

Total Income, 2003/04 R' thousands		Total (column 1)	Ethekweni metropolitan municipality	Msunduzi, Hibiscus Coast, Newcastle, uMhlatuze	Rest of the Municipalities
Operating	Property rates	3 201 323	2 367 293	517 656	316 374
	Service charges	6 010 112	3 849 265	1 156 939	1 003 908
	Investment revenue	618 536	494 128	46 781	77 627
	Government grants	1 822 198	373 703	146 064	1 302 431
	Public contributions and donations	219		0	219
	Other own revenue	1 545 885	922 921	483 179	139 785
Capital	External Loans	426 347	404 538	5 215	16 594
	Public Contributions and Donations	596		0	596
	Grants and subsidies	1 072 658	332 446	101 483	638 729
	Other	1 142 099	727 567	206 233	208 299

Total	16 104 481	9 471 861	2 663 550	3 969 070

(Source: National Treasury, LGR Database, own calculations)

Table 3.2 suggests that the revenue dynamics of the KZN municipalities have stayed fairly constant from the 2003/04 financial year to the 2009/10 financial year in that the Ethekweni metropolitan municipality and the next 4 largest municipalities account for about 80% of the total property rates and service charges, whilst the rest of the KZN municipalities account for about 65% of the total government grants. The rest of the KZN municipalities also account for only about 6% of the total external loans.

Table 3.2: Revenue Position of KZN Municipalities, 2009/10 financial year

Total Income, 2009/10, R' thousands		Total (column 1)	Ethekweni metropolitan municipality	Msunduzi, Hibiscus Coast, Newcastle, uMhlatuze	Rest of the Municipalities
Operating	Property rates	5 987 973	4 236 363	926 504	825 106
	Service charges	12 092 467	7 841 496	2 559 680	1 691 291
	Investment revenue	447 546	201 693	69 896	175 957
	Government grants	10 195 951	3 755 029	1 015 769	5 425 153
	Public contributions and donations	36 200	34 516	175	1 509
	Other own revenue	4 387 428	3 025 741	713 144	648 543
Capital	External Loans	1 267 815	1 000 000	183 349	84 466
	Public Contributions and Donations	4 971	0	4 971	0
	Grants and subsidies	4 707 770	2 299 383	410 960	1 997 427
	Other	3 622 850	3 237 637	143 104	242 109
Total		42 750 971	25 631 858	6 027 552	11 091 561

(Source: National Treasury, LGR Database, own calculations)

The revenue position of the KZN municipalities also indicates that the property rates and service charges account for about 50% of the total revenue, whereas government grants account for about 50% of the total revenue from the rest of the KZN municipalities. External loans account for less than 4% of the total revenue in the case of the Ethekweni metropolitan municipality and less than 1% of the total revenue in the case of the rest of the KZN municipalities.

Table 3.3 displays the nominal per annum percentage increase in each of the revenue categories. It is very clear that all categories of revenue increased significantly over the period for all of the KZN municipalities. Property rates and service charges increased in real terms (taking into account an average 6% pa inflation rate for the period), but are by no means comparable to the increase in government grants. External loans also increased in real terms substantially.

Table 3.3: Revenue Position of KZN Municipalities, per annum nominal growth

Total Income, 2009/10, nominal pa %		Total (column 1)	Ethekweni metropolitan municipality	Msunduzi, Hibiscus Coast, Newcastle, uMhlatuze	Rest of the Municipalities
Operating	Property rates	14.51	13.16	13.16	26.80
	Service charges	16.87	17.29	20.21	11.41
	Investment revenue	-4.61	-9.86	8.24	21.11
	Government grants	76.59	150.80	99.24	52.76
	Public contributions and donations	2 738.28			98.17
	Other own revenue	30.64	37.97	7.93	60.66
Capital	External Loans	32.89	24.53	569.30	68.17
	Public Contributions and Donations	122.34			-16.67
	Grants and subsidies	56.48	98.61	50.83	35.45
	Other	36.20	57.50	-5.10	2.71
Total		27.58	28.44	21.05	29.91

(Source: National Treasury, LGR Database, own calculations)

The statistics (National Treasury, LGR Database) indicates that during the 2003/04 financial year, 8 municipalities recorded external loans whilst during the 2009/10 financial year the number decreased to 7. The detail however reveals that the Ethekweni metropolitan municipality accounts for about 85% of the total external loans, so it will be fair to argue that during the period, only 1 municipality actively borrowed capital in the province.

The estimated revenue position of the KZN municipalities (table 3.4) indicates that external borrowing has and will continue to account for a very small, almost insignificant portion of the total revenue, with the Ethekweni metropolitan municipality in principle accounting for the borrowing.

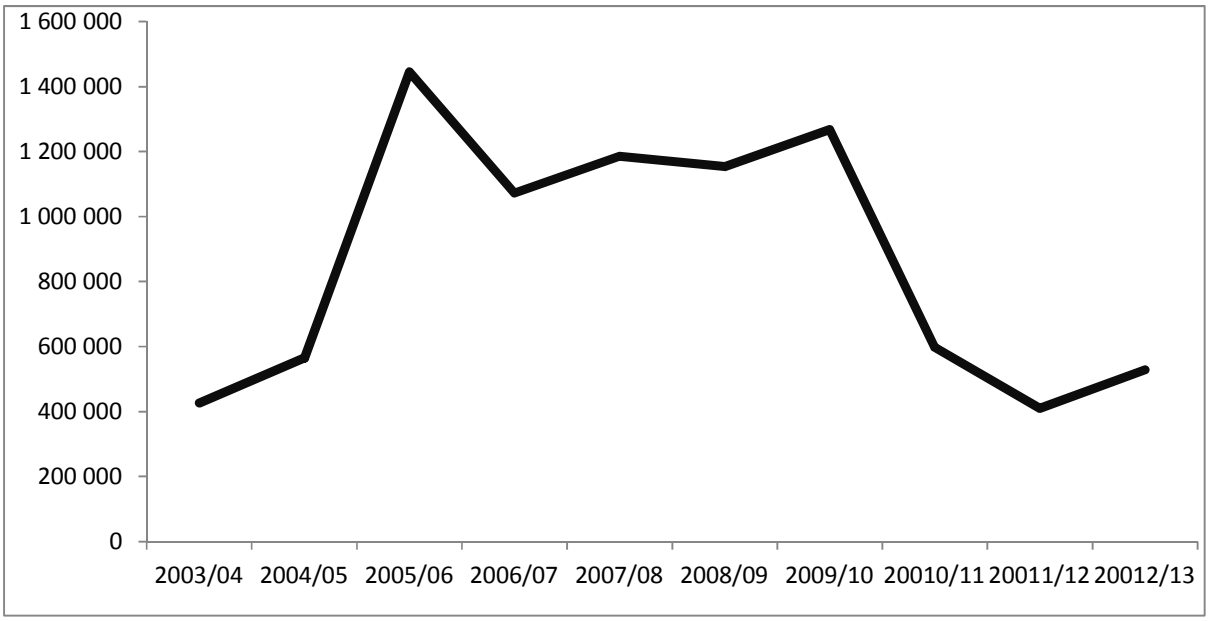
Table 3.4: Estimated Revenue Position of KZN Municipalities, 2010/11 to 2012/13 financial years

Total Estimated Income, R' thousands		Total (column 1)	2010-11	2011-12	2012-13
Operating	Property rates	20 041 660	6 224 959	6 645 489	7 171 212
	Service charges	54 845 496	15 210 923	18 071 545	21 563 028
	Investment revenue				
	Government grants	28 168 948	9 348 965	8 944 639	9 875 344
	Public contributions and donations				
	Other own revenue	20 151 973	6 037 566	6 731 682	7 382 725
Capital	External Loans	1 535 920	597 325	409 605	528 990
	Public Contributions and Donations	132 312	33 539	47 550	51 223
	Grants and subsidies	15 022 562	5 608 282	4 459 568	4 954 712
	Other	9 967 017	3 466 533	3 440 877	3 059 607
Total		149 865 888	46 528 092	48 750 955	54 586 841

(Source: National Treasury, LGR Database, own calculations)

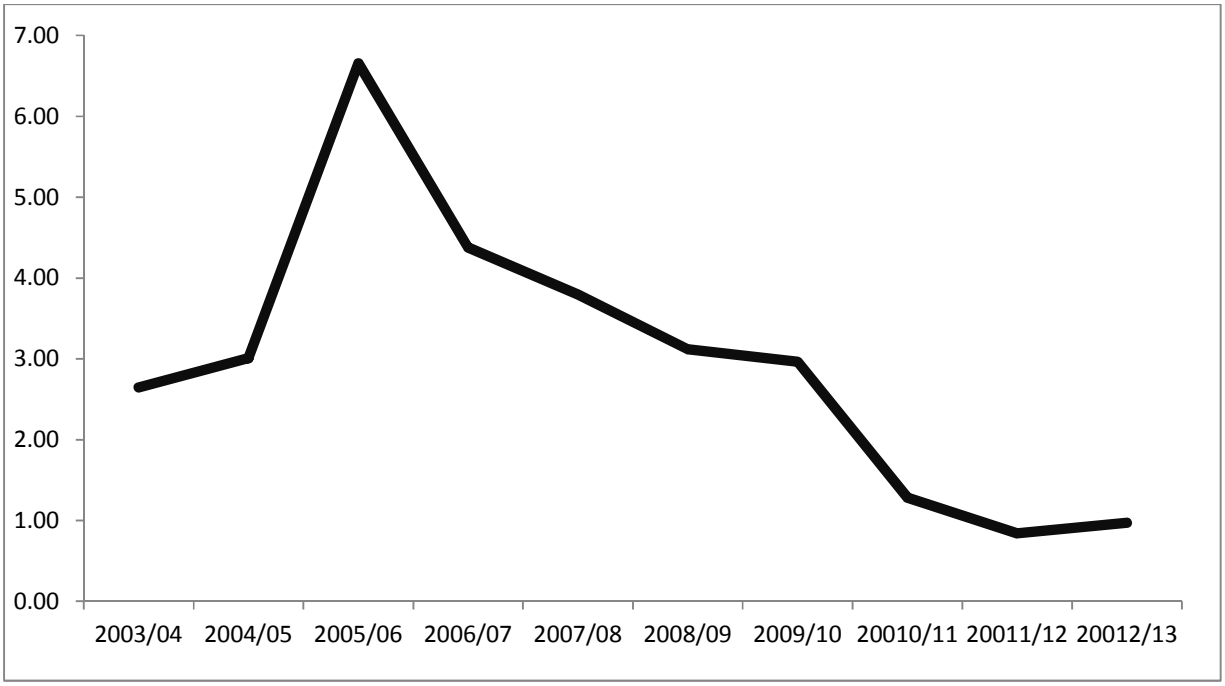
The graph below displays the borrowing behavior of the KZN municipalities (and per definition the Ethekweni metropolitan municipality) for the stated period. External borrowing increased significantly from 2003 to 2009, but has since then decreased dramatically, most probably because of the financial crises of 2009.

Graph 3.1: External Borrowing by KZN Municipalities – R' thousands



Graph 3.2 indicates that external borrowing has decreased significantly as a share of total revenue. External borrowing seems to account for an almost insignificant part of the total revenue of the KZN Municipalities. Does this suggest an unwillingness to borrow, an inability to borrow or is it a combination of both???

Graph 3.2: External Borrowing as a Percentage of Total Revenue



4. THE MUNICIPAL BOND MARKET IN SOUTH AFRICA

Phelps (1997) states that South Africa appears to have a vigorous history of municipal lending, however, according to Phelps, this history is deceptive. A relatively strong and active municipal bond market did previously exist (under apartheid). There is also a substantial track record of commercial bank lending to local authorities, both for investment and for cash-flow purposes. Under apartheid, municipal governments in South Africa borrowed extensively from the private sector using bonds and loans, both for short-term financing as well as for capital investment needs. This was possible thanks to the existence of a relatively active municipal bond market, albeit not very liquid, that was created in part by a “prescribed investment regime” where financial institutions were required to invest a percentage of their portfolios in government debt, including municipal bonds. Municipal securities were attractive investments, as they

carried an implicit guarantee from the government, paid a modest interest rate premium, and were considered basically risk free.

However, the rules under which the municipal credit market formerly operated have changed significantly post-apartheid. The post-apartheid government ended the prescribed investment regime, choosing not to guarantee funding for municipal capital investments and to expand municipal governments to include formerly black townships. As a result, during the period 1995 and 1996, private-sector, long-term lending to local governments declined, to the point private institutions generally either were not supplying new long-term credit to local authorities or had substantially reduced their lending and municipal bond purchases.

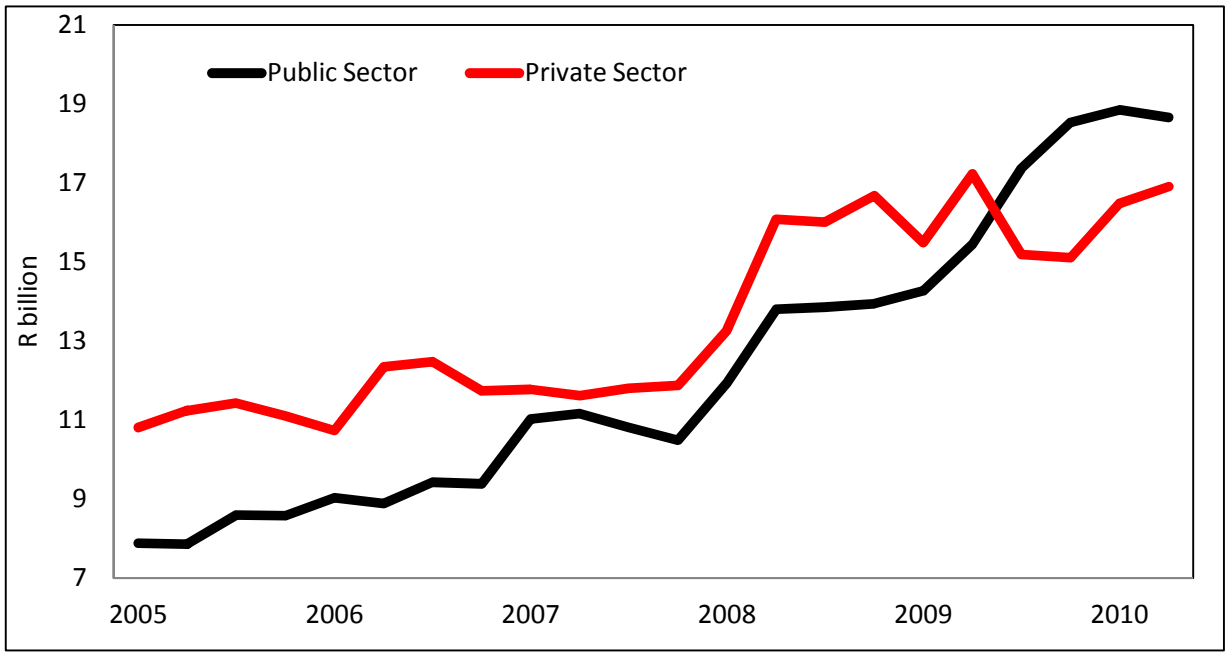
Horn (2003) states that the disappearance of the municipal bond market since 1994 in South Africa contributed to the infrastructure gap and that government is not able to finance the crucial infrastructure needed. It will be necessary for local authorities, according to Horn, to attract larger volumes of municipal credit if South Africa is to meet its local infrastructure investment objectives. Urban infrastructure can attract private finance in different ways. The most critical avenue for any country to achieve this, according to Peterson (2002), would be to make use of the local credit market.

Phelps (1997), Horn (2003), Liebig, et al (2008) and the National Treasury (2011) agree that the need for discussing sub-national borrowing for infrastructure service delivery is due to three factors. The first factor is the trend to decentralize responsibilities for infrastructure service delivery away from the central government. The second factor is the importance of infrastructure for growth and development. And the third factor is the need to tap more resources for finance development.

According to the National Treasury (2011) and the LGR Database, the primary sources of infrastructure finance available to municipalities are internally generated funds and national transfers from government. However, it is argued that these are insufficient to meet the scale of infrastructure investment required by municipalities. There is thus a need for municipalities to explore ways of leveraging private finance to mobilise additional resources to fund infrastructure investments.

Graph 4.2 shows the trend in public and private sector lending to municipalities from 2005 to 2010. The total closing balances in outstanding municipal borrowings grew from R18.7 billion in 2005 to R38.1 billion in 2010, representing an average annual growth of 15 per cent.

Graph 4.2: Trends in the Municipal Borrowing Market



(Source, National Treasury)

National Treasury (2011) stated that the growth in borrowing from the public sector is of particular significance (graph 4.2). Private lenders became more risk averse during the recession, with total debt from late 2008 to the end of the third quarter of 2010 remaining flat. By contrast, public sector lending – almost entirely from the Development Bank of Southern Africa (DBSA) – accelerated sharply during this period, resulting in total public sector lending exceeding private sector lending for the first time. Most municipal borrowing from both private and public sector financial institutions takes the form of long-term loans. These account for R25.4 billion (64 per cent) of total borrowing. Securities, mainly in the form of municipal bonds, account for R11.8 billion (30 per cent) of total borrowing, while short term debt accounts for 6 per cent, of which R909 million are bank overdrafts and R2.4 billion is commercial paper.

The first significant post-apartheid bond placement seems to have occurred in 2004 with the City of Jonannesburg. Since then a number of other “big” cities have also placed

municipal bonds. The table below indicates that a total number of 6 municipal bonds were issued from 2004 to 2008. According to Municipal IQ (2008), the majority of the bonds received a warm reception by a bond-thirsty market, for example the COJ01 bonds was oversubscribed by almost 300%.

Table 4.1: South African Municipal Bond Issuances

Bond code	Issuer	Ratings			Issued amount Rbn	Issued date	Coupon rate (%)	Redemption date	Term to maturity	Interest payable dates	Book closed dates
		Fitch	Moody	CA							
COJ01	Johannesburg	A zaf	N/A	zaA+	1	13-Apr-04	11.95	13-Apr-10	6	13 Apr, 13 Oct	03 Apr, 03 Oct
COJ02	Johannesburg	AA zaf	N/A	N/A	1	30-Jun-04	11.9	15-Sep-16	12	15 Mar, 15 Sep	05 Mar, 05 Sep
COJ03	Johannesburg	A zaf	N/A	zaA+	0.7	26-Apr-05	9.7	26-Apr-13	8	26 Apr, 26 Oct	17 Apr, 17 Oct
COJ04	Johannesburg	A zaf	N/A	zaA+	1.2	05-Jun-06	9	5-Jun-18	12	05 Jun, 05 Dec	26 May, 25 Nov
COJ05	Johannesburg	A zaf	N/A	zaA+	1.8	05-Jun-08	12.205	05-Jun-23	15	05 Jun, 05 Dec	26 May, 25 Nov
CCT01	Cape Town	N/A	Aa2.za	N/A	1	23-Jun-08	12.57	23-Jun-23	15	23 Jun, 23 Dec	13 Jun, 13 Dec
					6.7				**11**		

(Source: Municipal IQ)

The city of Johannesburg has, since 2008, issued two bonds, i.e., COJ06 and COJ07. COJ06 is a R90-million, unsecured bond maturing in December 2015 whilst COJ07 is a 10 year fixed-rate R850-million bond. The bond was issued on Par at a spread of 195 basis points against the government bonds R208, resulting in a coupon of 10.78%.

During 2010, the Ekurhuleni Metropolitan Municipality became the third South African municipality to turn to the bond market to raise funds for its capital expenditure programmes, with the issuing of a 10-year fixed-rate R815-million bond. The bond was priced at 185 basis points over the relevant government benchmark bond (R208), resulting in a fixed coupon of 10.56%. It was nearly two times oversubscribed, attracting total bids of over R1.5-billion.

The City of Cape Town has issued two bonds since the issuance of their inaugural CCT01 bond. CCT02 was issued in 2009 as a 15-year fixed-rate R1.2-billion bond with an 11.6% per annum coupon. CCT03 was issued in 2010 as a 15-year fixed-rate R2-billion bond with an 11.6% per annum coupon.

The City of Pretoria was to issue its maiden bond of R1.5 billion by not later than June 2012. However the City decided to postpone the inaugural bond issuance because of certain allegations. The National Treasury, after investigating the allegations, issued a statement saying that “The City of Tshwane did not break the law when it moved to issue a R1.5 billion bond in June this year”. The City recently commented that it plans to raise a minimum of R750 million on the capital market in its next financial year (2013/14) and R10bn in the next five years to fund bulk infrastructure in the city.

The table and graph below display the borrowing costs (coupon rates) of the 11 bonds as issued by the three municipalities compared to the R204 government bond, the E170 Eskom bond, the SA Reserve Bank repurchase rate and the SA commercial banks prime interest rate. The data indicate that the coupon rates of the municipal bonds are on average about 240 basis points higher than the R204 government bond. i.e., municipal bond risk premium and about on average 193 basis points higher than the E170 Eskom bond. However, it is on average about 110 basis points lower than the prime lending rate of commercial banks.

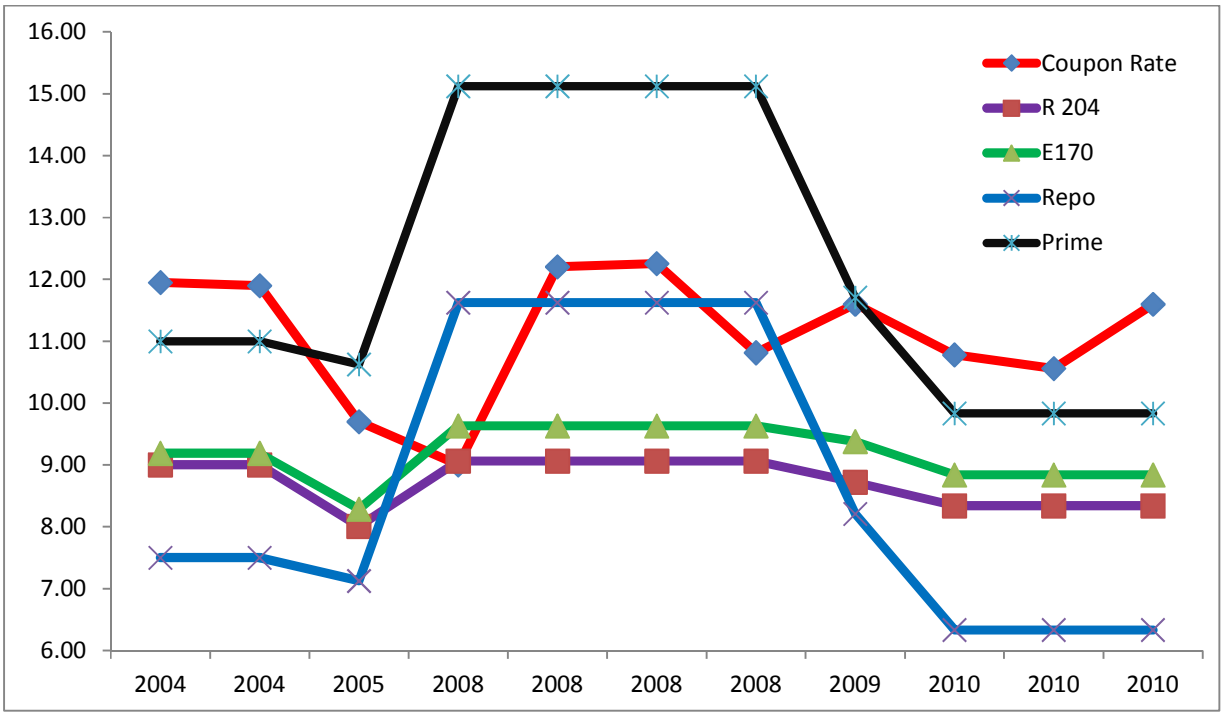
Table 4.2: Municipal Bonds compared to other Fix Interest Instruments

Issue Date	Code	Coupon Rate	R 204	E170	Repo	Prime
2004	COJ01	11.95	9.00	9.19	7.50	11.00
2004	COJ02	11.90	9.00	9.19	7.50	11.00
2005	COJ03	9.70	8.01	8.29	7.13	10.63
2008	COJ04	9.00	9.06	9.63	11.63	15.13
2008	COJ05	12.21	9.06	9.63	11.63	15.13
2008	CCT01	12.26	9.06	9.63	11.63	15.13
2008	COJ06	10.82	9.06	9.63	11.63	15.13
2009	CCT02	11.60	8.72	9.38	8.21	11.71
2010	COJ07	10.78	8.34	8.84	6.33	9.83
2010	COE01	10.56	8.34	8.84	6.33	9.83
2010	CCT03	11.60	8.34	8.84	6.33	9.83

(Source: Sharenet.co.za, own calculations)

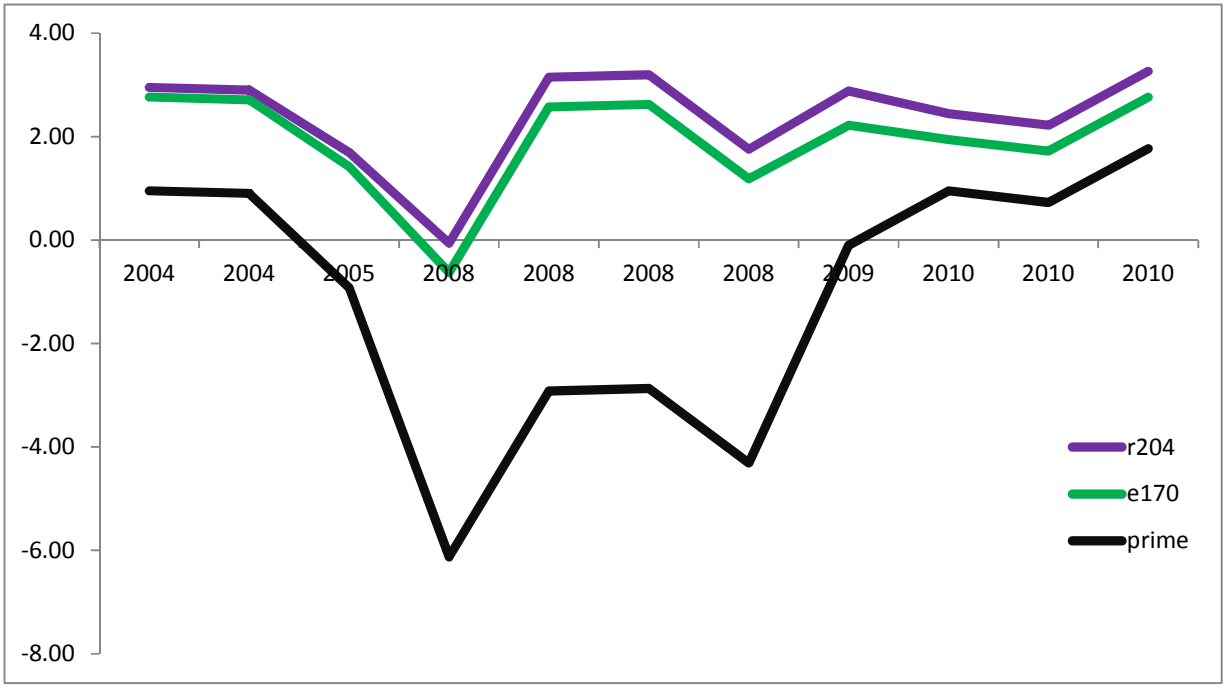
Graph 4.4 seems to suggests that the municipal bond risk premium follows the general domestic economic trends in that the risk premium diminishes as the economy improves or grows and vice versa. It also seems that the relative individual municipal bond costs have marginally decreased since the inaugural COJ01 issue.

Graph 4.3: Municipal Bond Costs



(Source: Sharenet.co.za, own calculations)

Graph 4.4: Municipal Bond Risk Premium

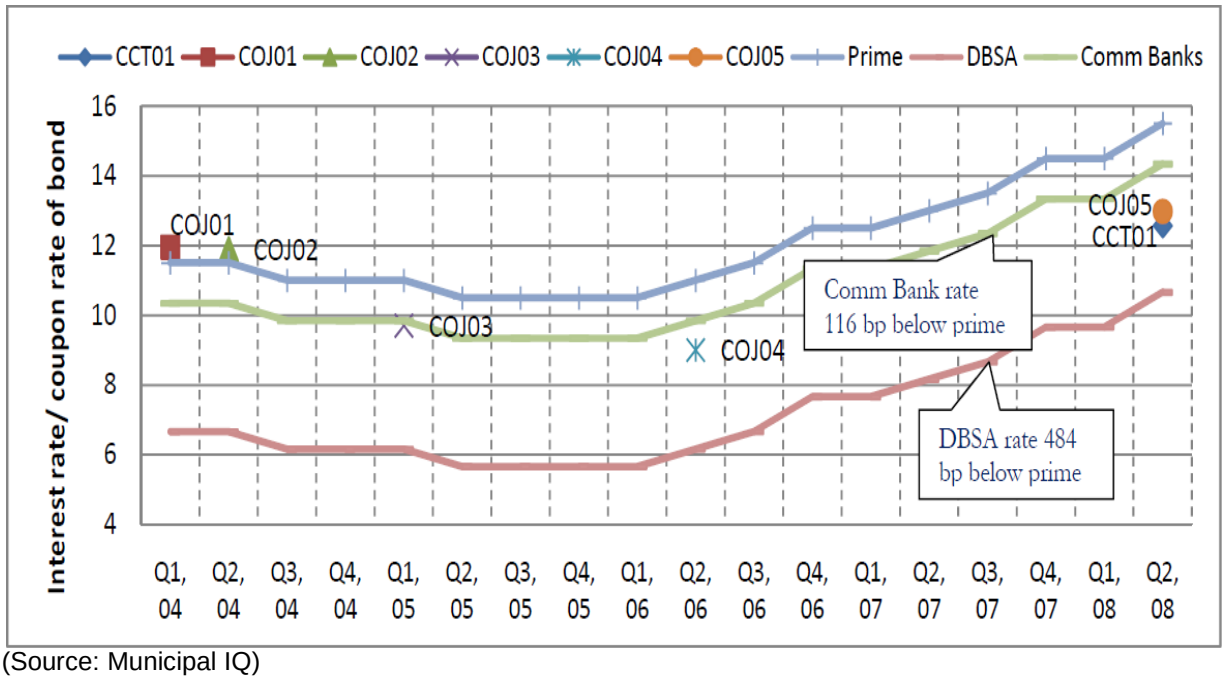


(Source: Sharenet.co.za, own calculations)

However, it must be noted that the above analysis assumes that there is no difference in the risk profile of the issuing municipality, i.e., the three municipalities have identical risk ratings. The analysis also assumes that differences in the duration carry no additional risk.

The results of the analysis are supported by a study conducted by Municipal IQ and published in 2008 (graph 4.5). Research conducted in 2004 by Kevin Allan showed that in a comparison of loans to the four largest South African metros (Johannesburg, Cape Town, eThekwini and Tshwane), commercial bank lending was, on average, 116 basis points below prime while DBSA loans were, on average, 484 basis points below prime.. Comparing lending rates to the interest rate of bonds at the time of issue (the coupon rate) shows some intriguing results.

Table 4.3: Comparison of lending rates to municipalities (by DBSA and commercial banks) and the interest rate of municipal bonds at time of issue (coupon rate)



(Source: Municipal IQ)

It is evident from graph 4.3 that the City of Johannesburg's first two bonds, COJ01 and COJ02, issued in April and June 2004, had a coupon rate which was not only significantly above the DBSA and commercial banks' average lending rate, but was also in fact 450 (COJ01) and 400 (COJ02) basis points above the prime lending rate.

Clearly, Johannesburg paid a premium for issuing these two bonds, not even taking into account the cost of issue, despite being underwritten by the DBSA and IFC (in the case of COJ02). The City of Johannesburg has always maintained that it was prepared to initially issue bonds at a significant cost to itself, that is, above the municipal borrowing market rate, as part of a long-term strategy of raising finance in the bond market, obviously assuming the cost of its bonds would drop over time, as well as taking into account that it was the first to issue a municipal bond in South Africa in the post democracy era (Municipal IQ, 2008).

An assessment of the coupon rate of subsequent Johannesburg bonds compared to borrowing rates at time of issue bears out Johannesburg's strategy it is clear that the coupon rates of COJ03, COJ04 and COJ05 fall increasingly below prime and the average commercial bank borrowing rate (hence becoming more attractive alternatives to bank loans). Cape Town's bond falls into this trend, with a coupon rate similar to the Johannesburg bonds, specifically COJ05 (Municipal IQ, 2008).

However, it is noteworthy that at no time do the coupon rates of any bonds come close to falling below the average DBSA borrowing rate, which is clearly a concessional rate. One can conclude from the comparison of bond coupons rates to borrowing rates that the cost of financing bonds is falling over time (2004-2008), but that the cost of a bond is still significantly more expensive than the average cost of a DBSA loan. To this extent, issues of matching assets and liability profiles, expanding investor bases and diversifying finance costs need to come into play to mitigate the current premium in cost associated with issuing paper (Municipal IQ, 2008).

The study concludes by stating that the balancing act of weighing up the risks and returns of issuing a bond is complex. A municipality needs to have strong internal capacity to manage the bond issue, as well as its administration. In addition, it needs to open itself up to detailed scrutiny by credit rating agencies. But once this is done (which is not to understate the magnitude of these condition; Johannesburg strove to achieve a clean audit over years), a transparent, well-capacitated and investor-friendly municipality is in a position to secure better-priced, more diversified and ultimately greater quanta of much-needed finance, both from the bond market, as well as banks. It should be noted here that banks are coming under pressure to price risk better in line

with the requirements stipulated by Basel II. To this end, Johannesburg's financial management should be lauded as visionary, and Cape Town's as progressive and proactive. While other cities' assessments may be quite sound in not entering the market, it would be myopic not to consider the option.

Let's consider a fairly straight forward example or demonstration. The Msunduzi municipality urgently needs to upgrade the electricity infrastructure in Pietermaritzburg. It is estimated that the current infrastructure is operating at 120% capacity causing frequent and lengthy power failures. These power failures carry significant economic costs for the city and massive financial costs for the municipality. The reliability and stability of the electricity supply in the city is under severe pressure. Also there are significant electricity losses causing significant revenue losses for the municipality. The current electricity infrastructure situation has therefore a significant cost increase and revenue loss impact on the municipality.

It is estimated that the replacement and upgrade costs are about R900 million and will take about 5 years to be completed. The scenario is displayed in the table below. A coupon rate of 11.5% is assumed, based on the average coupon rates of the 2010 municipal bonds.

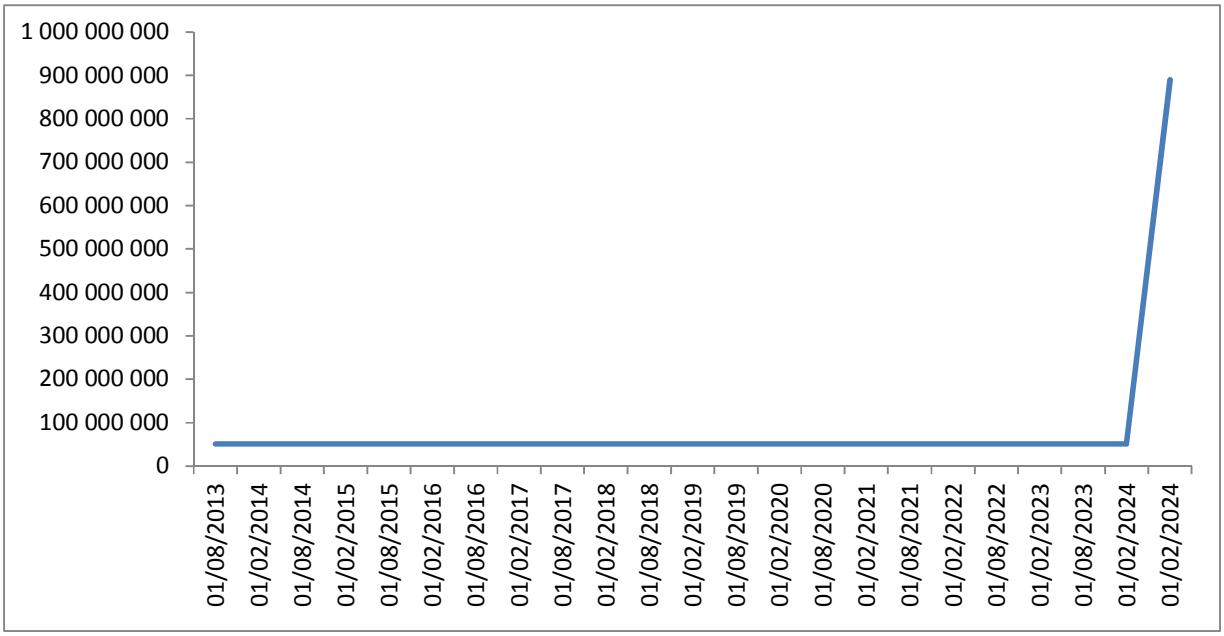
Table 4.4: Bond Issue Scenario

City of PMB	Electricity Infrastructure
Face Value	R 890 000 000.00
Issue Date	01/08/2013
Duration in years	10
Coupon Rate	11.5%
Semi Annual Payments	2
Required Rate of Return (discount rate)	12%

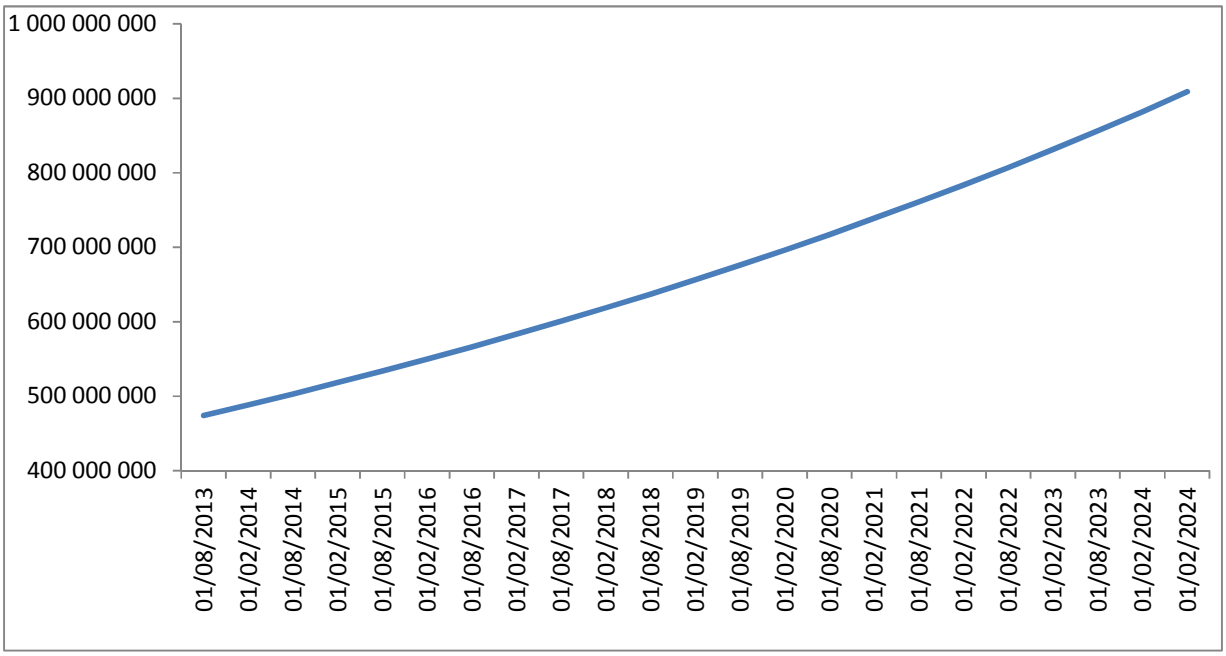
The cash flow implications for the municipality are demonstrated in the graph below. The municipality will have a semi-annual obligation of R51.2 million for 10 years (20 payments over a 10 year period) and a balloon payment of R890 million on 1 February 2024. The semi-annual coupon payment translates to about R8.5 million rand per month.

The estimated total service charges received by the municipality for the 2012/13 financial year is estimated at R1.8 billion. For simplicity it is assumed that at least 50% of the total service charges are electricity charges. It is also conservatively assumed that total electricity charges will increase in real terms by 4% per annum. The estimated cash flow from the electricity service charges are displayed in graph 4.6.

Graph 4.5: Bond Payments Cash Flow

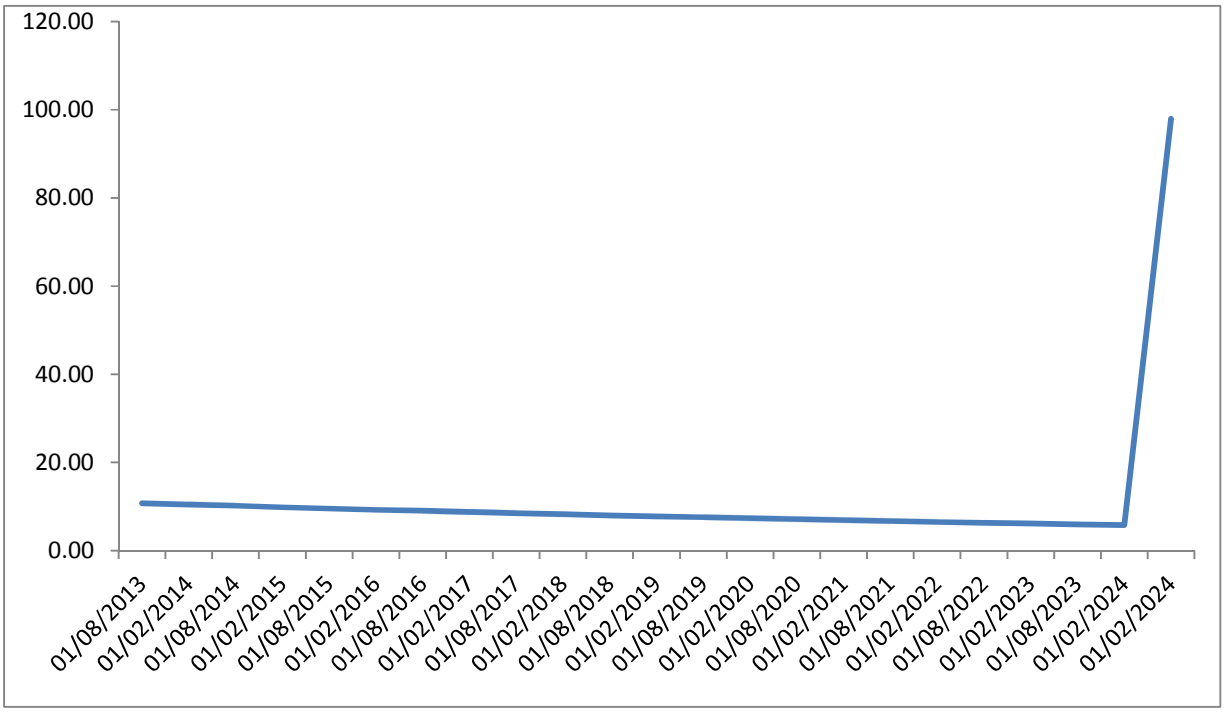


Graph 4.6: Estimated Electricity Service Charges Cash Flow



It seems that the coupon payments will easily be financed by the electricity service charges. The coupon payments as a percentage of the electricity service charges also decrease from about 10% in 2013 to about 7% in 2024, i.e., decreasing financing costs. However the balloon payment will represents a massive 121% of the electricity service charges in 2024, thus provision will have to be made during 2024 to adequately service the balloon payment.

Graph 4.7: Quarterly Bond Payments as a % of Quarterly Service Charges Income



The present value (2013) of the bond as displayed in table 4.4 will be about R865 million. The present value (2013) of the electricity services charges cash flow (as displayed in graph 4.6 and assumed discount rate of 6% per annum) is estimated at R9.5 billion. This indicates that the bond borrowing costs for the municipality will be about 9%. The financing costs seem very reasonable and will be easily financed by the municipality. However it must be noted that the model is based on a number of assumptions that can have a significant influence on the bottom line.

5. PREREQUISITES FOR A WELL FUNCTIONING SUB-NATIONAL BORROWING MARKET

Freire, et al. (1998) states that whenever traditions of fiscal responsibility are weak, accountability is immature and administrative disciple is poorly developed; there is a risk that lower level government may abuse their borrowing authority. They therefore emphasize the importance of a proper regulatory framework. They further state that the need for a proper regulatory framework is especially needed in new democracies due to the lack of a clear boundary between national and local government liability, causing sub-national defaults to be passed onto national government. This could also have severe implications on the credit record and worthiness of national government. To address these risks it is proposed that the regulations focus on a) set limits on the annual or accumulated deficit or stock of debt; and b) set controls on specific debt instruments.

Based on a sample that includes Indonesia, Mexico, the Philippines, Poland, and South Africa, Martell and Guess (2006) consider the legal framework to be of paramount importance and suggest establishing such a framework first in a sequence of reforms, followed by a viable supply-side and a creditworthy demand-side of the borrowing market. A regulatory framework should at least deal with three challenges:

- First, a regulatory framework must not prohibit sub-national borrowing. Rather, the legal framework should be such that sub-national entities are allowed to engage on their own with financial markets to finance their projects. In that sense, the regulatory framework enables demand by devolution of borrowing power to sub-national entities. It is furthermore important to stipulate which levels of government may borrow. This helps regulating the interaction of different levels of government.
- Second, a regulatory framework should provide predictability, clarity and confidence in sub-national borrowing. Only a clearly stated legal framework can encourage participants, ranging from investors to municipal officers, to engage with sub-national borrowing. To play this overarching role, the design of the framework is crucial: The framework needs to be well formulated, comprehensible and consistent. It also has to cover all necessary aspects.

- Third, a good regulatory framework can reduce the risk of imprudent borrowing by preventing over-borrowing and by providing instructions on how to deal with financial crises. Over-borrowing at the sub-national level and instability at the macroeconomic level in form of financial deficits or inflation are less likely to happen when there is a good system of regulations

Freire, et al. (1998) argue such a framework should focus on some basic conditions that are needed for the successful development of a local municipal bond market. These conditions include the following:

- Local governments should have a good fiscal and management system and capacity to generate consistent and strong revenues;
- Long-term funds should be available, financial markets should be deep to facilitate the supply of savings through formal networks;
- The macroeconomic situation should be stable – macroeconomic instability increases the risk of long-term commitments;
- Investors should be familiar with the system; there is a need for a secondary market so that investors can sell their assets prior to maturity (increasing the liquidity of otherwise liquid assets);
- Rating agencies and bond insurers should be encouraged to play their role of informing the public of the risk of the operations.
- The regulatory framework should be in place, transparent and adapted to the circumstances of the government.

Vulovic (2010) argues that for certain, appropriate regulatory frameworks where borrowing or deficit financing is only allowed to finance capital investments (the so-called “golden rule”) accompanied by limits on the level of debt and debt servicing capacity can reduce the chances of default and debt crises. However, other institutional factors must be present. In particular, sub-national governments must have access to significant tax bases because otherwise, even if borrowing is put into productive use, it may still cause fiscal crises. Dependence on inter-governmental transfers might lead to unsustainable borrowing since high levels of transfer dependence often undermine the credibility of the central government's commitment not to bail out troubled sub-national governments. By a similar logic, when sub-national governments are funded primarily

by the taxes they raise and collect themselves, the central government can commit more easily to a no bail-out policy, thus giving creditors and voters stronger signals and incentives to "punish" sub-national officials for excessive spending and borrowing. Table 5.1 gives a short overview of the main controls implemented by a number of Latin American countries.

Table 5.1: Latin America Countries – Controls on Sub-National Borrowing

Country	Borrowing must be authorized	Debt numerical constraints	Constraints to use the debt	Can use tax sharing as guarantees
Argentina	Yes; by central Gov. in case of external debt	Debt service <20-25% revenues	For invest. and reforms	yes
Bolivia	By central and local		for investment	Yes
Brazil	by national and state		For project	Yes
Chile	No			No
Colombia	Domestic: by local legisl. External: By national legislature	Debt service <40% current revenues; debt/current rev <80%	For investment	Yes
Costa Rica	Domestic: by local legisl. External: By national legislature	Debt service <10% of municipal revenues		No
Dominican Rep	Domestic: by local legisl. External: By national legislature	No	No	No
Ecuador	No authorization required	Debt service<20% of revenues	For investment	No
El Salvador	No formal authorization is required National	No	External: for investment	
Guatemala	National legislature		no	no
Honduras	Domestic: by local legisl. External: By national legislature		no	no
Mexico	States and Municipalities are not allowed to contract external debt	Some states limit debt service of municipalities to 35% of revenues	For investment	Yes in case of municipalities
Nicaragua	Yes	No	for investment	No
Panama		None		No
Peru	No authorization for domestic or external unless the guarantee is required	Established annually	Investment	No
Uruguay	By national legislature	Determined in the annual budget		No
Venezuela	Special law Not authorized to borrow abroad	No	No	No

Source: Latin America After a Decade of Reforms, Economic and Social Progress, 1997 Report, IDB

There are, according to Liebig, et al (2008), three broad dimensions of prerequisites for a well functioning sub-national borrowing market: the regulatory framework (discussed

above), the demand side, and the supply-side of the municipal borrowing market. The roles of the last two dimensions of prerequisites are as follows:

- The Demand Side – Creditworthiness. Regardless of whether loans or bonds are chosen, a borrower's creditworthiness is likely to be important criteria for lenders in making investment decisions. The creditworthiness of municipalities is the main demand-side requirement for sub-national borrowing. Creditworthiness is disclosed through credit ratings determined by credit rating agencies. The assessment of creditworthiness is very complex, as many factors influence the ability to repay the debt. Vulovic (2011) states that theoretically, two groups of factors can influence sub-national creditworthiness. On the one side, those are economic and financial factors, on the other political and institutional factors. In developed countries, signals of sub-national creditworthiness include borrower's debt, finances, administration, and economy. However, in developing countries additional factors may affect a municipality's creditworthiness, including intergovernmental transfer structure, history of defaults, legal issues, economic conditions, outstanding debt, and pledged security. Often municipal creditworthiness is limited by factors beyond the municipality's control, such as national legislation that sets local tax base restrictions and tax rate ceilings. To promote creditworthiness it is, therefore, imperative that the municipalities are open and transparent, especially from a financial point of view, and are rated.

- The Supply Side – Capital Markets. Strong financial institutions represent the supply-side requirements for sub-national borrowing. Vulovic (2011) states that there has been a debate in the literature on whether loans or bonds are more appropriate for sub-national borrowing. "Developing nations, however, have no reason a priori for one of these end points over the other. Bank lending to municipalities can operate side by side with a municipal bond market." Both loans and bonds have different strengths and weaknesses that can be evaluated according to the price of capital, maturities, and monitoring functions.

The Office of Investor Education and Advocacy (the Office) states that the type of municipal bond (type of debt instrument) issued affects both the risk of default and the value of the bond. They distinguish between two types of bonds, i.e., general obligation

bonds and revenue bonds. A general obligation bond is a type of municipal bond that is secured by a local government's pledge to use legally available resources, including tax revenues, to repay bond holders. Most general obligation pledges at the local government level include a pledge to levy a property tax to meet debt service requirements, in which case holders of general obligation bonds have a right to compel the borrowing government to levy that tax to satisfy the local government's obligation. Because property owners are usually reluctant to risk losing their holding due to unpaid property tax bills, credit rating agencies often consider a general obligation pledge to have very strong credit quality and frequently assign them investment grade ratings (Office of Investor Education and Advocacy, Sec Pub. number 134 (12/12)).

A revenue bond is a special type of municipal bond distinguished by its guarantee of repayment solely from revenues generated by a specified revenue-generating entity associated with the purpose of the bonds, rather than from a tax. Unlike general obligation bonds, only the revenues specified in the legal contract between the bond holder and bond issuer are required to be used for repayment of the principal and interest of the bonds; other revenues (notably tax revenues) and the general credit of the issuing agency are not so encumbered. Because the pledge of security is not as great as that of general obligation bonds, revenue bonds may carry a slightly higher interest rate than general obligation bonds; however, they are usually considered the second-most secure type of municipal bonds (Office of Investor Education and Advocacy, Sec Pub. number 134 (12/12)).

From a more practical point of view and pre-assuming that the theoretical prerequisites as stated above are in place, the financial position of the municipalities that have issued bonds can be used as an intuitive check list or guideline to determine the ability and viability of the KZN municipalities to participate in the municipal bonds market, i.e., to issue bonds.

The below table (table 5.2) displays the average of various income categories' contribution to the total income of the city of Johannesburg, Cape Town and Ekurhuleni (average for the 3 Bond Issued Munic's), the Ethekweni municipality, the average of the Msunduzi, Hibiscus Coast, Newcastle, uMhlatuze municipalities and the average of the rest of the KZN municipalities. For example, property rates, on average, account for

14.60% of the total income for the city of Johannesburg, Cape Town and Ekurhuleni, respectively, whilst property rates account for 16.53% of the total income for the city of Durban, etc.

Intuitively it seems that the revenue structure of the four big municipalities correlates significantly with the revenue structure of the city of Johannesburg, Cape Town and Ekurhuleni. This is further supported by the correlation statistics displayed in the table. On the other hand, the revenue structure of the rest of the KZN municipalities does not compare favourably with the revenue structure of the city of Johannesburg, Cape Town and Ekurhuleni.

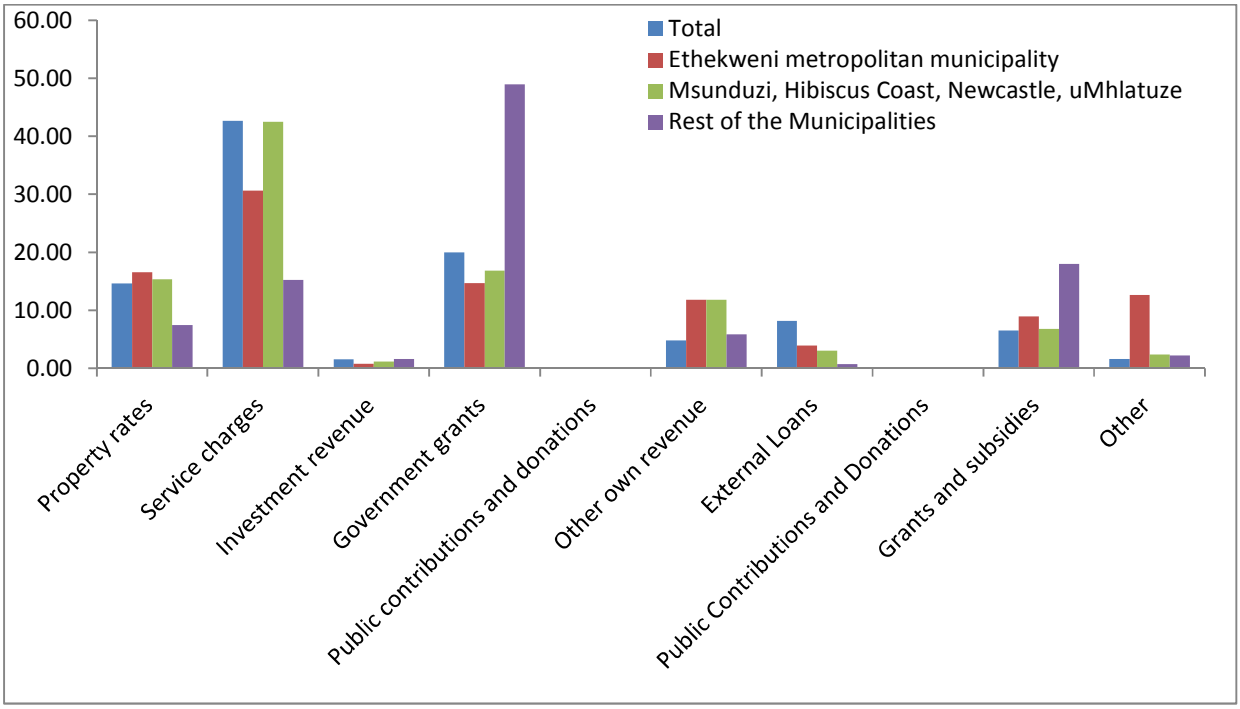
Table 5.2: Proportion of the various categories of income to total income

Total Income, 2009/10		Average for the 3 Bond Issued Munic's	Ethekweni metropolitan municipality	Msunduzi, Hibiscus Coast, Newcastle, uMhlatuze	Rest of the Municipalities
As a % of Total Income					
Operating	Property rates	14.60	16.53	15.37	7.44
	Service charges	42.63	30.59	42.47	15.25
	Investment revenue	1.54	0.79	1.16	1.59
	Government grants	19.98	14.65	16.85	48.91
	Public contributions and donations	0.13	0.13	0.00	0.01
	Other own revenue	4.84	11.80	11.83	5.85
Capital	External Loans	8.14	3.90	3.04	0.76
	Public Contributions and Donations	0.03	0.00	0.08	0.00
	Grants and subsidies	6.47	8.97	6.82	18.01
	Other	1.63	12.63	2.37	2.18
Total		100.00	100.00	100.00	100.00
	Correlation		**0.89**	**0.97**	**0.50**

(Source: National Treasury, LGR Database, Stats SA, own calculations)

The analysis of table 5.2 is further supported through the graphical illustration of the data presented in table 5.2. It seems fairly evident that there is a significant positive correlation between property rates and service charges and the ability and viability to issue bonds. On the other hand, there seems to be a significant negative correlation between government grants and subsidies and the ability and viability to issue bonds.

Graph 5.1: Comparing the Revenue Structure of the City of Johannesburg, Cape Town and Ekurhuleni with the Revenue Structure of the KZN Municipalities



The use of financial ratio analysis can also be used to determine the ability and viability of a municipality to participate in the municipal bond market. Table 5.3 displays various financial ratios for the three cities for the two financial years as well as the average ratios for each of the two years. For example, during the 2010 financial year, bonds accounted for about 10.25% of the total asset base of the three municipalities compared to 10.83% during the 2011 financial year. Service charges and property taxes as a percentage of total income improved from 36% during the 2010 financial year to 41% during the 2011 financial year. The average current ratio (Current Assets/ Current Liabilities) for the three municipalities improved from 0.90 during the 2010 financial year to 1.05 during the 2011 financial year.

Table 5.3: Financial Rations – 2010 and 2011 financial years for the Three Bond Municipalities

	City of Johannesburg MM	Ekurhuleni MM	City of Cape Town MM	Average 2010	City of Johannesburg MM	Ekurhuleni MM	City of Cape Town MM	Average 2011
Bonds as a % of Total Assets	15.57	0.53	14.63	10.25	15.80	3.16	13.52	10.83
Bonds as a % of Total Long Term Debt	50.44	6.32	49.70	35.49	52.53	27.99	48.22	42.91
Bonds as a % of Fix Assets	18.62	0.56	21.12	13.43	19.64	3.42	19.63	14.23
Bonds as a % of Short Term Assets	100.04	13.23	49.91	54.39	88.42	62.91	58.33	69.89
Bonds as a % of Total Income	55.97	3.99	42.26	34.08	63.88	20.64	38.66	41.06
Bonds as a % of Service Charges	337.16	25.97	102.14	155.09	284.98	145.61	81.16	170.59
Interest Paid as a % of Total Income	8.47	3.33	0.02	3.94	6.64	3.51	0.26	3.47
Interest Paid as a % of Short Term Assets	15.13	11.04	0.02	8.73	9.19	10.70	0.39	6.76
Income as a % of Total Assets	27.83	13.21	34.63	25.22	24.73	15.29	34.98	25.00
Service Charges as a % of Total Income	16.60	15.38	41.37	24.45	22.42	14.17	47.63	28.07
Property Taxes as a % of Total Income	17.02	21.41	0.00	12.81	18.88	21.05	0.00	13.31
Current Ratio	0.46	0.73	1.52	0.90	0.56	1.02	1.57	1.05

(Source: National Treasury, LGR Database, Stats SA, own calculations)

Table 5.4 displays various financial ratios for the KZN municipalities. None of the municipalities have issued bonds so all the bond ratios are zero. Service charges and property taxes as a percentage of total income deteriorated slightly from 24% during the 2010 financial year to 23% during the 2011 financial year. The average current ratio (Current Assets/ Current Liabilities), on the other hand, for the municipalities, improved from 1.03 during the 2010 financial year to 1.19 during the 2011 financial year.

Table 5.4: Financial Rations – 2010 and 2011 financial years for the KZN Municipalities

	Ethekweni	Msunduzi, Hibiscus Coast, Newcastle, uMhlatuze	Rest of the Municis	Average	Ethekweni	Msunduzi, Hibiscus Coast, Newcastle, uMhlatuze	Rest of the Municis	Average
Bonds as a % of Total Assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bonds as a % of Total Long Term Debt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bonds as a % of Fix Assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bonds as a % of Short Term Assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bonds as a % of Total Income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bonds as a % of Service Charges	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest Paid as a % of Total Income	12.84	8.12	0.02	6.99	9.16	8.20	0.38	5.91

Interest Paid as a % of Short Term Assets	14.33	15.73	0.06	10.04	9.00	16.65	0.95	8.87
Income as a % of Total Assets	20.39	17.02	38.29	25.23	20.16	20.15	35.41	25.24
Service Charges as a % of Total Income	14.15	8.93	2.25	8.44	14.15	12.59	2.93	9.89
Property Taxes as a % of Total Income	20.49	21.95	4.19	15.55	18.33	16.21	4.37	12.97
Current Ratio	1.07	1.15	0.86	1.03	1.23	1.41	0.92	1.19

(Source: National Treasury, LGR Database, Stats SA, own calculations)

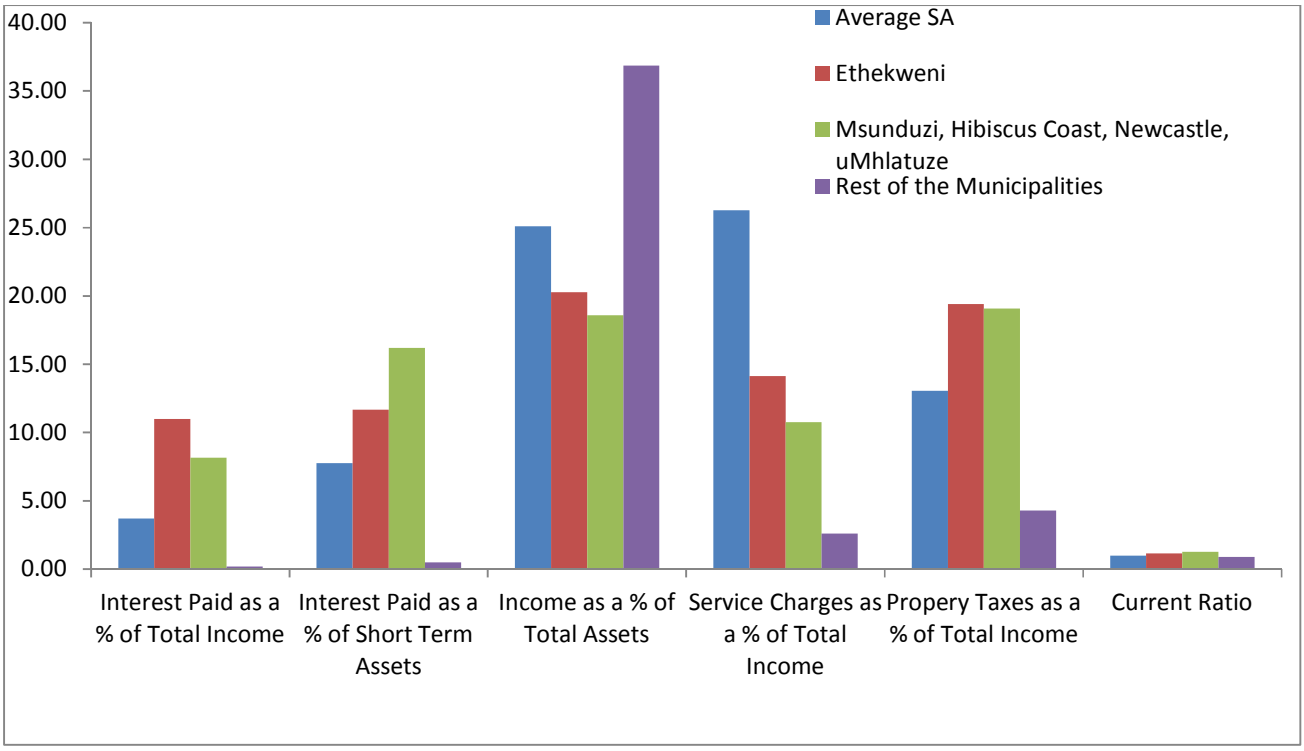
Table 5.4 displays the average financial ratios of the city of Johannesburg, Cape Town and Ekurhuleni and the KZN Municipalities. A financial ratio comparison (table 5.4 and graph 5.2) intuitively suggest that that the four big KZN municipalities could indeed be able to participate in the SA municipal bond market. On the other hand, the average financial ratios between the city of Johannesburg, Cape Town and Ekurhuleni and the financial ratios of rest of the KZN municipalities differs substantially, suggesting that these KZN municipalities will find it hard or difficult to successfully participate in the SA municipal bond market.

Table 5.5: Financial Rations – Comparing Average Financial Ratios of the Three Bond Municipalities with the KNZ Municipalities

	Average SA	Ethekweni	Msunduzi, Hibiscus Coast, Newcastle, uMhlatuze	Rest of the Municipalities
Bonds as a % of Total Assets	10.54	0.00	0.00	0.00
Bonds as a % of Total Long Term Debt	39.20	0.00	0.00	0.00
Bonds as a % of Fixed Assets	13.83	0.00	0.00	0.00
Bonds as a % of Short Term Assets	62.14	0.00	0.00	0.00
Bonds as a % of Total Income	37.57	0.00	0.00	0.00
Bonds as a % of Service Charges	162.84	0.00	0.00	0.00
Interest Paid as a % of Total Income	3.70	11.00	8.16	0.20
Interest Paid as a % of Short Term Assets	7.75	11.67	16.19	0.50
Income as a % of Total Assets	25.11	20.27	18.59	36.85
Service Charges as a % of Total Income	26.26	14.15	10.76	2.59
Property Taxes as a % of Total Income	13.06	19.41	19.08	4.28
Current Ratio	0.98	1.15	1.28	0.89

(Source: National Treasury, LGR Database, Stats SA, own calculations)

Graph 5.2: Financial Rations – Comparing Average Financial Ratios of the Three Bond Municipalities with the KNZ Municipalities



5. SUMMARY AND CONCLUSIONS

For many municipalities in KwaZulu-Natal and in South Africa in general, the balance between the expenditure responsibilities legally assigned to them and the locally derived resources legally available to them (i.e. local taxes and service charges) means that national capital grants are critical for local infrastructure services. This applies especially to financially weak municipalities, where some form of national government capital grant is their only practical form of funding for municipal infrastructure.

The very high dependence on limited own revenue and national government capital grants seriously constrain infrastructure delivery in the municipalities and therefore growth and development. The various, most often violent, service delivery protests are testimony of the serious infrastructure backlogs in most municipalities. There is therefore a serious argument and an almost simple logic that borrowing is a possible

solution to the situation. However borrowing is only “good” or optimal when a number of pre-requisites are in place.

The first pre-requisite of a proper regulatory framework is partially satisfied, i.e., South Africa has put in place a regulatory municipal borrowing framework that aims to encourage the development of the municipal borrowing market, although some work is still required in order to develop an efficient secondary municipal bond market. But in principle there is no national constraint or limit on the municipal bond market. Yet only three municipalities have any issued municipal bonds. This can be because another significant pre-requisite, i.e., credit worthiness, is predominantly lacking in most municipalities in SA and KZN.

Another very important condition is the municipalities’ ability to generate own revenue or income. There seems to be a direct correlation between “own” revenue and the ability and viability to issue municipal bonds. If creditworthiness and “own” revenue is taken into account then the five “big” municipalities certainly have the potential to issue municipal bonds and in some cases it is indeed desirable for these municipalities to issue bonds rather to borrow from banks or use “own” revenue. There are several important reasons for these municipalities to consider borrowing to fund municipal infrastructure, for example:

- Borrowing allows the delivery of infrastructure to be accelerated
- Borrowing allows infrastructure costs to be shared with future beneficiaries
- Borrowing can mean saving on infrastructure costs
- Borrowing can increase the municipal management focus on financial sustainability
- Borrowing builds a credit history

There are also some municipalities (about 5) that operate on the periphery, i.e., municipalities that could issue municipal bonds. It is important that these municipalities improve their creditworthiness by focusing on transparent city budgets, credible accounting systems and independent audits, a sound competitive environment with rational pricing policies and monitorable performance criteria for monopoly services.

These municipalities may find it beneficial to avail themselves of a credit rating by a recognized rating agency.

However, and unfortunately, the vast majority of municipalities in KZN will not find it desirable or viable to issue municipal bonds simply because of their creditworthiness and inability to generate “own” revenue. Although most of these municipalities could, in theory, improve their creditworthiness they simply will not be in a position to generate sufficient “own” revenue to participate in the municipal borrowing market. These municipalities simply do not have the asset base and the economic base to generate “own” revenue. These municipalities will continue to be dependent on national government capital transfers. However, in theory, the greater the borrowing activity from those municipalities that can afford to borrow, the bigger the portion of the national government capital grants that can potentially be transferred to the non-borrowing municipalities.

The article therefore recommends that the municipal bond be afforded greater prominence and urgency; that the current regulatory framework be strengthened to support both the primary and secondary municipal bond markets and that National Treasury investigate the possibility of tax incentives. There also needs to be greater coordination and alignment of the municipal finance system and transparency between the three spheres of government. Municipalities than can issue municipal bonds should be encouraged to avail themselves of a credit rating by a recognized rating agency and to actively participate in the municipal bond market. There is, for example, no reason why the Msunduzi municipality cannot issue a municipal bond to finance their electricity upgrade programme. It makes both financial and economic sense, depending on the municipalities ability to obtain a “good” credit rating.

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