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Firms' debt choice in Africa: Are institutional infrastructure and non-traditional determinants important?

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ABSTRACT

We use a World Bank survey data on the financing of incremental production to examine firms' debt choice decision in eleven African countries, where capital markets are evolving and/or fraught with inadequate institutional infrastructure. Such a landscape suggests that hitherto overlooked nontraditional factors and institutions may be important determinants of debt choice. Interestingly, we find that some nontraditional factors and institutional infrastructure are robust debt choice determinants. Education level of managers, national incidence of corruption and ethnicity of owners are important for non-bank debt choice in Africa, with non-bank debt markets populated largely by the less formal trade credit and lease markets. Both effective legal and political infrastructures foster firms' preference for non-bank debt while macro-instability discourages preference for non-bank debt; thus, flagging institutional infrastructures as vital for effective non-bank debt markets. Furthermore, we find evidence which confirms that capital markets in Africa are insufficiently spanned by the necessary debt markets; this should motivate relevant authorities to hasten development of public debt markets to supplement the currently limiting non-bank debt markets of trade credits and leases.

1. Introduction

On average, firms in African countries fill the majority of their external finance need by issuing debt contracts (Andrianaivo & Yartey, 2010; Gwatidzo & Ojah, 2009; Nellor, 2008; Ojah & Pillay, 2009; and Rajan & Zingales, 1995). In the African context, therefore, research on the divide of debt sources of capital (debt structure) is as useful, if not more useful than research on the divide between debt and equity sources of capital (capital structure). This research examines the use of bank debt versus non-bank debt in the African environment where most national capital markets are largely evolving and/or lack competitive alternatives to bank fund supply. We examine the factors that influence an African firm to choose one source of debt over another as well as ascertain the extent to which these firms fill their debt finance need using their preferred debt source. Such examinations would, among other benefits, improve the debt structure decision of firms and help define an effective debt market development or reform strategy. Firms' debt choice decisions and debt market development are important related issues that have not received deserving attention in the literature on financing of African firms.[1]

Firms in most African countries find themselves in difficult situations when seeking external finance. Many of them are not listed, so they cannot issue corporate bonds on security exchanges. In other words, the formal non-bank debt markets in these countries are highly illiquid, dominated by government issues and are still in their early stages of development. Further, a number of environmental problems tend to limit the availability of funds to firms in these countries, including: high degree of information asymmetry, poor contract enforcement, and policy uncertainty and reversals. These problems are arguably traceable to the characteristic poor or inadequate institutional infrastructure in most African economies (Asiedu, 2006; Kenny, 2009; Laeven & Giovanni, 2003; Muhanji & Ojah, 2011; Ojah, Gwatidzo, & Kaniki, 2010; and Sen & Velde, 2009). Many economists have hinged African countries' success at mustering effective and sustainable firms on a model that can be deemed a "public-private partnership" formula (Fife & Hosman, 2007; Sen & Velde, 2009; and Thomsen, 2005). Yet,

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[1] Most studies on this issue have been on developed and a few emerging economies. See for example, Hoshi et al. (1993), James (1987), Johnson (1997, 1998), Anderson and Makhija (1999), Cantillo and Wright (2000), Denis and Mihov (2003), Ojah and Manrique (2005), and Alonso et al. (2005). When capital market development are broached for emerging economies, it is usually focused on the banking industry or stock market development, but rarely focused on non-bank debt market development (Ojah & Pillay, 2009).

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among other factors, the growth of these firms (the private sector) is critically dependent on access to finance.[2] So broadly speaking, how do African firms make external financing decisions in the context of their most viable source of capital–the debt market?

Firms favor bank debt over non-bank debt for a number of reasons. First, borrowing from a bank can serve as a good signal to other potential lenders. Banks' signals are considered credible by other lenders because banks have sufficient resources and comparative advantage to evaluate borrowers and are likely to efficiently liquidate firms as compared to other lenders. This is especially so because banks have a comparative advantage in mitigating information asymmetry problems.[3] Second, firms choose bank debt hoping that during difficult times banks will provide funds for investment as well as negotiate roll-over of existing debts. Firms also hope that banks would both expend resources and monitor them so as not to liquidate them when it is sub-optimal to do so (Detragiache, 1994; Hadlock & James, 2002).

It is also cheaper and probably prudent for firms to give fewer lenders (banks) access to proprietary information than to make this information available for public dissemination, which can be exploited by competitors (Yosha, 1995). Fourth, establishing a long-standing relationship with one bank can also be beneficial for the firm. It can result in little or no collateral being required by the bank because the bank can build a profile of the client-firm with the passage of time. Such a profile can serve as a collateral substitute and can lead to the firm receiving attractive interest rates on loans. Further, such familiarity can permit the firm to avoid credit rationing during hard times when most credit providers are not forthcoming.[4]

Conversely, there are a number of factors which can discourage a firm from using bank debts, but instead lead the firm to prefer non-bank debts. A firm may choose non-bank debt instead of bank debt in order to avoid payment of monopoly rents which can result from the firm's long-term relationship with only one bank (Houston & James, 1996; Rajan, 1992). According to Rajan (1992), a borrower who surrenders a portion of his profits over to the lender, above the normal interest rate on loans, may end up exerting less than optimal effort in production. Another disadvantage of using bank debt is that such loans may be from one bank with which the firm may have established an exclusive long-term relationship, which implies that if the bank encounters hard times, the firm may face difficulties accessing loans elsewhere. Furthermore, bank loans may be more expensive than public debt, as a premium of banks' obligations to put aside reserves in support of deposits they use to create loans–a cost which Fama (1985) terms an implicit tax on loans.

Evidently, the above exposition on debt choice decisions are based entirely on a financial landscape characterized by sufficiently spanned capital (particularly debt) markets and adequate levels of institutional infrastructure. Conversely, the landscape in most of Africa is characterized by insufficient spanning of capital markets and inadequate requisite institutional infrastructure, thus suggesting that some potentially important factors which could influence firms' debt choice decisions may have been left unconsidered. In an environment lacking requisite corporate governance culture, any mechanism that minimizes opacity of the firm's activity would reduce potential creditors' concerns about adverse selection and moral hazard, and thus encourage extension of debt funds to the firm. A management team led by highly educated people would be more aware of the consequences of withholding relevant information and/or misuse of borrowed funds than less educated management. This information asymmetry mitigation enhances the chances of a fledging African firm accessing bank debt, particularly where formalized credit provision processes demand a well articulated business and repayment plans. Additionally, an educated management team is more likely to consider the restrictive nature of the non-bank debt markets of trade credit and leases (i.e., limited maturity and tie-in of credit to specific transactions) and consequently shy away from non-bank credits. Therefore, firms run by highly educated management teams are more likely to prefer bank debts than they are likely to prefer non-bank debts.

Kaniki (2008) and Ojah et al. (2010) provide preliminary evidence of discrimination against African-owned firms in the accessing of external finance, particularly in the context of inadequacy of institutional underpinnings. Further, the banking industry in many African countries has significant foreign participation (Claessens, Demirguc-Kunt, & Hizinga, 2001; Van Horen, 2007). Most foreign banks in Africa are likely to follow their clients offshore and operate in their African environment with little consideration for adjusting their business model accordingly. Coupled with the universal conservative nature of banking firms, African-owned firms, many of which are small- to medium-sized firms and lack significant history of operation, may see themselves as less welcomed by banks in general. Consequently, they may show less preference for bank debt while relying on internal equity and the largely business-specific non-bank debt such as trade credits and leases. It therefore seems an open empirical question whether African-owned firms are screened out or discriminated against by banking industries across the continent.

A particular feature of African countries' population distribution is a great deal of urban concentration of both standard and new production technologies. Banks which naturally locate operations close to their clients are largely located in urban areas in African countries. These banks' branching trends are equally within the urban areas or across national borders to urban areas in other African countries, instead of branching into within-country rural areas populated by the unbanked populace.[5] It is therefore safe to posit that the high concentration of bank-to-firm ratios in the urban centers of African countries would mean a relatively high access to bank debt for firms located in urban areas than those located in non-urban areas.

We therefore explore the debt choice pattern of African firms, particularly in the light of inadequacies of the institutional infrastructure underlying capital markets in African countries and the attendant possible non-traditional determinants of debt choice thrown up by such a landscape. This debt choice issue has received a lot of attention in developed economies (Blackwell & Kidwell, 1988; Denis & Mihov, 2003; Hoshi, Kashyap, & Scharfstein, 1993; Houston & James, 1996; Johnson, 1997; Ojah & Manrique, 2005; Rajan, 1992; and others), but has only received scant research attention in African economies. In our recollection, this is the first study in the African context to look at debt structure by using Denis and Mihov's (2003) approach to debt choice for financing incremental production. In developed countries where there are plenty of alternative sources of debt, banks provide a significant portion of firms' external capital (Denis & Mihov, 2003; Houston & James, 1996;

[2] Data from the World Bank's Investment Climate Assessment surveys show that the cost of and access to finance are critical constraints that affect firm growth. One needs to know whether there is one particular source of fund favored by firms and whether firms are getting access to finance via that preferred type of contracts. An understanding of the different kinds of financing problems faced by different firms brings us closer to possibly fashioning effective capital market policies. E.g., access to and cost of finance may be a problem that is acute for small firms and not for large ones. Further, the success of firms (the private sector) is envisaged to contribute to sustainable economic success in Africa via two channels. 1) A successful firm would create jobs and thus, generate incomes for both employees and owners. 2) These increased incomes, in turn, would yield tax revenues which government (the public sector) can channel towards infrastructure provision or expansion.

[3] See Diamond (1984, 1991), Fama (1985), and Seward (1990) on the role of banks in mitigating the effects of information asymmetry.

[4] It must however be noted that the dynamic interactions of a firm with a single bank can result in the firm being locked-in such that the bank can start extracting monopoly rent from the firm. This may result in sub-optimal exertion of effort by the firm (Rajan, 1992).

[5] The case of the expansion of South African and Nigerian banks provides useful anecdotal support (see African Development Bank reports of 2009/2010).