

UGANDA GOVERNMENT SECURITIES OPERATIONS

1. GENERAL GUIDELINES

Government of Uganda borrows funds from the public. BOU is an Agent of Government to collect money (since 1969). The public/lenders place funds with government through their CSD accounts opened at BOU. The following are the instruments auctioned and used for fiscal purposes (prior to July 2012, these instruments were exclusively used for monetary policy implementation purposes).

Treasury bills - structured in three maturities, i.e. 91 days, 182 days, and 364 days. Treasury bills are referred to as short-term instruments (securities). These securities are issued at a discount and currently they account for less than half of total outstanding securities, i.e. government securities that are yet to mature.

Treasury bonds - these are new instruments on our market and compared to the Treasury bills, they are long-term securities in maturities of 2, 3, 5, 10 and 15 years. Treasury bonds were introduced mainly to extend the yield curve and to mitigate the cost of sterilization. The legal basis for issuing securities: *Treasury Bill Act 1969*, and *Public Finance and Accountability Act 2003*.

1a WHO CAN INVEST IN GOVERNMENT SECURITIES?

- Commercial banks
- Insurance companies
- Individual companies
- Government agencies
- Pension funds
- Individuals (of at least 18 years of age)
- Offshore investors (individual persons and corporate entities)--through a local agent i.e., a commercial bank registered and licensed in Uganda

1b ADVANTAGES OF INVESTING IN UGANDA GOVERNMENT SECURITIES

- They offer a competitive rate of return
- They are risk-free instruments
- Saving mechanism
- They are very liquid; can easily be sold in the secondary market
- They can be pledged as collateral for borrowing

1c INVESTMENT PROCEDURES-- SUMMARY

All investors wishing to participate in the treasury bills/bonds transactions must be registered on the CSD (Central Securities Depository System). An investor registers by filling one *CSD Account Opening Form* (available on the BOU website). The form is delivered to a commercial bank that opens up the CSD account on behalf of BOU.

Only registered participants are eligible to submit bids in auctions. There are two categories of investors or bids during auctions:

- i. Competitive investors – investors whose bids exceed 200 million shillings
- ii. Non-competitive investors – investors whose bids range from Shs. 100,000= to 200 million shillings.

All bids, competitive and non-competitive, must be submitted through a commercial bank.

Bids are captured on the Central Securities Depository System (CSD) by Commercial banks for themselves and for their clients.

The auction is carried out at the Bank of Uganda on et auction day (usually Wednesday at 10am); there is no need for presence of any investor to witness the auction.

Settlement – Bank of Uganda applies a T+1 settlement arrangement. All successful bids are settled by directly debiting the commercial bank accounts at the Central Bank for the value of the cost of the securities of the investments through a particular commercial bank. Securities are automatically created on the CSD after settlement through the RTGS at 12 o'clock on settlement day. Bank of Uganda issues electronic securities and they are stored electronically.

Holidays - On Unscheduled holidays (this is a day which is not a Business Day and the market was not aware of such fact), settlement for auctions and redemptions will be extended to the

next business day. In the event that the settlement for auctions and redemptions is extended due to an unscheduled holiday, there will be no extra interest accrued. In the event that the settlement for auctions is extended due to an unscheduled holiday, the coupon payment and redemption dates will remain as specified in the Invitation to Tender.

1d PRE-AUCTION PROCEDURES

- i. The public is given a 7-days (14 days for bonds) notice of the Bank's intention to auction Treasury bills/bonds through one or two of the leading newspapers and via the BOU website as well as a email to the main market participants.
- ii. All bids must be submitted through Primary Dealers except for commercial bank bids

1d (a). GENERAL RULES

- i. The investor must be registered on the CSD
- ii. All bids must be delivered through a Primary Dealer bank
- iii. A bidder cannot place both competitive and non-competitive bids in a single tenure of a Government security
- iv. A maximum of four competitive bids is allowed for each tenure

1d(b) BID VOLUMES

- i. The minimum bid volume is Shs100, 000
- ii. Bids must be in multiples of Shs100, 000
- iii. Bank of Uganda has no limit to high volume bids (dominance by single investor)
- iv. Bid volumes ranging between Shs100,000 and Shs200,000,000 are classified as non-competitive
- v. Bid volumes of Shs200,100,000 or more are classified as competitive.

1d(c) BID PRICING

- i. Non-competitive bids are not priced
- ii. Competitive bids must be priced with prices expressed per Shs100 or in yields and correct to 3 decimal places

2. AUCTIONING PROCEDURES

2a AUCTION DAY

- i. Receiving bids into the CSD closes at 10am and auctioning starts immediately
- ii. After capture and verification of bids, non-competitive bids are awarded before competitive bids, which compete for the remaining volumes. Competitive bids are awarded ranking from the lowest to the highest yield until the offer volume is exhausted.
- iii. The awarding process will stop at the point where the offered volume is attained

2b REJECTION OF BIDS

Bank of Uganda reserves the right to reject any or all bids if it deems it necessary in the interest of maintaining stable rates in the financial market. Bids may also be rejected if:

- i. The auction rules stipulated above are breached
- ii. A bid is established to be an outlier
- iii. A bid is construed to be speculative

3. FAILURE TO SETTLE FOR SECURITIES

A bank is deemed to have failed to settle if by the time the RTGS settlement instructions are sent out there are no sufficient funds to settle the dealer's obligation arising out of the auction. In the current RTGS-CSD set-up, this would occur when there are insufficient funds on bank's account at around 12 o'clock on settlement day. Failure to settle is punishable by

- i. A mandatory default surcharge which is a number of percentage points of the payable amount (cost of security) and/or
- ii. Suspension of the defaulting bank from a number of future government securities auctions as the Bank of Uganda may determine.

4. WITHHOLDING TAX AND INTEREST RATE CALCULATIONS

4A Withholding tax (WHT) of 20% is charged on all interest earned on Treasury bills and bonds on all investors except those that are explicitly exempted by Uganda Revenue Authority and/or other regulatory authorities. Tax is withheld at coupon payments dates, at redemption and/or rediscounting of instruments and during secondary market transactions.

$$WHT = 20\% * Interest_Earned \quad (1a)$$

4B Interest Rates in Primary Auctions

(a) Treasury Bills

(i) Annualised Discount Rate

$$Annualised_Discount_Rate = (100 - P) * 365 / DTM \quad (1b)$$

(ii) Effective Yield

Effective Yield Formula:

$$Effective_Yield = 100 * [(100 / P)^{365 / DTM} - 1] \quad (2)$$

where P is any primary market price quoted by the bidder, DTM is ‘days to maturity’ or tenor (i.e. 91, 182 or 364 days). The price for Treasury bills is usually a discount price (and expressed in shillings per 100) i.e., less or equal to 100, e.g., 99.9999

(b) Treasury Bonds

Relationship between bond price and yield to maturity

Let P be the price of a bond in shillings per 100 of a bond;
 C be coupon payment (in shillings) per year (payment begins in period t = 1);
 Assume there are n coupon payments in the bond’s life;
 Let M be the maturity value of the bond.

Then the following formula is used to calculate yield to maturity (YTM) or price:

$$P = \sum_{t=1}^n \frac{C}{(1 + YTM)^t} + \frac{M}{(1 + YTM)^n} \quad (3)$$

In Uganda, coupon is paid semi-annually. Thus a 2-year 10% per annum coupon bond pays $5\% \times 100 = 5$ shillings per 100 per six-month period for a total of 4 coupon payments. In this case, the price –YTM relationship in formula (3) above translates into the following:

$$P = \sum_{t=1}^4 \frac{5}{(1 + \frac{YTM}{2})^t} + \frac{100}{(1 + \frac{YTM}{2})^4} \quad (4)$$

Weighted Average Price, WAP

How to determine the weighted average price (or WAP):

Let WAP denote the weighted average price derived from the Treasury bill auction's successful (awarded) competitive bids

F_r be the bid amount (or maturity value) for the r^{th} bid

P_r denote the price tendered for the r^{th} bid (expressed on a 100/- basis i.e. par value)

N be the total number of successful (awarded) competitive bids

The weighted average price- WAP - is defined as:

$$WAP = \frac{\sum_{r=1}^N F_r \times P_r}{\sum_{r=1}^N F_r} = \frac{F_1 \times P_1 + F_2 \times P_2 + \dots + F_N \times P_N}{\sum_{r=1}^N F_r} \quad (5)$$

The WAP formula in (5) is used in Treasury bills auctions in conjunction with formulae (1) and (2) to generate annualised discount rate at WAP and annualised effective rate at WAP, respectively. In Treasury bond auctions, WAP is used to generate YTM at WAP used in formula (3).

(c) How to compute proceeds from Secondary Market Sale:

Let M denote the maturity value of the affected CSD instrument account holdings

P_s denote the agreed secondary market price

Secondary market proceeds:

$$\text{Secondary_Market_Proceeds} = M \times \frac{P_s}{100} \quad (6)$$

Formula (6) applies to both T-Bills and T-Bond secondary market sales.

For additional information:

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