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Debt markets and corporate debt structure in an emerging market: The South African example☆

Kalu Ojah *, Kishan Pillay

Wits Business School, Studies in Financial Markets and Macroeconomics, University of Witwatersrand, 2 St David's Place, Parktown, Johannesburg, 2193, P. O. Box 98, Wits 2050, South Africa

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ABSTRACT

This is a first attempt at gauging the effects of corporate public debt issuance on the debt structure, risk profile and valuation of firms in an emerging market. We find that financial services firms, along with government institutions, are important early supporters of an organized public debt market. Firms in this market use equity, public debt and private debt funds simultaneously as need be. Consistent with predictions of the corporate debt structure literature, public debt-issuing firms are larger, older, more profitable, and less informational opaque than non-public debt-issuing firms. Moreover, public debt-issuing firms experience significant reductions in both overall and systematic risks, and incur lower cost of capital following issuance than non-public debt issuers. These and other findings of the study suggest deepening national debt markets can be a fruitful financial market development exercise for emerging markets.

1. Introduction

Up until the late 1980's, a corporate public debt market was non-existent in South Africa. Consequently, when considering external financing, firms had two choices. They either issued equity or they borrowed privately from a bank or a non-bank private lender. However, research has shown that the lack of competition from other debt suppliers gives banks an information monopoly (Rajan, 1992; Houston and James, 1996). This monopoly stems from the fact that the information communicated by the firm to the bank is a result of their banking relationship, and cannot be easily communicated to potential lenders in the short run. A firm wishing to switch lenders would find it difficult to do so in good time. As a result, banks are able to expropriate rents from the firm's investments because they are aware of the firm's inability to find alternative debt funding in good time and terms — thus, the firm bears a hold-up cost in the process. Therefore, in the absence of a corporate public debt market, firms with profitable investments most likely turn to other private lenders for possible less costly financing (Ojah and Manrique, 2005), though non-bank private debt providers perform largely similar functions as banks, and are thus, capable of expropriating some rent from a firm's investments as well.

It is therefore, plausible that South African firms (as those in most emerging capital markets) may have suffered hold-up cost due to the near-monopoly nature of their main debt fund suppliers (banks). The advent/development of an organized public debt market (Bond Exchange of South Africa (BESA)) naturally provides an additional supply of capital which has more diversified terms (bond indenture) than non-bank private debts have relative to bank debts. All else equal, this increase in supply and terms of debt funds would increase competition in the capital market, which in turn would affect: (1) firms' debt and capital structures (Houston and James, 1996; Johnson, 1997; Denis and Mihov, 2003; Ojah and Manrique, 2005), (2) firms' risk profile (Modigliani and Miller, 1963; Hadlock and James, 2002; Denis and Mihov, 2003) and (3) firms' cost of capital and valuation (Modigliani and Miller, 1963; Myers, 1977; De Angelo and Masulis, 1980; Reeb et al., 2001; Denis and Mihov, 2003).

Although this market is still quite young, this paper uses data based on listed firms to examine and provide preliminary findings on the firm-specific determinants of the choice of public debt versus private debt (debt structure), the effects of public debt issuance on systematic (and overall) risks of the firm and the resultant cost of capital, and in the process offer some answers to the question of whether organized debt markets ought to be among the financial market development considerations of emerging markets such as

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* Corresponding author. Tel.: +27 11 717 8106; fax: +27 11 717 8081.
E-mail address: kalu.ojah@wits.ac.za (K. Ojah).

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South Africa[1] (Singh, 1999; Hooper, 2007). Singh (1999) questions the wisdom of emerging market economies establishing organized securities markets when such economies either lack the requisite institutional infrastructures or effective demand for the securities.[2]

To date, corporate debt structure studies have been approached from the view point of why bank (private) debt is special (Fama, 1985; Diamond, 1991; Houston and James, 1996; Hadlock and James, 2002; Hooks, 2003, and others). We frame the question from the view point of "why firms seek public debt?" as well, in order to add some insightful voice to the call for national debt market deepening as a means of blunting the effects of cross-border financial market shocks (Ma and Remolona, 2005; Plummer and Click, 2005; Hooper, 2007; Johansson, 2008). In our recollection, existing corporate debt structure studies (i.e., the choice of public debt versus private debt funding) have scarcely focused on an emerging capital market and used data from firms' financial reports and/or local organized public debt markets (such as Mexican Bond Exchange or Korean Bond Market).[3] There are reasons for this paucity of studies focused on emerging markets' corporate debt structures. Upon studying South Korea, one of the few emerging capital markets boasting an organized public debt market, Guerrero (2007) notes the following: "Unfortunately, our data do not allow us to distinguish some of those critical effects, a limitation common to similar studies on corporate debt (Schmukler and Vesperoni, 2006, p. 203, the most recent, present a similar caveat). For instance, the data do not allow us to distinguish bank debt from other types of debt…"[4] This highlights the absence of data richness as an obstacle to studying corporate debt structure in emerging markets in detail.

Another possible obstacle is the notion of usually excluding financial firms from capital (debt) structure analyses due mainly to the fuzziness between traditional debts and product-based liability- or deposit-type debts on the books of financial firms. In other words, though financial firms demand debt as well, they are viewed largely as suppliers of debt. Given the fledgling nature of public debt markets in emerging capital markets, excluding financial firms from an already small sample, amount to forgoing learning about some important aspects of financial market development. Yet, understanding the evolutionary nature of such a market, with all industries included, is just as insightful as one that is limited to non-financial firms alone. It is our view that employing appropriate study techniques would permit us to gain rich insights into the early stages of market creation for better future developmental ideas, while awaiting a richer and larger sample for comparative type studies.[5]

[1] The South African national capital market has a world-class operating infrastructure and most of the basic institutional (legal) support structures. And as one of the oldest organized national capital markets in Africa, it has a long history and has benefited from experiential learning.

[2] In one of the few studies that have examined aspects of corporate debt structure in emerging markets (maturity structure effects, to be exact), a result that seems counter-intuitive is recorded (Schmukler and Vesperoni, 2006): They find that in response to financial liberalization, long-term debt decreases and the maturity structure shifts to short-term, on the average; with this outcome being stronger for emerging markets characterized by less developed financial systems. So the establishment of a corporate public debt market may not necessarily be beneficial to firms in the national market as hypothesized in this work.

[3] Using data from these sources — firms' financial reports and local securities exchanges, Houston and James (1996), Johnson (1997) and Denis and Mihov (2003) focus on the US; and Ojah and Manrique (2005) focus on Spain.

[4] Other emerging markets with known form of organized corporate public debt markets are Mexico, Brazil, Malaysia, South Korea and Thailand.

[5] Accordingly, we use a matched-sample technique in this study. We restrict our more important target variables to their dichotomous form, which avoids the issue of fuzziness between conventional and nonconventional types of debt. And where necessary, we are careful to include only debts that meet a strict definition of conventional debt for all firms and particularly for financial firms. Interestingly, we are able to learn, for the first time in corporate debt structure and financial development studies that financial services firms are early active supporters of organized corporate public debt markets, for example.

Briefly, we document that this emerging market's data are consistent with much of the extant theory and empirical evidence on corporate debt structure. We find that firms using the public debt market are larger, older, more profitable, and less susceptible to information asymmetries, than firms that use only private debt markets. Second, public debt-issuing firms experience significant reductions in both overall and systematic risks, and incur lower cost of capital following issuance. Interestingly, we find that financial services firms are early active supporters of the fledgling organized public debt market. Overall, these findings support the call for other emerging markets to consider organized public debt market as a possible fruitful aspect of the financial market development agenda. For the remainder of the paper, we provide a brief historical account and overall structure of South Africa's fledgling public debt market. Next, we provide the literature background that sets up the testable hypotheses. We then describe the data and test design, discuss test results, and conclude the paper.

2. A history of the Bond Exchange of South Africa[6] and overall debt structure

In the late 1980's Eskom, a government agency that produces energy products, began both issuing and making a market in its own bonds. As a result of Eskom's success Transnet and Telkom (other state-owned enterprises) followed suit and began making markets in their own bonds as well. The South African bond market – largely comprised of the central government and its parastatals' issues – was formalised in 1987, following the recommendations of the Jocobs/Stals Inquiry. The Inquiry recommended that the bond market in South Africa be regulated by either the participants themselves or by the Central Bank. The participants chose self-regulation and in 1987 the Bond Market Association (BMA) was formed.

The BMA consisted of bond issuers, banks, brokers and investors who were all in favour of a formalised exchange characterized by high liquidity. However, due to the various, and sometimes, divergent interests represented by the BMA, there were frequent conflicts that culminated in delaying the decision making process of the association. In 1990 the South African National Treasury designed and issued treasury bonds with varying features. Though the Central Bank almost exclusively made a market in these treasury bonds, these treasury bonds were listed on the BMA.

In 1992 the first bond by a corporation, South African Breweries, was issued and listed by the BMA. This was to pave the way for other corporations to follow suit, but that did not materialize until 2000/01. Increasing amounts of corporate debts were issued at the turn of the century on account of the lower inflation and interest rate climates. In 1996 the BMA obtained a formal license and the Bond Exchange of South Africa (BESA) was born. Today the board of the exchange is made up of persons who are completely independent of both owners and users, which suggests that the exchange would function more efficiently now than its earlier days, when as BMA, ownership and management were not separate.[7]

2.1. Overview of South Africa's public debt market and capital structure

In this section, some descriptive statistics are presented to give an overview of South Africa's capital (debt) structure. Bond issues during 1980–1990 were dominated by the central government and state-owned enterprises, with 92% of the bond issues during this period coming from these two entities (Table 1A). As can be seen from the table there were no corporate bonds issued during this period and the only other bond issued in this period came from the Water Authorities, a government agency.

[6] This historical account is largely based on Jones (2002) and Finweek (2006).

[7] See Jones (2002) and Finweek (2006) for additional historical accounts of this debt market.