Research Note
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The Microstructure of Corporate Bond Markets in Emerging Economies: Evidence from Africa

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Using survey and interview data gathered from 13 countries in Africa, and bond issuance data from DataStream, this study reveals that corporate bond markets in Africa use reasonably modern trading infrastructure. However, most debt contracts have no provisions that protect investors against risk and uncertainties. The study also revealed that liquidity, the level of investor awareness, complex and costly issuance process, and crowding out by government bonds are some of the key factors that preclude the development of corporate bond markets in Africa.

Introduction

Corporate bond markets form a key part of an ecosystem that fosters the growth of private enterprises in emerging economies. Unlike banks, the markets provide access to larger denominations of debt funds with longer maturity at a more affordable cost. Moreover, corporate bond markets facilitate domestic savings and efficient allocation of surplus funds to more productive yet capital intensive projects while reducing overreliance on the banking sector, thus mitigating financial system instability. Therefore, corporate bond markets accelerate the growth of private sector and hence economic transformation of the host countries. However, corporate bond markets in most emerging economies are less developed. On average, the markets are smaller in size, have a narrow investor base, and are mostly illiquid as most investors hold the debt instruments until maturity. These factors are potentially caused by the markets' microstructure. This study examined the microstructure of corporate bond markets in Africa and identify factors that constrain their growth and development.

Methodology

The study selected countries with corporate bond markets as of 2019 resulting in a sample of 13 countries[1], from which the study focused on their national exchanges. Quantitative data covering a total of 5,023 domestic corporate bond issuances between 2000 and 2019 was obtained from DataStream. This was supplemented with qualitative data gathered from documents obtained from websites of the sample exchanges. Primary qualitative data was gathered using surveys and interviews of participants drawn from key institutions in the

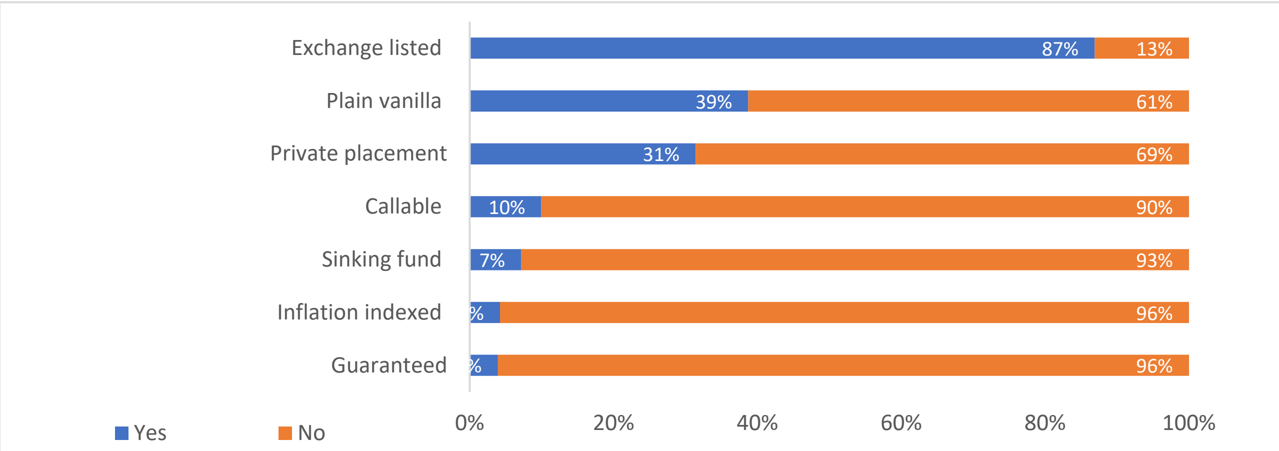
[1] The 13 countries are Botswana, Eswatini, Ghana, Ivory Coast, Kenya, Mauritius, Namibia, Nigeria, Rwanda, South Africa, Tanzania, Uganda, and Zambia.

exchange industry (i.e. exchanges, regulators, and brokerage firms) in each country. Snowballing was used to select at least ten brokerage firms in countries where the number of brokerage firms was more than ten. The interviews were conducted in 2018 and 2019, and a total of 72 institutions were drawn from the 13 sampled countries.

Finding 1: The Structure of Bond Contracts

Figure 1 reveals that most debt contracts are structured in a manner that typically does not protect bondholders against changes to investment environments. Over 90% of issued bonds have no guarantee or sinking fund provisions leaving investors exposed to default risk. A similar proportion has no provisions protecting investors from inflation, thus exposing bond cashflows to erosion of purchasing power during inflation. However, 61% of bonds have variable coupon rates which require revision of applicable rates based on base rates. The figure also reveals that roughly 69% of bonds are publicly issued contrary to the notion that markets with a complex and high cost of issuance tend to attract more private placement to avoid costly public issuance processes.

Figure 1: Structure of corporate bonds issued in Africa between 2000 and 2019

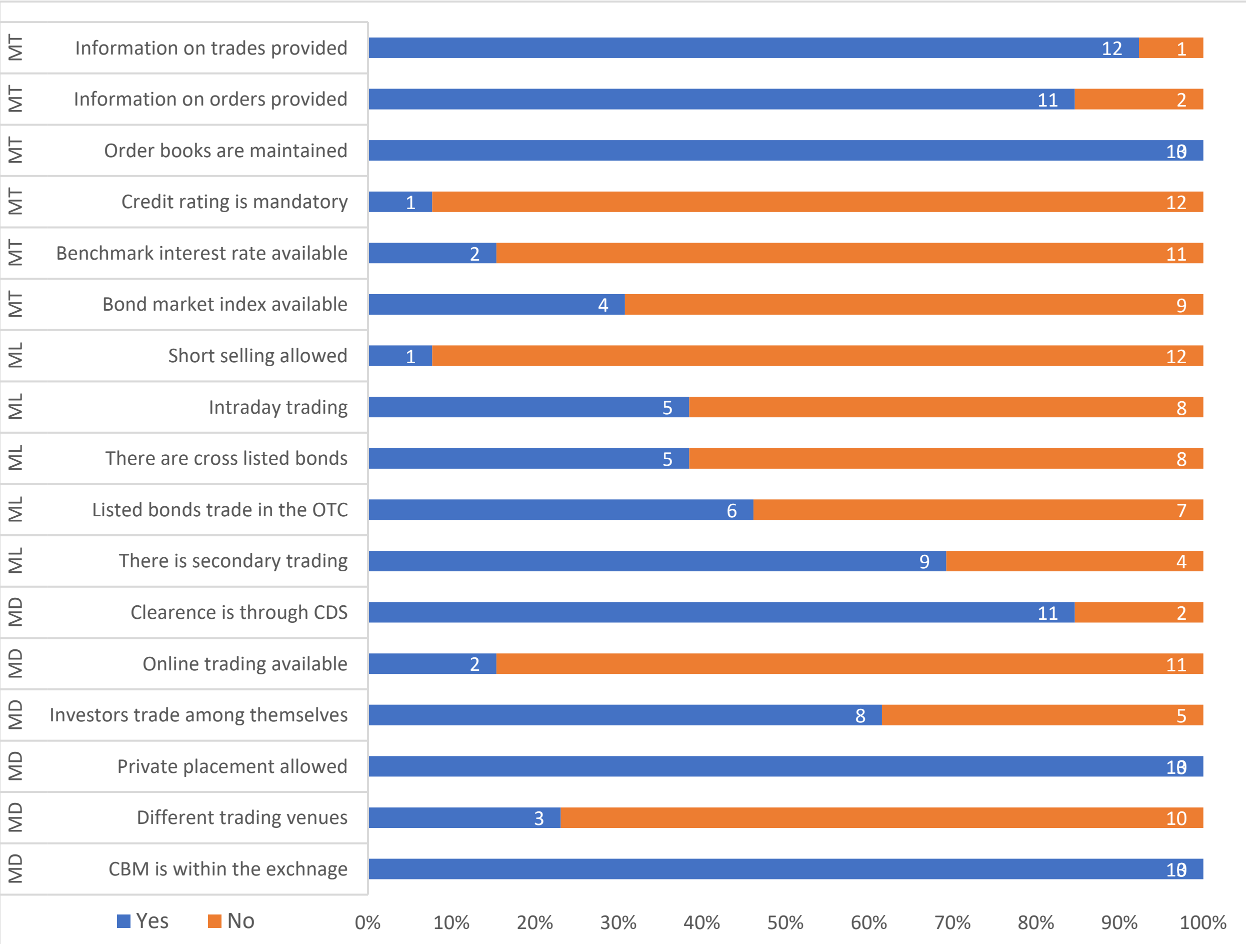


Source: Author's calculations using data on corporate issuance in Africa between 2000 and 2019 as obtained from DataStream.

Finding 2: Market Structure and Design

The corporate bond markets are hosted in countries' national exchanges where issuance and trading take place on the fixed income segment. Thus, corporate bond markets typically share the same infrastructure and, to an extent, trading rules with equity markets. Figure 2 indicates key elements of the markets' structures across countries. The markets have modern trading infrastructures such as automated trading platforms and electronic clearance and settlement systems. Brokers and dealers access the trading system from their offices to enter, amend or cancel orders as well as access market information. The participants expressed satisfaction with the market structure and design. However, there is a need to embrace some practices used in advanced markets (in the US and UK) such as online trading, which is usually associated with lower trading cost and flexibility, and alternative trading venues which are associated with price discovery as a result of competition among the different trading venues. Currently, only two countries have capacity for online trading while only three have alternative trading venues.

Figure 1: Characteristics of the microstructure of corporate bond markets across African countries



Note: The figure covers three main areas of market microstructure: market transparency (MT), market liquidity (ML) and market structure and design (MD). Source: Author's calculations from primary survey data.

Finding 3: Information Transparency

The markets have varying degrees of pre-trade and post-trade transparency. Brokers and dealers have access to limited pre-trade information such as order quantity and prices. The markets publish a summary of post-trade information daily through print and electronic media while traders and other members of the exchange access more detailed information through their trading terminals. Each exchange also broadcasts execution prices on their website during trading sessions. However, participants indicated that the lack of a bond market index (nine countries) and benchmark interest rates (11 countries) impedes bond pricing and assessment of overall market performance, thus harming liquidity. Moreover, credit rating is not mandatory which makes it hard to assess the credit quality of bond issuers when pricing risk.

Finding 4: Market Liquidity

Out of the 13 exchanges, only nine have secondary markets for corporate bonds. However, with exception of South Africa, even the markets with secondary trading report a limited number of deals and an even smaller number of traders involved. A few institutional investors buy most bonds issued in the primary markets, and they typically hold the bonds until maturity. Considering this buy-and-hold strategy, liquidity facilities such as short selling are necessary to boost trading frequency, especially by speculators. However, only South Africa allows short selling so far. Additionally, only South Africa and Kenya have hedging facilities, in particular within the derivatives market, which enables investors to minimise risk exposure. Consequently, traders without access to these opportunities adopt a more cautious trading strategy which significantly affects market liquidity.

Finding 5: Major Constraints on the Development of Corporate Bond Markets in Africa

The following themes emerged as major constraints on the development of corporate bond markets in Africa.

The key factor among the set of major constraints is the lack of liquidity. Illiquidity in the corporate bond markets of Africa stems from a narrow investor base that consists of few institutional investors whose strategy is to match maturity with their obligations. The institutional investors therefore typically buy and hold the debt instruments until maturity. On the other hand, the narrow investor base is caused by the low number of issuances and listings which are often too small to attract a reasonable number of institutional and foreign investors. Corporate bond market liquidity is also affected by the limited level of awareness that cuts across investors and brokers. Respondents noted that most investors and brokers are not conversant with how to analyse bond performance and they are also not able to devise a trading strategy. As a result, investors opt for equity (following advice from brokers) or buy bonds that they can hold until maturity. Another major cause of illiquidity is the lack of adequate market information to facilitate an evaluation of bond risk and return, both in the primary and secondary markets. Most markets do not have benchmark interest rates and bonds are not rated making it difficult for ordinary investors to price risk. This further reduces the frequency of trades.

Besides liquidity, corporate bonds in Africa are mainly constrained by a complex issuance process which is both lengthy and costly. Participants noted that public issuance of corporate bonds involves many professionals such as accountants, auditors, investment banks, legal experts, marketers, and sometimes valuers. Each of these parties takes time to accomplish their roles, making the process time-consuming. The total amount incurred to prepare documents required, the fees charged by the professionals involved and the fees payable to the market regulator and exchange, together make the public issuance process costlier and uneconomical, especially for firms that intend to borrow a relatively small amount of funds. This also inhibits the frequency of issuance and ultimately hurt liquidity.

Additionally, frequent issuance of government bonds crowds out the issuance of corporate bonds in different ways. First, government bonds are considered less risky making them more attractive than corporate bonds, especially to foreign and institutional investors who normally prefer less risk. Given this advantage of government bonds, the competition for investors between these two security markets narrows the investor base in both primary and secondary corporate bond markets, exacerbating illiquidity. Secondly, firms use government bond rates as benchmark reference rates when issuing corporate bonds. Thus, if government bonds pay high-interest rates, it becomes more costly for firms to borrow from the corporate bond market since corporations pay an equivalent of government bond rates plus a premium to compensate for the potential high risk associated with private firms. This deters new issuances and precludes faster development of corporate bond markets in Africa.

Policy implications

Some interventions that can improve the level of development of corporate bond markets in Africa include giving incentives to attract new listings, spur more issuance, attract more investors, and ultimately improve market liquidity. Investor education programmes and training of brokers can also improve awareness about corporate bond markets and increase the number of participants as well as the frequency of trading. Excessive government borrowings which affect interest rates and crowd out corporate bonds can be mitigated if the governments exercised fiscal discipline.

Moving forward…

This study did not gather information from institutional investors (the main source of funds in corporate bond markets) or issuing firms. A study that covers these two groups of participants could help to (i) understand the reasons for the slow adoption of corporate bonds as a source of debt among listed firms, and (ii) understand how the investment strategies of institutional investors affect liquidity in corporate bond markets. Other related issues that could be investigated include the extent of direct lending by institutional investors in the private debt market and how it is impacting the growth of corporate bond markets in Africa.

This note is based on research conducted as a part of PEDL ERG 5415.