

## Negotiated Dealing System (NDS)

Till 2002, the Government securities market was mainly a telephone market. Buyers and sellers traded over telephone and submitted physical Subsidiary General Ledger (SGL) transfer forms for transfer of the Government securities and cheques for settlement of the funds to the Reserve Bank of India. These manual operations were inefficient and often resulted in delays. In order to improve efficiency in the market, the Reserve Bank of India took steps to automate the process of trading and settlement of Government securities transactions and the Negotiated Dealing System (NDS) was introduced in February 2002.

The Negotiated Dealing System (NDS) has two modules – one for the primary market and the other for the secondary market.

### I. Primary Market Module

The Reserve Bank uses the primary auction platform (NDS Auction) for auction of both, dated securities of the Government of India and the State Governments as also, treasury bills. This platform allows participants to electronically submit their bids in the primary auctions and receive allotment reports.

Main features of the auction platform are:

- a. *Creation of issues* - The Reserve Bank creates a security issue giving the details of the security, the total amount (notified amount) and bidding date and timings, etc.
- b. *Submission of bids* – Member participants can click on the issue number and electronically submit bids by specifying the amount and price/ yield at which they are willing to buy the securities.
- c. *Processing of bids* – The Reserve Bank processes the bids and arrives at the cut-off price/ yield depending on the format of the auction.
- d. *Allotment advice* – Once the cut-off price/ yield is decided, the Reserve Bank accepts all the bids above and up to this cut-off price/yield. The system automatically generates participant-wise reports of successful bids and electronically sends them to the participants.
- e. *Settlement* – The system generates a settlement report giving details of the amounts that each member has to pay and the quantity of securities to be issued to each participant. Based on this report, funds account of each member with the Reserve Bank is debited and securities account of each member with the Reserve Bank is credited. For constituent bids, accounts of their custodian banks/ Primary Dealers get operated the same way. Primary Dealers are financial institutions that deal in Government securities. Custodian is the bank or primary dealer that maintains the Government securities account of individuals and small entities.

## II. Secondary Market Module

Secondary market trading in Government securities can happen over-the-counter (OTC). These trades generally happen over phone. Players are required to report secondary market trades on the NDS. Once they complete the reporting process and the system accepts trades, the data automatically flows to the Clearing Corporation of India Ltd. (CCIL) for clearing and settlement (See box for CCIL). This avoids paper based settlement process. Paper based system required participants to exchange subsidiary general ledger (SGL) forms for transfer of securities and cheques for transfer of funds.

The details of the trades reported on NDS are disseminated through the RBI web site <http://www.rbi.org.in/Scripts/NdsUserXsl.aspx>

### **Clearing Corporation of India Limited**

Clearing Corporation of India Limited (CCIL) is a joint stock company with share capital contribution by major banks and financial institutions. CCIL is the clearing and settlement agency exclusively for the Government securities market. In Government securities market, CCIL guarantees settlement of all trades accepted by the system. This is done by way of novation. CCIL acts as the Central Counter Party (CCP) in all secondary market trades by way of novation. In novation, a trade between two parties, namely, 'A' and 'B' is broken into two trades - one trade between 'A' and the central counter party and another between 'B' and the central counter party. In both the cases, the central counter party is the CCIL. In other words, CCIL becomes seller to the buyer and buyer to the seller. The Reserve Bank regulates the CCIL under the Payment and Settlement Systems Act, 2007.

### **NDS-OM**

The Reserve Bank introduced the Negotiated Dealing System-Order Matching system or NDS-OM as it is called, in August 2005. The NDS-OM is an electronic, screen based, anonymous, order driven trading system for dealing in Government securities. The Reserve Bank owns NDS-OM and CCIL maintains it. The platform is in addition to the existing facility of over-the-counter (OTC) or phone market in Government securities.

The NDS-OM brings transparency in secondary market transactions in Government securities. Members can place bids (buy orders) and offers (sell orders) directly on the NDS-OM screen. Being order driven, the system matches all bids and offers on price/time priority, that is, within the orders of the same price, it matches the oldest order first. The system ensures complete anonymity among the participants as CCIL acts as the central counter party (CCP) for settlement of all the trades. The NDS-OM also facilitates straight-through-processing (STP), that is, all the trades on the system are automatically sent to the CCIL for settlement. With the efficiency and ease of its operations, the NDS-OM has today captured over 80 per cent of the trading volume in Government securities.

The trade details of NDS-OM are disseminated through the CCIL's website <http://www.ccilindia.com/OMHome.aspx>. Only authorised users of the member entities can log in to the system.

### **Participants**

There are two kinds of participants in NDS-OM – direct and indirect. Direct members have current and SGL accounts with the Reserve Bank and can directly settle their trades on NDS-OM. Indirect members are those players who do not have current and SGL accounts with the Reserve Bank and therefore have to trade on NDS-OM through members who have these accounts with the Reserve Bank.

All resident entities, including corporates but excluding individuals, can access NDS-OM, either directly or indirectly. Foreign institutional investors (FIIs) have been provided indirect access.

More specifically, currently banks, including state cooperative banks, primary dealers (PDs), insurance companies, mutual funds and larger provident funds have current and SGL accounts with the Reserve Bank and therefore can directly trade on NDS-OM.

Qualified entities, such as, non-banking finance companies (NBFCs), smaller provident funds, pension funds, cooperative banks, regional rural banks and trusts, corporates and FIIs do not have current and SGL accounts with the Reserve Bank and therefore can only indirectly, that is, through banks and PDs, trade on NDS-OM.

Banks and PDs provide custodial services to indirect members by opening their securities and funds accounts. Indirect members can place orders through their custodian using client accounts. Such trades would finally settle through the Constituent SGL (CSGL) account and current account of the custodian who is a direct member.

NDS-OM currently has direct membership from more than 130 financial institutions.

SGL (Subsidiary General Ledger) Account – It is the securities account that is maintained by banks and primary dealers with the RBI for holding their Government securities. Only their proprietary holdings are allowed to be held in the SGL account.

CSGL (Constituent SGL) Account – Banks and primary dealers are allowed to maintain securities accounts of their customers. The holdings of the customers are held in a pooled account in the RBI which is called CSGL account.

### **Who can be a member of NDS-OM?**

Following are the prerequisites of obtaining membership of the NDS-OM:

- SGL account with the Reserve Bank
- Current account with Reserve Bank\*
- INFINET (Indian Financial Network) connectivity
- Membership of CCIL

*\* Entities such as mutual funds and insurance companies, which are not eligible to open current account with the Reserve Bank, need to open a funds account with one of the Designated Settlement Banks (DSBs) appointed by CCIL for settlements.*

## Why trade on NDS-OM?

- NDS-OM ensures anonymity of participants and, therefore, ensures objective pricing in the market. Since players know each other in market, in OTC trade, players can face adverse pricing.
- The system provides information, both pre-trade (e.g., bids/offers) and post-trade (e.g., last traded price and volume) on real time basis. This assures transparency and better price discovery as against the OTC market where there could be a delay of up to 30 minutes in information dissemination.
- Trading happens in standardised lot size of Rs.5 crore and in multiples of Rs.5 crore providing enough liquidity in the system.
- To facilitate trading in small lot sizes of less than Rs.5 crore, a separate 'odd lot' segment (with the minimum trading lot size being only Rs.10,000) is also available.
- Participants get to know the depth of the market as the system shows the order depth in terms of number and total amount of sell/ buy orders for each security. This is not possible in OTC market.
- There is a high level of operational ease as the entire cycle of placing orders, trading and settlement of trades is fully automated.
- Once the trade is concluded on the system, it is treated as confirmed for settlement. In the OTC market, deals have to be confirmed on NDS and only then they are accepted for settlement.
- Reporting happens simultaneously with trades on NDS-OM; whereas in the OTC market participants need to report the transactions separately.

## Features of NDS-OM

While there are a host of features for operational ease and better security, the following are the major ones.

### (i) Market watch

Market watch is the first page of NDS-OM once the user logs in to the system. The page gives securitywise details, current state of the market by giving details like best bid, best offer, last traded price and yield and total traded amount on real time basis for each security.

Market watch is separately available for different segments of the market, viz., Central Government securities (CG), State Government securities (SG), Treasury bills (TB), Odd lot market (OD) and When Issued market (WI).

From the market watch page, the user can navigate and drill down to security level prices/ yields of the bids and offers available in the system. The 'orders by price' link gives ten best prices for a security on bid and offer side. It also shows the depth of the market by giving the total number and amount of bids and offers for each security. The market watch of NDS-OM is also available on CCIL's website at <http://www.ccilindia.com/OMHome.aspx>

RBI - NDS GILTS Order Matching Segment

Order Management Market Query Dealer Query Member Query Basic Data Query Messages Settings Help Log Off

54 06.35 GS 2020 90.7100 7.7077 (T) 15:29 00.00 GS 2022 100.1500 8.0603 (G) 14:39

CG SG IB OD WI (T) 13:47 08.27 MH SDL 2019 101.4400 8.0500 (T) 13:47 08.22 TN SDL 2019 101.1100 8.0498 (T)

State Government	Security	Maturity	Bid			Offer			Trade				
			Amount	Yield	Price	Price	Yield	Amount	LTP	LTY	LTA	TTA	
10.52 MZ SDL 10	25-Apr-10	5	4.0591	101.3325	-	-	-	-	-	-	-	-	-
12.00 MZ SDL 10	26-Sep-10	5	4.7721	104.4050	-	-	-	-	-	-	-	-	-
10.35 MZ SDL 11	08-May-11	5	5.5504	105.6775	-	-	-	-	-	-	-	-	-
08.05 KA SDL 2019	25-Nov-19	10	8.3041	98.3000	99.7500	8.0845	25	-	-	-	-	-	-
08.05 TN SDL 2019	25-Nov-19	10	8.3010	98.3200	99.7500	8.0845	25	-	-	-	-	-	-
08.34 MH SDL 2020	03-Feb-20	5	8.3007	100.2600	100.3500	8.2873	5	100.2600	8.3007	5 G	20	-	-
09.10 KA SDL 11	06-Nov-11	-	-	-	106.7500	4.9306	5	-	-	-	-	-	-
08.10 WB SDL 2019	25-Nov-19	5	8.3087	98.6000	100.1000	8.0821	5	-	-	-	-	-	-
08.33 GJ SDL 2020	06-Jan-20	5	8.2906	100.2500	100.6000	8.2383	5	-	-	-	-	-	-
08.40 AS SDL 2020	03-Feb-20	5	8.3845	100.1000	100.5300	8.3203	5	-	-	-	-	-	-
08.44 SK SDL 2020	03-Feb-20	5	8.3497	100.6000	101.7900	8.1737	5	100.8000	8.3200	5 T	5	-	-
08.39 UP SDL 2020	03-Feb-20	5	8.3596	100.2000	100.5300	8.3104	5	100.5000	8.3148	5 T	15	-	-
05.60 UP SDL 14	23-Apr-14	10	8.0787	91.3000	-	-	-	-	-	-	-	-	-
05.60 WB SDL 14	23-Apr-14	10	8.0787	91.3000	-	-	-	-	-	-	-	-	-
07.32 AP SDL 14	10-Dec-14	10	8.0779	97.0000	-	-	-	-	-	-	-	-	-
07.32 UP SDL 14	10-Dec-14	10	8.0779	97.0000	-	-	-	-	-	-	-	-	-
07.32 WB SDL 14	10-Dec-14	10	8.0779	97.0000	-	-	-	-	-	-	-	-	-
08.55 UP SDL 2017	14-Nov-17	5	8.2541	101.6500	102.1000	8.1755	5	-	-	-	-	-	-
08.35 MH SDL 2017	26-Mar-17	5	8.1966	100.8000	101.8500	8.0015	5	-	-	-	-	-	-

Messages

Notifications

- Orders Placed
- Orders Modified
- Orders on Hold
- Orders Released
- Orders Cancelled
- Orders Rejected
- Trades
- System Messages

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(ii) Placing orders (bids/offers)

Bids are placed by clicking on the 'place bid' icon on the screen or could be placed by double clicking the best offer on the market watch page. Similarly offer could be placed by double clicking the best bid available on the market watch page.

RBI - NDS GILTS Order Matching Segment

Order Management Market Query Dealer Query Member Query Basic Data Query Messages Settings Help Log Off

2011 107.1000 4.7360 (G) 15:31 09.39 GS 2011 105.5500 5.2047 (G) 14:39 11.50 GS

CG SG IB OD WI 9022010 3.2500 99.9199 (T) 12:12 091 DTB 09042010 3.5500 99.4391 (T) 14:53 091 DTB

State Government	Security	Maturity	Bid			Offer			Trade				
			Amount	Yield	Price	Price	Yield	Amount	LTP	LTY	LTA	TTA	
10.52 MZ SDL 10	25-Apr-10	5	4.0591	101.3325	-	-	-	-	-	-	-	-	-
12.00 MZ SDL 10	26-Sep-10	5	4.7721	104.4050	-	-	-	-	-	-	-	-	-
10.35 MZ SDL 11	08-May-11	5	5.5504	105.6775	-	-	-	-	-	-	-	-	-
08.05 KA SDL 2019	25-Nov-19	10	8.3041	98.3000	99.7500	8.0845	25	-	-	-	-	-	-
08.05 TN SDL 2019	25-Nov-19	10	8.3010	98.3200	99.7500	8.0845	25	-	-	-	-	-	-
08.34 MH SDL 2020	03-Feb-20	5	8.3007	100.2600	100.3500	8.2873	5	100.2600	8.3007	5 G	20	-	-
09.10 KA SDL 11	06-Nov-11	-	-	-	106.7500	4.9306	5	-	-	-	-	-	-
08.10 WB SDL 2019	25-Nov-19	5	8.3087	98.6000	100.1000	8.0821	5	-	-	-	-	-	-
08.33 GJ SDL 2020	06-Jan-20	5	8.2906	100.2500	100.6000	8.2383	5	-	-	-	-	-	-
08.40 AS SDL 2020	03-Feb-20	5	8.3845	100.1000	100.5300	8.3203	5	-	-	-	-	-	-
08.44 SK SDL 2020	03-Feb-20	5	8.3497	100.6000	101.7900	8.1737	5	100.8000	8.3200	5 T	5	-	-
08.39 UP SDL 2020	03-Feb-20	5	8.3596	100.2000	100.5300	8.3104	5	100.5000	8.3148	5 T	15	-	-
05.60 UP SDL 14	23-Apr-14	10	8.0787	91.3000	-	-	-	-	-	-	-	-	-
05.60 WB SDL 14	23-Apr-14	10	8.0787	91.3000	-	-	-	-	-	-	-	-	-
07.32 AP SDL 14	10-Dec-14	10	8.0779	97.0000	-	-	-	-	-	-	-	-	-
07.32 UP SDL 14	10-Dec-14	10	8.0779	97.0000	-	-	-	-	-	-	-	-	-
07.32 WB SDL 14	10-Dec-14	10	8.0779	97.0000	-	-	-	-	-	-	-	-	-
08.55 UP SDL 2017	14-Nov-17	5	8.2541	101.6500	102.1000	8.1755	5	-	-	-	-	-	-
08.35 MH SDL 2017	26-Mar-17	5	8.1966	100.8000	101.8500	8.0015	5	-	-	-	-	-	-

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- Orders Cancelled
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Bid

Security:  Amount(Rs Cr):  Price(Rs):

NORMAL Disclosed Amount(Rs Cr) DAY

GTT:  BID Constituent Name:

Yes No

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- While placing a bid or offer, one can choose to show the entire amount of bid/ offer being placed or show only a portion of the amount by selecting the 'DQ' (Disclosed Quantity).
- Further, orders could be placed in three time combinations, namely,
  - day** – which is valid for full trading day,
  - GTT** – 'Good till time' meaning the order will be valid till the specified time and
  - IOC** – 'Immediate or Cancel' meaning either it will be executed immediately or get cancelled if matching order is not available.

(iii) *Order confirmation*

Once the details of the order are filled in (see screen shot above) and submitted, details of the order are shown once again by the system (see screen shot below). Only after confirmation, the order gets placed in the system.

The screenshot displays the 'RBI - NDS Gilts Order Matching Segment' window. A central dialog box prompts the user to confirm bid details for a 10.52 MZORAM SDL 2010 order. The dialog includes the following information:

- Order Type:** Bid
- Order No.:** -
- Sub-Market:** Standard
- Security:** 10.52 MIZORAM SDL 2010
- Maturity:** 25 Apr 2010
- Settlement:** 10 Feb 2010
- Amount:** 5,000
- Price:** 101.3325
- Yield:** 4.0591
- Disclosed Amount:** -
- AON:** N
- Time Condition:** DAY
- GTT Time:** -
- Constituent Name:** -

Buttons for 'Buy' and 'No' are visible at the bottom of the dialog. The background shows a table of market data with columns for Security, Maturity, Amount, Bid Yield, Price, Offer Price, Yield, Amount, LTP, LTY, LTA, and TTA.

(iv) *Modify/cancel bids*

Orders placed on NDS-OM can be modified or cancelled at any time before they get matched. This helps the member to update the order placed according to the price movements. Further, facility is also available to cancel all orders/ all buy orders/ all sell orders/ a particular order at a time depending on the requirement of the participant.

(v) *Odd lot*

To facilitate trading in smaller lot sizes by retail investors, a separate segment has been created in NDS-OM in which the minimum trading lot is Rs.10,000. This will facilitate smaller players like cooperative banks, provident funds and other financial institutions to trade in lot sizes that are less than Rs.5 crore. Since the prices are transparent and the platform provides anonymous trading, the interest of the small players is well protected.

(vi) *'When Issued' trading*

'When, as and if issued' (commonly known as 'When-Issued' (WI)) trading takes place between the time auction of a security is announced and the time it is actually issued. When issued or 'WI' security refers to a security that has been authorised for issuance but is not yet actually issued. All 'When Issued' transactions are on 'if' basis, that is, they are to be settled if and when the actual security is issued. Trading in 'When Issued' market is exclusively permitted only on NDS-OM. This helps price discovery of the securities being auctioned as well as the smooth distribution of the stock of securities that will be auctioned.

(vii) *Market enquiry*

During the day, market enquiry will show details like the day's high, low, last and weighted average yield and price and the previous day close for any selected security.

The screenshot displays the RBI - NDS GILTS Order Matching Segment interface. At the top, there are navigation tabs: Order Management, Market Query, Dealer Query, Member Query, Basic Data Query, Messages, Settings, and Help. Below this, a status bar shows various market data points including yield (4.000), price (8.3397), and maturity (14.35). The main table lists securities with columns for Security, Maturity, Amount, Bid Yield, Price, Offer Yield, Amount, LTP, LTY, LTA, and TTA. A 'Market Inquiry' window is open, showing details for '06.90 GOVT. STOCK 2019', including its previous close, open, high, low, net change, and LTA. A 'Messages' window is also visible, showing order status updates like 'Orders Placed', 'Orders Modified', and 'Orders on Hold'.

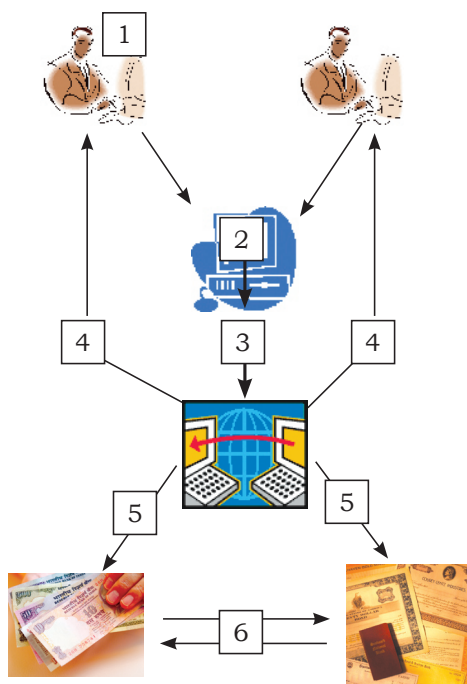
Security	Maturity	Amount	Bid Yield	Price	Offer Yield	Amount	LTP	LTY	LTA	TTA
08.28 GS 2032	15-Feb-32	5	8.3699	99.1000	99.4000	8.3397	5	99.4000	8.3397	10 G 15
06.90 GS 2019	13-Jul-19	10	7.8336	93.8500	93.9500	7.8178	10	93.8500	7.8336	20 G 110
07.02 GS 2016	17-Aug-16	5	7.5230	97.4425	97.5000	7.5115	15	97.4500	7.5215	5 G 815
06.35 GS 2020	02-Jan-20	10	7.7081	90.7075	90.7150	7.7069	5	90.7100	7.7077	5 G 1965
GOI FRB 2020	21-Dec-20	10	4.6779	92.5000	93.0000	4.6161	20	-	-	-
07.55 GS 2010	14-May-10	15	4.0556	100.9100	100.9200	4.0170	25	100.9200	4.0170	25 T 40
06.57 GS 2011	24-Feb-11	5	4.8200	101.7500	101.8500	4.7215	5	-	-	-
09.39 GS 2011	02-Jul-11	10	5.2047	105.5500	105.6300	5.1468	10	105.5500	5.2047	25 G 25
07.40 GS 2012	03-May-12	10	6.1284	102.6000	102.6400	6.1093	10	102.6000	6.1284	10 G 100
09.40 GS 2012	11-Sep-12	25	6.4108	107.0100	107.0775	6.3833	10	107.0000	6.4149	25 G 75
07.27 GS 2013	03-Sep-13	5	6.8410	101.3300	101.4000	6.8107	5	101.4200	6.8123	5 T 5
07.37 GS 2014	16-Apr-14	25	7.2672	100.3500	100.8500	7.1272	25	-	-	-
07.95 GS 2032	28-Aug-32	5	8.3510	95.9500	98.0600	8.1385	10	96.0400	8.3418	5 G 45

### (viii) Reports

Various reports can be generated on NDS-OM by users, as detailed below;

- Activity log – This report gives the detailed log of security wise orders - placed, traded and cancelled - with time details.
- Net funds position – This report gives the funds position of the dealer for the day on net basis by taking into account, the consideration amounts of sales and purchases carried out.
- Previous trades – A list of trades carried out during the day are listed out with details of each trade.
- Outstanding orders – Orders placed by the dealer that are yet to be matched are listed out in this report.
- Stock balance – This report gives the balances in each security at member level.
- ‘When Issued’ position report – This is also a member level report which gives separate net-buy, net-sell limits and positions for each security.

### Settlement of deals on NDS-OM



1. Participants place orders on NDS-OM
2. NDS-OM matches the orders and trade is done
3. Flow of trade details to the CCIL settlement systems
4. CCIL sends the net fund and security obligations to members
5. CCIL submits net settlement files at the end of day to RBI
6. Funds and securities settlement carried out in DvP (Delivery versus Payment) – both funds and securities legs are settled on a net basis

### Useful links

Reserve Bank of India : [www.rbi.org.in](http://www.rbi.org.in)

RBI Financial Market Watch : <http://www.rbi.org.in/Scripts/financialmarketwatch.aspx>

CCIL : [www.ccilindia.com](http://www.ccilindia.com)