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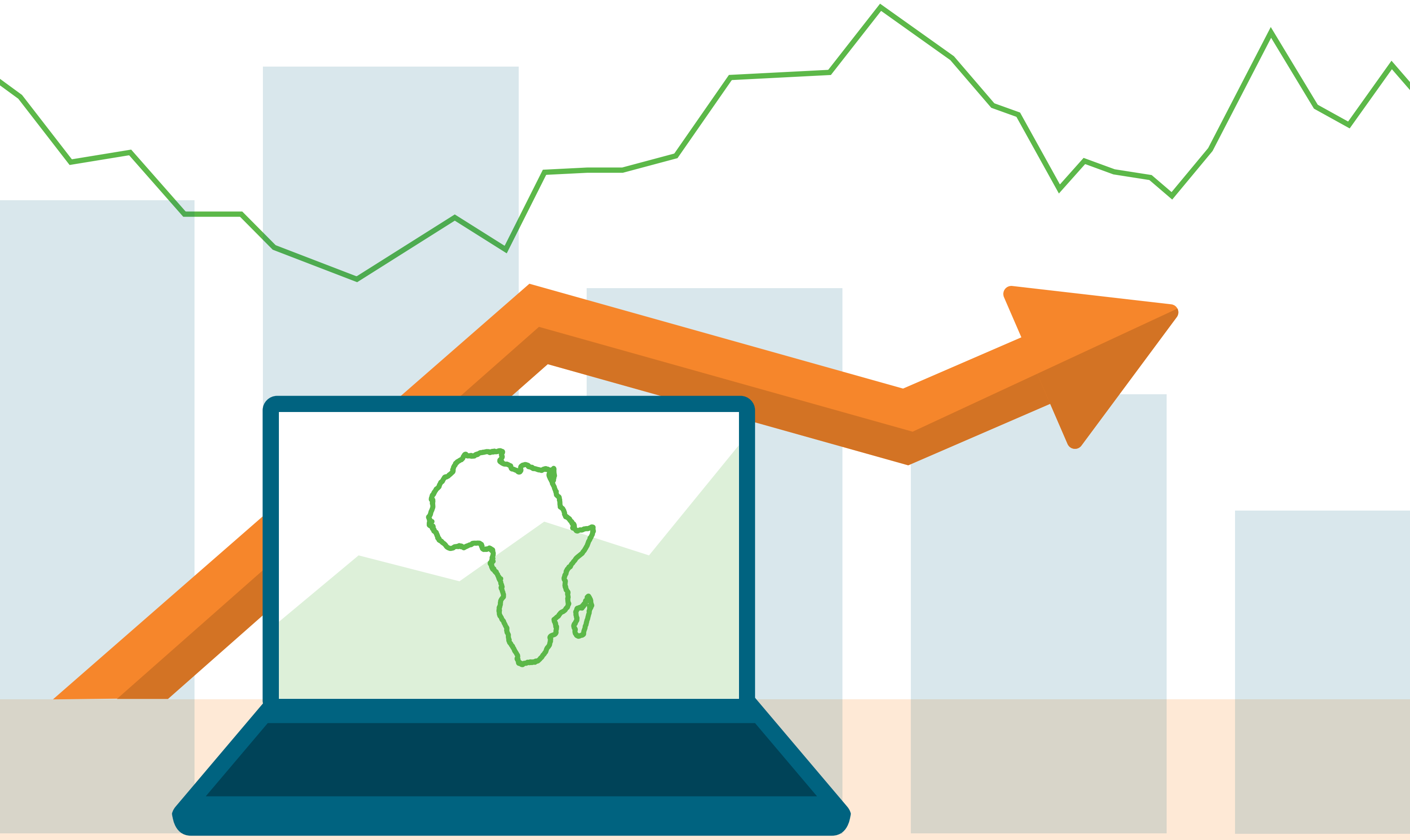

# Africa Debt Monitor Analysis

## Primary-dealer systems and stock exchanges: Gateways to local market development

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# 1. INTRODUCTION

## OVERVIEW

The Africa Debt Monitor (ADM), launched in September 2019, provides a unique platform for sharing information on African central government debt and debt management policies, practices and institutional arrangements. It offers multiple tools for cross-country peer-learning on public debt issuance and management and provides policymakers with additional insight into the capacity and capability of their debt offices to manage debt and associated risk.

This report forms part of the ADM Analysis series, a set of reports which look into trends in debt management in Africa using quantitative and qualitative information available on the ADM. The other two reports available in 2019 are ‘More debt reporting, more marketable debt’ and ‘Three Cs for DMOs: Co-ordination, consistency and clarity’. Additional reports will be produced annually as a complement to the annual Africa Debt Monitor data update.

Public-debt managers find many benefits in issuing marketable debt. Marketable debt, which includes instruments tradable in organised or financial markets, increases primary-market depth, particularly by increasing the variety of instruments the government can issue, allowing it to attract a diverse base of investors. This should lead to more flexibility in medium-term debt strategy planning and enhance debt sustainability. Finding ways to increase marketable debt and, thereby, secondary-market investor options and activity, is therefore of great interest to all debt managers.

This report considers specific debt-management practices that may be associated with more marketable debt. Firstly, it asks whether primary-dealer (PD) systems and certain auction practices are related to more marketable debt. Secondly, it asks whether governments can benefit from developing stronger relationships with national or regional stock exchanges. Stock exchanges may help to publicise information about government debt, increasing awareness of and confidence in government debt.

Using data from the Collaborative Africa Budget Reform Initiative (CABRI) Africa Debt Monitor (ADM), this report suggests that using PD systems is associated with both lower interest rates on short-term debt and more of a country’s marketable debt being long term rather than short term (reducing refinancing risk and the potential for default). In addition, frequent and regular primary-market auctions are associated with more marketable debt. Finally, when government bonds are listed on national or regional stock exchanges, marketable debt substantially increases and much more of that marketable debt is long term.

This report illustrates each point in turn. The next section covers the benefits of PD systems and the interest rate as well as composition benefits of using PD systems. The third section considers the importance of frequent and predictable auctions. The fourth section shows the benefits of having stock exchanges list government debt. The final section draws some conclusions.

# 2. PRIMARY-DEALER SYSTEM BENEFITS

PD systems are arrangements between financial institutions and government authorities that issue domestic debt. The arrangements oblige financial institutions (typically banks) to participate in government debt markets at some minimum level and at regular intervals. This helps a government to ensure stable demand for its domestic-currency denominated debt. In return, financial institutions gain special privileges in that primary debt market, such as being one of a select few financial institutions with the right to participate directly in auctions.

Beyond these immediate benefits for governments and PDs, PD systems assist primary-market development in numerous ways. PD systems increase information-sharing, which makes price discovery for government debt instruments more efficient. More information, efficiency and instruments provide a basis on which the primary government debt market can deepen, and this should help to reduce government borrowing costs over time (World Bank 2010; Arnone & Ugolini 2005).

Furthermore, such benefits mean that PD systems can aid secondary-market development. PDs do this by serving 'as an intermediary between [government] and retail investors. In this regard, primary dealers are often expected to serve as partners with the [government] in developing the institutional and retail [secondary] markets' (Arnone & Ugolini 2005: 10). In practice, PDs operate initially in a tightly controlled primary market for government debt, and then make their holdings available to a variety of investors in a secondary market.

***PD systems increase information-sharing, which makes price discovery for government debt instruments more efficient***

Together, there is reason to expect that PD systems would lower borrowing costs and help to increase secondary-market activity. The CABRI ADM provides information with which to assess whether PD systems have these effects on government debt in Africa. Accordingly, this section shows that PD systems are associated with lower short-term rates and more long-term marketable debt.

ADM respondents were asked whether they had a PD system or not. Countries were coded according to their 'yes' or 'no' responses. Figure 1 indicates the relationship between the use of PD systems and the percentage of government debt in domestic rather than foreign currency. PD systems appear associated with significantly deeper primary domestic-currency debt markets. Specifically, countries with PD systems have half of their debt in domestic currency, while countries without PD systems only have less than one-third of their debt in domestic currency.

Figure 2 indicates the relationship between PD systems and maturities of marketable debt. Countries with PD systems have 25 per cent more long-term marketable debt than countries that do not have PD systems. In other words, PD systems provide grounds for more issuance of marketable long-term instruments.

Together, PD systems are related to substantial benefits in both primary and secondary domestic-currency debt markets. This makes sense insofar as PD systems imply a close relationship between a government and PDs (World Bank 2007; Arnone & Ugolini 2005). Meaningful information-sharing between debt issuer (the government) and buyer (PDs) should yield lower interest rates as price discovery and, thus, demand are clearer to the issuing authority. Such information-sharing between the government and PDs also makes longer-maturity instruments appealing to the buyer because PDs are more confident in the risks associated with various maturities.

**Figure 1: Domestic-currency debt % of total central government debt**

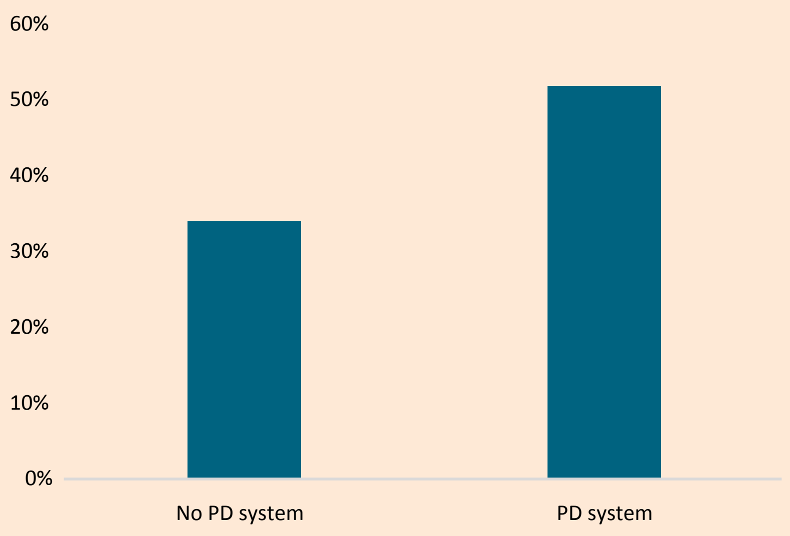
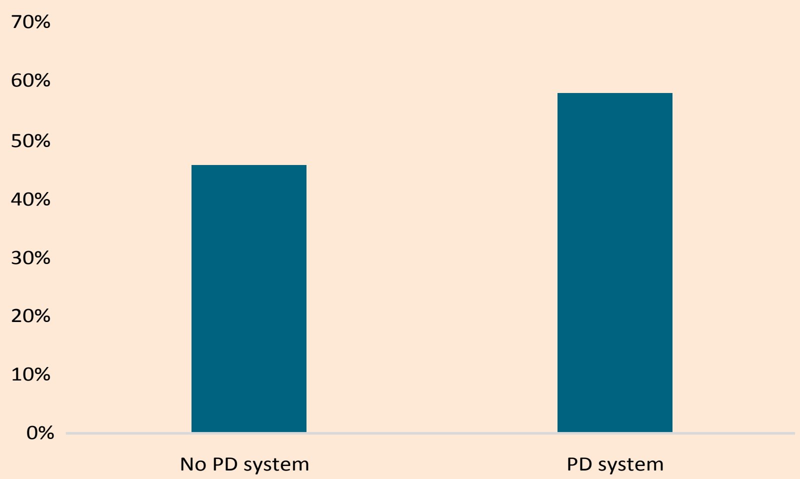



**Figure 2: Long term % of total domestic-currency marketable debt**



# 3. AUCTION FREQUENCY AND MARKETABLE DEBT

Regardless of exact format (Dutch, English or other), most governments use auctions to issue to their selected PDs in a closed-market context where a select few potential buyers bid for government debt. Governments can also offer subscriptions to PDs, although CABRI ADM responses indicate that all countries offering subscriptions also hold auctions. For example, Madagascar, Nigeria and Ghana indicate in the ADM that they offer subscriptions, but this is in addition to their primary use of auction processes.

The importance of frequent and predictable auction issuances is relatively clear. Of course, this depends on not issuing so much that auctions are undersubscribed, but ADM responses show that frequent issuances are beneficial for the percentage of marketable debt in the portfolio. This is because the more purchasing opportunities PDs have, the more confident they are that they will be able to manage their portfolios effectively. In addition to regularity, predictable government issuances are important for investor confidence and portfolio management.

Frequent and predictable government auctions should, by extension, help develop the secondary market. This is likely because, if PDs have confidence in the pace and regularity with which government plans to issue in a given year, they can more easily manage and forecast the effect of taking on marketable debt and selling it in the secondary market. In addition, as noted elsewhere, the transparency, planning and co-ordination implicit in frequent and predictable government bond auctions should generally increase secondary investor confidence in holding government debt (see CABRI 2019b).

***Frequent auctions increase the percentage of marketable debt in the portfolio by increasing investor confidence***

Indeed, the CABRI ADM provides material showing the effect of frequent and regular government auctions. Countries were asked how frequently they hold short- and long-term auctions. Using the short-term responses, countries were coded as issuing weekly, bi-weekly, monthly, quarterly or irregularly.

Countries that issue at least monthly also have at least 33 per cent more marketable debt than countries where auction schedules are irregular and vary. Figure 3 indicates the average percentage of domestic-currency debt that is marketable relative to the frequency of government securities auctions. Figure 3 also shows that countries issuing at least monthly have two times as much marketable debt as a share of total debt compared to countries that issue less frequently.

Table 1 shows the frequencies with which ADM-participant countries hold auctions of their domestic-currency debt. Importantly, the presence of small and large economies in each group, and, more specifically, countries with small and large amounts of debt, suggests that the advantage of frequent or regular issuance is not simply a matter of having sufficient financing needs or a large enough economy to justify frequent and regular issuing. In other words, regardless of amount, frequent and regular government bond auctions increase the quantity of marketable debt, relative to non-marketable debt, that a government can issue. It is preferable if governments 'gradually decrease the frequency of primary auctions as the market develops', because too-frequent primary issuances incentivise PDs to manage their portfolios in the primary market rather than through the secondary market (Arvai & Heenan 2008: 15). However, for most CABRI participants, market development is not substantial enough to prioritise this concern. The evidence presented here suggests benefits from regular and predictable primary-market activity, as it provides confidence to PDs and secondary-market investors alike.

**Figure 3: Short-term auction frequency and marketable % of domestic currency debt**

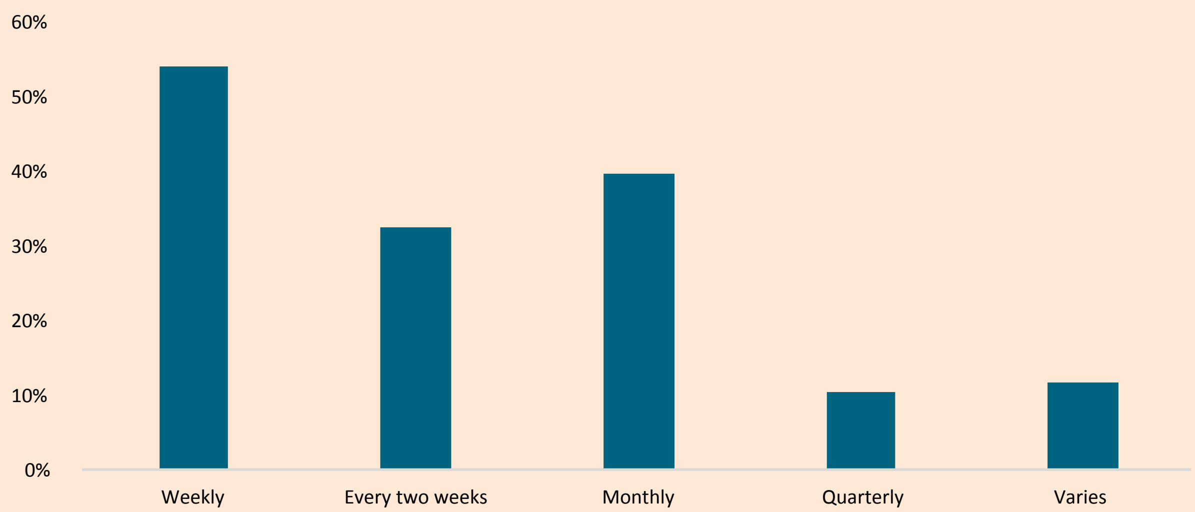



**Table 1: Government auction frequencies**

| Weekly | Every two weeks | Monthly | Quarterly | Varies |
|---|---|---|---|---|
| Cameroon | Madagascar | Burkina Faso | Botswana | Ghana |
| Eswatini | Seychelles | Nigeria | CAR | |
| Kenya | | | Côte d'Ivoire | |
| Malawi | | | Lesotho | |
| Mauritius | | | Liberia | |
| Namibia | | | | |
| Sierra Leone | | | | |
| South Africa | | | | |
| Tunisia | | | | |
| Uganda | | | | |

# 4. STOCK EXCHANGES AND MARKETABLE GOVERNMENT DEBT

In some emerging-market and developing economies, government debt-management offices use stock exchanges to increase secondary-market activity. This can happen directly and indirectly, as seen around the world. In Saudi Arabia, medium- and long-term government bonds are made directly available to the public via the Saudi Stock Exchange (Torchia 2018). In Hungary, government debt is issued to primary dealers in closed biweekly auctions, but are then listed on the Budapest Stock Exchange and trading can take place on that exchange. Although Hungary does not directly place bonds on the exchange, forcing post-auction availability of government debt on the stock exchange indirectly increases secondary-market activity by providing access to investors on top of over-the-counter availability at primary dealers (Hungarian State Treasury 2018).

These governments note a few key benefits from public debt availability on large national stock exchanges. The Hungarian debt management office (DMO) observes that the stock exchange has become ‘the sole medium of price quotations made by primary dealers’, helping concentrate information and improving the efficiency of price discovery (Hungary Government Debt Management Agency 2019). Saudi government ministers and bond market officials note the transparency and availability benefits of listing government bonds on stock exchanges, with the ultimate aim of ‘tapping new sources of demand’ for government debt (*The National* 2018).

***African governments listing government bonds, in one form or another, on their national stock exchanges have more marketable debt***

The CABRI ADM indicates that African governments listing government bonds, in one form or another, on their national or local stock exchanges have more marketable debt. This may at first seem somewhat obvious, as the presence of government bonds on stock exchanges inherently increases the amount of marketable debt issued by a government. However, it is important to highlight that this is a significant potential tool for expanding the secondary market, increasing information and availability.

The CABRI ADM asks: ‘Are government bonds listed on the stock exchange?’ While two respondents do not have national or regional stock exchanges, the rest of CABRI ADM respondents do. Of those countries that have stock exchanges, Table 2 indicates which do and do not list their bonds on those stock exchanges.

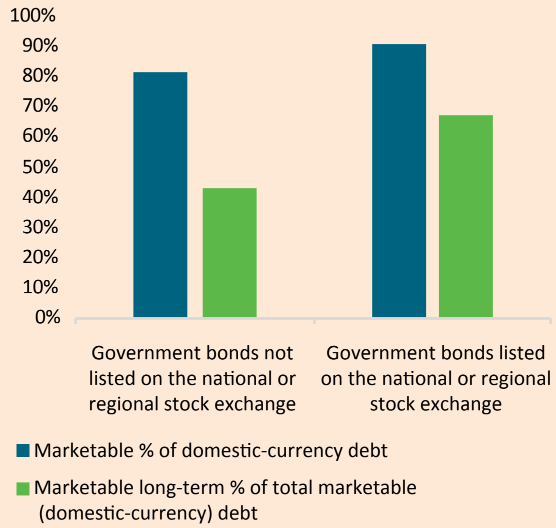
Predictably, the listing of government bonds on stock exchanges is associated with a larger amount of marketable government debt. Figure 4 shows the nearly 10 percentage-point gap between marketable debt and non-marketable debt, depending on whether government bonds are listed on the national stock exchange (right of figure) or not (left of figure) (see blue bars). It also shows that of that marketable debt, having bonds listed on the stock exchange is associated with more than 50 per cent more long-term marketable debt than countries that do not have their bonds listed on a national or regional stock exchange.

**Table 2: Are government bonds listed on the national or regional stock exchange?**

| No | Yes |
|---|---|
| Botswana | Cameroon |
| Burkina Faso | Côte d'Ivoire |
| CAR | Eswatini |
| Lesotho | Ghana |
| Liberia* | Kenya |
| Madagascar* | Malawi |
| Mauritius | Namibia |
| Seychelles | Nigeria |
| Sierra Leone | South Africa |
| | Tunisia |
| | Uganda |

** Indicates country does not have a national or regional stock exchange (ADM Question 3.4.1.1)*

**Figure 4: Listing government debt on the the national or regional stock exchange and marketable debt**




Notably, the CABRI ADM also indicates there is room across respondents for further coordination between DMOs and stock exchanges. Countries were asked: 'How often do the DMO and the national stock exchange meet?' Answers vary considerably, with all but three countries indicating that the DMO meets with the stock exchange only when necessary or not at all. Given the benefits seen elsewhere in the world when DMOs co-ordinate with and regularly use national stock exchanges, this is probably an area in which ADM respondents can improve debt management practices.

**Table 3: How often do DMO and stock exchange meet?**

| Regularly (weekly or semi-annually) | Irregularly (*ad hoc*) | Never/Unclear |
|---|---|---|
| Cameroon | Côte d'Ivoire | Botswana |
| Ghana | Kenya | Burkina Faso |
| Malawi | Mauritius | Central African Republic |
| South Africa | Namibia | Eswatini |
| | Nigeria | Lesotho |
| | Seychelles | Sierra Leone |
| | | Tunisia |
| | | Uganda |

# 5. CONCLUSION

This report highlights issuance structures related to more marketable government debt. The patterns are drawn from the ADM, building on academic literature, policy literature and other CABRI research. Three points of crucial importance for debt managers' pursuing local-market development are made.

Firstly, PD systems present numerous benefits. Beyond subscription options and *ad hoc* issuances, PD systems allow for substantial co-ordination between primary-market players and the government. Just as information-sharing and co-ordination have been found to help in other components of debt management (CABRI 2019a, b), they are necessarily part of any functioning PD system and yield similar benefits. Here, we find a greater portion of domestic-currency debt in the total debt portfolio and more of the marketable debt being long term when countries use PD systems. This is in addition to the more fundamental PD system benefit of ensuring primary-market participation.

***PD systems allow for substantial co-ordination between primary-market players and the government***

Secondly, and relatedly, countries with regular auctions held at least monthly issue three-to-five times the marketable debt of countries that issue less frequently or irregularly. In other words, predictable and relatively frequent auctions provide a framework for issuing substantially more marketable debt. The likely reasons for this are covered in Section 3 above. While demand for government debt depends on a variety of factors, the variance in size of economy and debt across the countries represented by the ADM suggests that even governments that issue less debt overall can benefit still from issuing that smaller amount of debt in even smaller but more frequent issuances. Regardless of size, regularity and predictability is helpful in comparison to strictly *ad hoc* or variable issuance intervals.

Thirdly, governments that have relationships with stock exchanges tend to issue more marketable debt. This report only considers the question of whether government bonds are listed on the exchange. Co-ordination between the government and the stock exchange, at least with the aim of simply listing government debt, is relatively straightforward. Again, building on the themes of maximising transparency and information-sharing across primary and secondary markets, this finding fits into the broader literature. It also suggests a relatively simple way for governments to increase secondary-market activity and, thus, financial sustainability.

# REFERENCES


Arnone M & Ugolini & (2005) *Primary dealers in government securities*. Washington DC: International Monetary Fund.

Arvai Z & Heenan G (2008) *A framework for developing secondary markets for government securities*. IMF Working Paper WP/08/174. International Monetary Fund.

CABRI (2019a) *Three Cs for DMOs: Co-ordination, consistency and clarity*. Pretoria, South Africa: CABRI.

CABRI (2019b) *More debt reporting, more marketable debt*. Pretoria, South Africa: CABRI.

Hungarian State Treasury (2018) Offering circular: On the public issuance of Hungarian government bonds. Available at: http://www.akk.hu/uploads/NnLqVE79.pdf [accessed 08.08.19].

Hungary Government Debt Management Agency (2019) Press material on the primary-dealer system and the Hungarian government securities online. Available at: http://www.akk.hu/en/page/releases/releases-1/press-releases/press-material-on-the-primary-dealer-system-the-hungarian-government-securities-online [accessed 08.08.19].

The National (2018) Saudi Arabia to list more than 200bn riyals in government bonds and sukuk on Tadawul. The National, April 2, 2018. Available at: https://www.thenational.ae/business/saudi-arabia-to-list-more-than-200bn-riyals-in-government-bonds-and-sukuk-on-tadawul-1.718015 [accessed 08.08.19].

Torchia A (2018) Saudi regulator approves exchange listing of domestic government bonds. Reuters, April 1, 2018. Available at: https://www.reuters.com/article/saudi-bonds-exchange/saudi-regulator-approves-exchange-listing-of-domestic-government-bonds-idUSL5N1RE0DG [accessed 08.08.19].

World Bank (2007) *Developing the domestic government bond market: From diagnostics to reform implementation. Washington DC: World Bank.*

World Bank (2010) Primary dealer systems: Draft background note. Washington DC: World Bank.

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