# SECONDARY TRADING OF GOVERNMENT SECURITIES ON THE EXCHANGE

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**Research and Market Development Department, Capital Markets Authority, Uganda**

## 1. Introduction

The Government of Uganda, using the Bank of Uganda (BoU) as an agent, issues government securities to fund part of the budget deficit. There are two types of securities that the government issues:

- Treasury Bills (T-bills)
  T-Bills are short-term government instruments with a maturity of less than one year with maturities of 91 days, 182 days and 364 days issued in Uganda.

- Treasury Bonds (T-bonds)
  T-bonds are long-term government securities issued with maturities greater than 1 year with maturities of 2 years, 3 years, 5 years, 10 years and 15 years issued in Uganda.

Government securities are particularly suitable for retail investors as they are considered to carry the least risk relative to other assets. Government securities are credit-risk free since the government could raise taxes or print money to pay off the debt. However, inflation, interest risk and for foreign investors foreign exchange risk remain. Furthermore, retail investors have the choice of maturities between 3 months and 15 years, allowing retail investors to align their investment horizon with their life-needs and even if there are sudden changes in their life, government securities can easily be sold at any time. This makes government securities an ideal investment for retail investors, but unfortunately, retail uptake of government securities in Uganda has remained low.

Government securities are issued by the government in the primary market through competitive auctions, meaning that the interest rates are market determined. Retail investors can participate in the auctions through their commercial bank, however many are unaware of this possibility as banks have a conflict of interest in promoting government securities to their retail clients as the banks make bigger returns by selling their own saving products.

Commercial banks act as primary dealers, obliging them to make a secondary market for government securities and buy and sell securities from their clients as and when they wish to sell or buy. However, primary dealers currently do not have enough incentives to do so, therefore the secondary market remains illiquid and retail investors who usually trade in small sizes are often forced to sell or buy at prices far away from the actual price. With this retail investors are significantly disadvantaged in the government securities market which means that their participation has remained low.

**Table 1: Quarterly Holding of Government Securities at Cost**

| | June 2017 | Sep 2017 | Dec 2017 | March 2018 | June 2018 |
|---|---|---|---|---|---|
| **Holder Category** | **Percentage** | **Percentage** | **Percentage** | **Percentage** | **Percentage** |
| Banks | 41.81 | 43.01 | 43.91 | 40.75 | 41.40 |
| Pension and Provident Fund | 40.81 | 41.20 | 41.16 | 42.85 | 41.67 |
| Offshore | 9.47 | 7.78 | 6.17 | 7.94 | 7.01 |
| Bank of Uganda | 0.16 | 0.16 | 1.54 | 0.00 | 0.00 |
| Insurance companies | 1.99 | 1.49 | 1.48 | 2.03 | 2.20 |
| Other financial institutions | 3.78 | 4.44 | 3.38 | 4.08 | 4.76 |
| Retail | 1.29 | 1.37 | 1.35 | 1.30 | 1.53 |
| Others | 0.69 | 0.56 | 0.52 | 1.05 | 1.43 |
| **Total stock** | **100** | **100** | **100** | **100** | **100** |

*Source: Bank of Uganda*

The level of diversification in the Uganda government securities market is low as shown in *Table 1*. The government securities market is dominated by banks and pension funds which combined held 83.07% of government securities as at end June 2018. Within this NSSF is the largest holder of government securities. At the same time, the holdings of foreign investors, insurance companies and retail investors are low, with a combined share of only 10.74% as at end June 2018. Retail investors, which are the main focus of this paper, only held 1.53% at the end of June 2018, a share that has only grown marginally over the years.

Other countries have faced similar problems and this paper will explain the ways how secondary market trading is conducted in other jurisdictions to address these problems.

## 2. Advantages of Increasing Retail Investor Participation in Government Securities

Countries are resorting to developing a diversified investor base for government securities as a way of ensuring high liquidity and stable demand in the market.[1] The benefits of developing a liquid government bond market go beyond financing government deficits at lower costs. A mature and liquid government securities market can improve resource allocation by effectively channeling both local and foreign savings into domestic investments and can diversify the investment channels for both retail and institutional investors.[2]

Catering to the needs of retail investors is often an essential part of the overall strategy to develop a more diversified investor base for government securities. Retail investors contribute a stable demand for government securities, which, in times of volatility, can cushion the impact of sales from banks, institutional and foreign investors.[3] Similar groups of investors base their investment decisions on similar factors. Therefore, if the investor base is not diversified, the majority of investors might want to sell (or buy) government securities at the same time with few investors willing to take the other side. This leads to significant price volatility and reduces liquidity.

Creating a heterogeneous investor base with different time horizons, risk preferences, and trading motives would ensure active trading, creating high liquidity in the government securities market in Uganda. Furthermore, even liquid markets can become illiquid in periods where one group of investors leaves or enters the market over a short period and where there are no counterbalancing order flows from other investor groups.[4] Therefore, it is important to have a diversified investor base, which can counter these outflows.

A liquid government securities market would also facilitate the pricing of other and riskier financial assets such as corporate bonds in the Uganda's capital markets. Corporate bonds are benchmarked against a government security and a risk premium added to compensate investors for the extra risk they have to bear. More retail investment in government securities would also increase the interest of retail investors in other capital market products, which in turn leads to the development of the capital markets. A deep and liquid government securities market may also help to absorb growing demand for long-term savings from the public which otherwise may be directed towards alternative assets like real estate, resulting in asset inflation leading to potential market instability.[5]

Therefore, it is important for Uganda to diversify the currently narrow investor base. Attracting retail investors is one of the ways to do so which is what this paper concentrates on.

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[1] M. S. Mohanty. *Improving Liquidity in Government Bond Markets: What can be done?*
[2] Lazarus Kamanga. (2010). *Developing a Liquid Government Bond Market*
[3] World Bank Group. (2001) *Developing Government Bond Market – A handbook*
[4] World Bank Group. (2001) *Developing Government Bond Market – A handbook*
[5] Lazarus Kamanga. (2010). *Developing a Liquid Government Bond Market*

## 3 Secondary Trading of Government Securities in different Jurisdictions

Different jurisdictions have adopted different mechanism of trading government securities. In this section, we review the secondary trading of government securities in Kenya, Nigeria, Singapore and Tanzania. The aforementioned countries have adopted a hybrid method of trading government securities that involves the secondary trading of government securities Over-The-Counter (OTC) and on the stock exchange.

### 3.1 Kenya

A hybrid model that involves trading of government securities on both the Nairobi Securities Exchange (NSE) and OTC was adopted in 2009. In 2009, the Central Bank of Kenya (CBK) facilitated the setting-up of a functioning Automated Bonds Trading and Settlement System (ATS). The ATS linkage between the NSE and the CBK enabled simultaneous exchange of securities and cash settlement using the Kenya Electronic Payments and Settlement System (KEPSS) infrastructure on a delivery versus payment (DvP) basis, ensuring efficiency of trading in terms of safety of transactions and price discovery. This development enhanced bond market confidence, increased transparency and stirred vibrancy at the bourse, which was a major milestone for the general growth of the Kenyan bond market.[6]

Government securities are sold to all investors in the primary market through the CBK as an agent of the National Treasury. T – Bills are classified as money market instruments and therefore only trade OTC under the oversight of CBK. T – Bonds are listed on the NSE and when traded on the NSE fall under the purview of the Capital Markets Authority (CMA), but government securities trade OTC under the purview of the CBK. The CMA Act, rules and regulations govern the listing and trading of capital markets instruments, including government of Kenya T – Bonds.[7] Since the commencement of secondary trading on the NSE, an increase in trading activity on the NSE has been recorded, which has contributed to the objective of secondary market development.[8]

The CBK and CMA developed operational procedures and guidelines governing the automated secondary trading for government of Kenya T – Bonds. The guidelines set out Trading and Settlement Procedures for T- Bonds, automating trading at the NSE Fixed Income Securities Board (FISB) segment.

Under the automated trading arrangement for T – Bonds, there is an electronic system inter-link connecting and allowing data interchange between the CBK Central Depository System (CDS) Registry and the NSE ATS platform. As the registrar of government domestic debt, all deliveries of securities take place at the CBK. Settlement for all sales and transfer of government securities take place at the CBK under a Delivery versus Payments (DVP) arrangement. Data is held in the CDS accounts at CBK for identified trades and as instructed by investors, is shared with the NSE

[6] https://www.bis.org/publ/bppdf/bispap76g.pdf

[7] Central Bank of Kenya. *Operational Procedures and Guidelines for Automated Secondary Trading for Government of Kenya Treasury Bonds*

[8] https://www.bis.org/publ/bppdf/bispap76g.pdf

and appointed stockbrokers, who can access the data on their holdings and that of their clients, and uploaded through a facility referred to as the Trading Book (TB), into the ATS to facilitate the placement and matching of orders by brokers at the NSE.

All prospective investors both wishing to buy or sell T – Bonds on the NSE are required to register their CDS account details and names of their stockbroker who will act as their agents with CBK. A registration/deregistration form is completed as a one-off process and thereafter the investor's details are availed to their broker at the start of every day. Buyers and sellers are required to comply with the Capital Markets (Licensing Requirements and General) Regulations on placement of orders and payment of commissions to brokers.[9] In a move to improve liquidity and deepen the market, CMA started licensing banks to trade in government securities on the NSE.

All CMA licensed stock brokers are allowed to trade government securities on the NSE. However, the stock brokers act more like middlemen. An investor using a broker gives the broker written sell instructions and fills a CBK sale form. The broker then sends the sale form to CBK for verification, which is done manually. Upon verification, CBK books the securities and loads the securities details to the Trading Book. Trading Book details are automatically availed to the ATS. The broker places the sale order in ATS on sighting the securities.

This process makes the trading of government securities through a broker cumbersome which causes unnecessary delays and may discourages investors. The Kenyan system is therefore not a model that Uganda adopt because it may not very efficient given that the brokers use a manual system to send trade orders to CBK.

However, the process is different for commercial banks that have a more direct access. The bank simply sends a SWIFT message to CBK with details of the security intended for sale and simultaneously instructs its broker in writing of the details of the sale order. CDS verifies the instructions and book the securities identified for sale, and then loads the details to the Trading Book. Trading book details are automatically availed to the NSE's ATS.

[9] Central Bank of Kenya. *Operational Procedures and Guidelines for Automated Secondary Trading for Government of Kenya Treasury Bonds*

## 3.2 Nigeria

Federal Government of Nigeria (FGN) Bonds are issued by the Debt Management Office (DMO) for and on behalf of the Federal Government of Nigeria through the Central Bank of Nigeria (CBN).

Just like Kenya, Nigeria also uses a hybrid system for the trading of government securities in the secondary market. Trading of FGN bonds in the secondary market can be either on the Nigeria Stock Exchange (NSE) or OTC on the Financial Markets Dealers Association for Quotations (FMDQ).

Registered by the Securities and Exchange Commission (SEC), as an OTC trading platform in 2012, FMDQ is a trading platform and a self-regulatory organization (SRO), bringing together Nigeria's fixed income and currency operations under a single market governance structure. The OTC platform, owned by the banks and the NSE, is connected to the Bloomberg e-bonds platform[10] and purely targets institutional investors.[11] The OTC platform handles clearing and settlements through a specially created facility at the central bank, rather than through the existing Central Securities Clearing System (CSCS) used by the NSE. The OTC platform was established to improve liquidity, transparency and safety of transactions in the interbank market for fund intermediation, foreign exchange dealings, repurchase transaction and government securities.[12] While the OTC market has the capacity to handle a wide range of instruments such as T – Bills, foreign exchange, bonds and derivatives, trading has been dominated by FGN bonds, T-Bills and foreign exchange. [13] The trading platform has significantly increased price discovery and liquidity in the market, making it attractive to institutional and foreign investors which has led to a more diversified market.

However, the OTC trading platform is not suitable for retail investors, which can access government securities through the exchange, similar to Kenya, Singapore and Tanzania. This separation in market access channels is necessary as institutional and retail investors have different needs and preferences.

All bonds listed on the NSE use the Central Securities Clearing System (CSCS) as the depository.[14] CBN acts as both the registrar and agent bank for the issuance of FGNs. In 2016, the SEC and CBN issued guidelines on securities settlement in Nigeria. The guidelines cover the settlement

[10] Bloomberg e-bonds platform is a robust trading platform for cash bonds, IRS, CDS, Repos, ETFs, listed options and FX derivatives

[11] https://oxfordbusinessgroup.com/analysis/over-counter-trading-and-alternative-exchanges-offer-opportunities-liquidity-growth-nigeria

[12] https://oxfordbusinessgroup.com/analysis/over-counter-trading-and-alternative-exchanges-offer-opportunities-liquidity-growth-nigeria

[13] https://oxfordbusinessgroup.com/analysis/over-counter-trading-and-alternative-exchanges-offer-opportunities-liquidity-growth-nigeria

[14] Nigeria Stock Exchange. (2012) *Operational Guidelines for Fixed Income Market Makers*

procedures and settlement cycle for trades executed on: the stock exchange, OTC markets and commodity exchanges.

## 3.3 Singapore

Singapore Government Securities (SGS) are issued by the government of Singapore through the Monetary Authority of Singapore (MAS) to primary dealers and authorized market participants via competitive auctions.

Singapore also uses a hybrid system where the secondary trading of all SGS, except T-Bills, are tradable on the Singapore Exchange Ltd (SGX), aimed at retail investors, while the trading of SGS among institutional investors in the secondary market remains Over-The-Counter (OTC). SGX commenced the listing and trading of SGS in 2012, initially selecting 19 SGS issues with maturities of at least 2 years.[15] There are no listing requirements for SGS since it is issued by the government.[16]

As money market instruments, T – Bills in both Kenya and Singapore are restricted to trading OTC under the oversight of the central bank, while T – Bonds can be traded on a stock exchange under the regulatory oversight of a capital markets regulator or OTC under the oversight of the central bank with close coordination between the regulators to ensure a fluent market.

Banks, merchant banks and stock brokerage firms are among the approved secondary dealers and participants of the SGS market. These entities buy from, or sell to clients SGS, whether as a principal or agent. This came on the back of efforts made to enhance retail investors' access to SGS bonds.[17] With the enhancement made to facilitate trading on the SGX, retail investors can now trade through brokers in the secondary market in a manner similar to the way stocks are traded. This provides greater price transparency, as they are able to access SGS bond prices on the SGX website or through their brokers. Liquidity providers provide two-way prices for SGS bonds traded on the SGX.

MAS oversees the Central Depository Pte. (CDP) and manages the clearing and settlement system for SGS. The CDP operates the clearing and settlement system for securities traded on the Singapore Exchange Securities Trading (SGX-ST) and corporate debt securities. SGS are settled via the MAS Electronic Payment System (MEPS+), which is a Real Time Gross Settlement System (RTGS) for inter-bank payments. Institutional investors or financial institutions without MEPS+ accounts must open a SGS trading account with either a primary or a secondary dealer.

[15] ASEAN+3 Bond Market Guide – Volume 1, Part 2
[16] Singapore Exchange Rule Book
[17] Singapore Bond Market Guide – Monetary Authority of Singapore

## 3.4 Tanzania

In Tanzania, the Bank of Tanzania (BoT) as a banker and agent of the government issues T – Bonds on behalf of the government at auctions.

While T – Bills are only traded OTC in the secondary market under purview of the BoT, T – Bonds are listed on the Dar es Salaam Stock Exchange (DSE).[18] Investors wishing to buy or sell T – Bonds approach the DSE through registered broker-dealers in order to obtain details pertaining to trading procedures.[19] The broker – dealers are individuals or organizations licensed by the Capital Markets and Securities Authority (CMSA) to trade on their own account and on behalf of clients.

While clearing and settlement of corporate bonds and equities is through the Central Securities Depository (CSD), transfer of T – Bonds traded in the secondary market is affected in the Book Entry System.[20] DSE provides the BoT with all trading details whenever a trade in government securities takes place. To effect transfers of T – Bonds, investors, through their Central Depository Participant (CDP) fill in a securities transfer CDS form. The duly completed transfer forms, endorsed by DSE through broker dealers, are submitted to CDPs, who then submit the form to BoT to update the Central Depository System (CDS), with respect to the existing and new holders of the bonds. This is a manual and very ineffective way to settle the secondary market trades that occur on the DSE.

The CDS is regulated by the BoT under the BoT Central Depository Systems rules. The rules were established in compliance with the provisions of the Government Loans, Guarantees and Grants Act, Capital Markets and Securities Act, Government Securities Regulations and the BoT Act.[21] Settlement in the secondary market is carried based on the transfer forms from seller and buyer Central Depository participants received by the bank.

# 4 Lessons for Uganda

Kenya, Singapore, Nigeria and Tanzania all use a hybrid system for the secondary market trading of government securities, allowing institutional investors to trade OTC and retail investors to access government securities through the securities exchange. This model allows retail investors significantly easier access to government securities as the OTC market is not suitable for them, both because of its complexities as well as because of the banks' lack of incentives to sell government securities to their retail clients. As Uganda aims to attract more retail investors to invest in government securities, such a hybrid model would be a good fit for Uganda.

Nigeria and Singapore use an automated trading system where the central securities depository for government securities is automatically updated when a trade happens on the exchange. This

[18] https://www.bot.go.tz/financialmarkets/FinMarketsInTanzania.asp
[19] Bank of Tanzania. (2015). *Guidelines for Participation in Primary and Secondary Markets for Treasury Bonds*
[20] Bank of Tanzania. (2015). *Guidelines for Participation in Primary and Secondary Markets for Treasury Bonds*
[21] Bank of Tanzania. (2015). *Bank of Tanzania Central Depository System Rules.*

is not the case for Tanzania, which uses a manual system where investors have to fill in security transfer forms for the central bank to update the central securities depository.

The use of an automated trading system that links the central securities depositories at the USE and the BoU would increase transparency and retail investor confidence in the market. Uganda is already a step in the right direction, because government securities are already listed on the USE, but trading does not take place, because the central securities depositories are not linked. The trades on the USE would therefore not automatically be reflected on the CSD. The CSD could be updated manually as in Tanzania's case, however this is too ineffective and hence no trading takes place.

Furthermore, the hybrid system allows stockbrokers to sell government securities to retail investors. In Uganda, the banks have no incentive to sell to retail investors as banks prefer to sell their deposit products to them. Since retail investors usually trade in small sizes, they are often forced to sell or buy at prices far from the actual price. Stockbrokers are therefore better placed to buy and sell securities for retail investors who have been disadvantaged in the secondary market of government securities.

While Uganda is also looking into creating an OTC platform similar to Nigeria, such a platform is not suitable for retail investors. Nigeria for example has both an OTC platform and allows government securities to be traded on the exchange as the different trading channels cater to different investor preferences. Therefore, the decision to allow government securities to be traded on the exchange should not be seen as being in competition to the introduction an OTC trading platform, but as a supplement.

In Uganda, all commercial banks are currently primary dealers. To further widen the reach to retail investors and create enough liquidity on the exchange for government securities, primary dealers should be encouraged to apply for secondary dealer licenses by the CMA, similar to Singapore's system.

Only T-Bonds are listed on the exchanges in Kenya, Tanzania and Singapore. The amounts outstanding for T-Bills are small which would mean that the liquidity of T-Bills would be extremely low on the exchange in Uganda. However, linking the central securities depositories would automatically make T-Bills also tradable on the exchange as T-Bills are already listed on the exchange. Therefore, there is little reason to reason to restrict the trading of T-Bills on the exchange.

## 5 Recommendations

In order to increase retail investor participation in government securities and create easier access for them to the market, a hybrid secondary marking trading system should be adopted in Uganda. The system should be similar to the ones in Kenya, Nigeria and Singapore which have an automated system in place. In order to achieve this the following actions need to be implemented.

**Table 2: Actions to Implement a Hybrid Secondary Market Trading System**

| Area | Recommendation |
|---|---|
| Clearing and settlement | In order to allow the trading of government securities, the depositories at the USE and the BoU should be linked. |
| Guidelines | BoU, CMA, USE and MoFPED should develop operational procedures and guidelines governing the secondary trading of government securities on the exchange. The Public Finance Management Act, the BoU Act and the CMA Act should govern these guidelines.<br><br>The guidelines should set out the trading and settlement procedures for government securities, exchange trading rules, and the role of the CMA, BoU, USE, the Debt Management Office, dealers, stockbrokers and the registrar. |
| Licensees | All licensed stock brokers should be allowed to trade government securities on the exchange. CMA should license banks to trade government securities on the exchange, however the inspections etc should be conducted jointly between the BoU and the CMA. |