

Pricing of Primary Issuances

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Primary issuances can be broadly categorized under 3 types :

1. Government Securities
2. Public Sector Undertaking (PSU) and Financial Institution (FI) bonds
3. Corporate Debentures

Government Securities are priced through an auction mechanism. Public sector or financial institution bonds and corporate debentures are not priced at a spread over the sovereign yield curve – as in developed markets – but are dependent on a host of other parameters which are discussed in detail below.

Government Securities Market

Treasury Bills (T-Bills)

Brief description

- Treasury Bills (T-Bills) are short-term obligations issued by the Reserve Bank of India (RBI) on behalf of the Government of India, through weekly and fortnightly auctions. The 14-day and 91-day auctions serve to manage

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the cash position of the Government of India whose revenue collections are typically bunched towards year-end whereas revenue expenditures are more evenly dispersed.

- The RBI auctions T-Bills of 14-day, 91-day and 364-day maturities. The 91-day T-Bill auction has a notified amount, while there are no notified amounts for 14-day and 364-day T-bill auctions.
- The minimum denomination of the 14-day and 91 day T-Bills is Rs.25,000 while that of the 364-day T-Bills Rs.1,00,000.
- The 14-day and 91-day T-Bill auctions occur every Friday and the 364-day T-Bills are auctioned every alternate Wednesday. Auctions are open to all resident individuals and corporates. Entities domiciled outside of India are not allowed to participate.
- Settlement for the auction occurs one business day later for 14-day and 91-day T-Bills and two business days later for 364-day T-Bills.

Bidding Method

- Securities are issued through a competitive Treasury-style French auction whereby the allotment is awarded to the highest bidders in terms of price with winning bids filled at their bid levels. The limit on bid size is the notified amount and no collateral is required.
- The 91-day T-Bill auctions have a notified amount which is filled by such bids, till a cut-off price. Pro-rata allotments are made for bids submitted at cut-off prices. Non-competitive bids are accepted from provident funds and State Governments, which are filled at the weighted average price of the successful bids.
- In the case of 14-day and 364-day T-Bill auctions, no notified amount is announced by the RBI, which accepts bids based purely on the yields bid for, up to a level decided by the RBI at that point in time.

Government Securities

Brief description

- Government Securities (GoISecs) are medium-to-long term obligations issued by the RBI on behalf of the Government of India, to finance the Government's deficit and public sector development programs.
- The minimum denomination of GoISecs is Rs.10,000. Trading and bidding normally take place in multiples of Rs.5 crore.

Primary Issuances

- GoISecs issuances are either fixed coupon issuances or auctions. In the fixed coupon issuance the coupon is fixed upfront by the Reserve Bank of India. A good example will be the 12.30% 10-year state government issuance for Rs.2367.56 crores on the 6th of October.
- In the auction method, the securities are issued through a Treasury style French auction whereby the allotments are awarded to the bids which fill the notified issue amount, starting from the lowest yield. Pro-rata partial allotments are made for bids at the cut-off yield. Sometimes the securities are also offered as optional conversion of T-Bills held by the market participants wherein only the amount to be converted needs to be specified. Limit on the bid size is the size of the auction and no collateral is required.

Pricing of Primary T-bills and dated Government Securities Auctions

The factors to be considered in pricing are liquidity and interest rates.

a. *Liquidity* - Major Indicators of liquidity in the system are:

- Call money rates
- Repo rates and amounts – larger amounts and lower rates indicate a comfortable liquidity position
- Foreign exchange rate movements, intervention volumes and net foreign assets
- Major inflows or outflows, into or from the system, like coupons, redemptions, food credit and tax.

b. *Interest rate view*: Factors affecting interest rate view are :

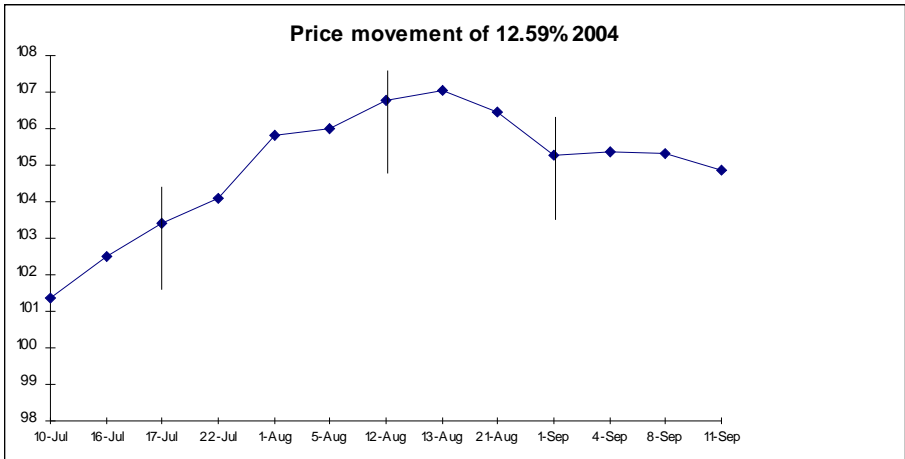
- *Prevailing secondary market yield levels*: 14-day and 91-day investors are generally buy-and-hold players while the bidders in the 364-day auctions include both the investors and traders. A yield differential generally exists between the primary and secondary yields because many players may not be willing to take bidding risk, especially in 364 day T-bills where a 1 basis point move is equal to 1 Paisa. If there is a developed term-money market, it could be used as a benchmark for pricing T-bills.
- *Short -term deposit rates*: The major factor in pricing of Government securities is the prevailing secondary market yield curve immediately before the bid. The markets' expectations of credit pickup vis-à-vis deposit accretion and foreign exchange inflows are viewed as an important input in forming the interest rate view.
- *Market sentiment*: Market sentiment is another major factor – this determines the composition of the investor class in the auction. Investors who trade their portfolios actively, bid aggressively in bullish markets and reduce their commitments in bearish markets. The market is also partitioned on maturity basis. Some players are restricted by their internal guidelines from taking exposure in securities whose residual maturity exceeds a specified limit – (say 3 years. However, there are others whose liability structures make long-dated securities (over 7 years) their preferred maturity bucket. This section is generally a buy and hold market which is more concerned with maximizing yield, irrespective of market expectations – for example provident funds. Thus the size of the issue vis-à-vis its maturity is an important determinant of the success as well as cut-off expectations of the auction.

Signals from the RBI and the Ministry of Finance is another important variable. OMOs, credit policy, statements by Governor and the Finance Ministry on inflation, credit and foreign exchange, play a key role in building market expectations. Other factors are market expectations on the foreign exchange position, fiscal deficit and status of the Government borrowing program.

Case Studies

Let us analyze three Government security auctions in the last six months under different conditions. The market had started on a big bull run from May 1997 which continued till early August 1997. The market was flat to slightly bullish in the first two fortnights of August 1997 but became increasingly bearish from mid-August 1997 through the first week of September 1997. This is represented in the price movements of 12.59% 2004.

Fig. 1. Price movement of 12.59% 2004 over the 3 auctions



1. Bull Market

Issuance of 11.83%2003 on 17th July, 1997

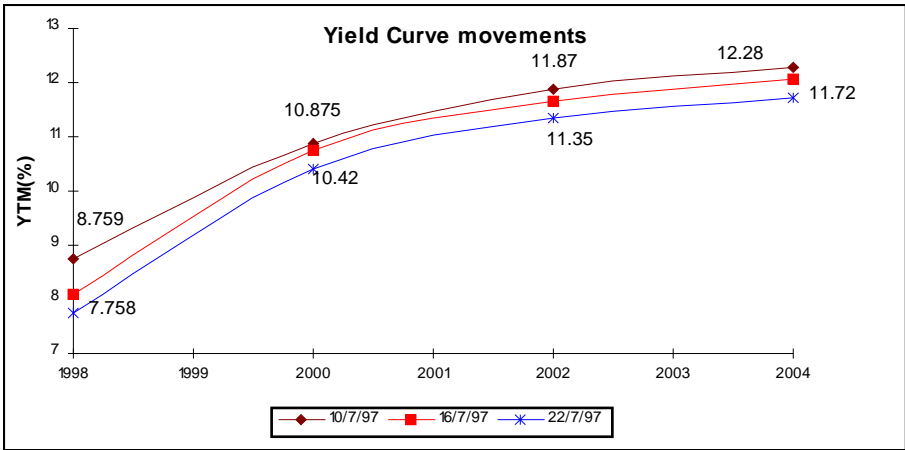
Announcement of a Rs.3000 crore, 6 year auction came on 10 July, 1997. Auction to be held on 17 July, 1997.

Prevalent conditions:

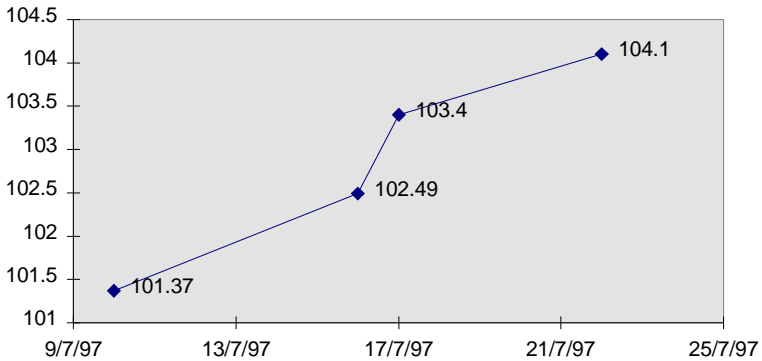
Call rates had been very low; Rs.6250 crore of repos done at 3.60%. The benchmark 12.59% 2004 was trading at 12.28% levels on 10 July, 1997. The undertone was so bullish that 12.59% 2004 went below 12.25% and was priced in at 12.05 % on day before auction – i.e. on 16 July. On the day of the auction 12.59% 2004 was priced at 11.86–91%. Cut-off on 2003 was

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at 11.83%. Bid amount was in excess of Rs.13,000 crore. After the auction, the new security traded at a Re.1 premium. The price went up to 101.95 within 10 days.



Price movement of 12.59% 2004



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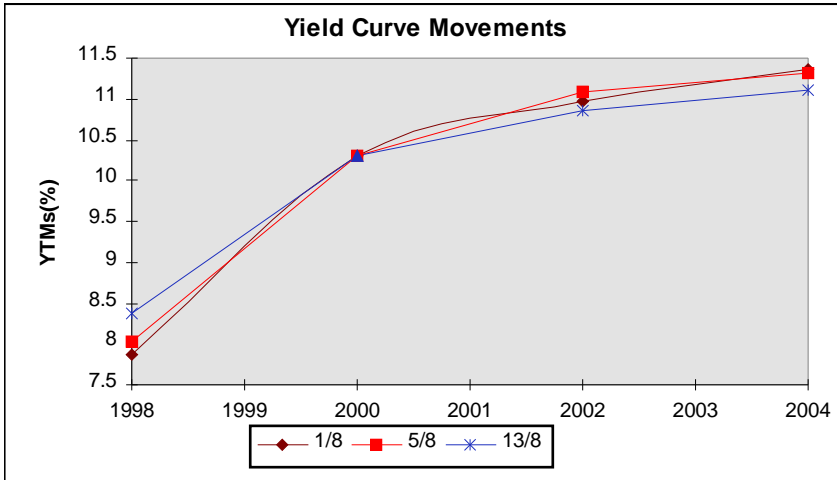
2. Flat Market

Issuance of 11.19% 2005

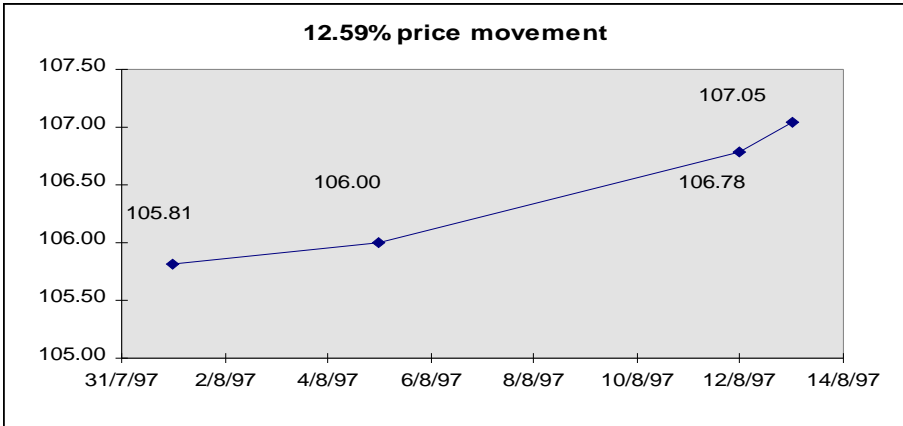
Eight (8) year auction announcement on August 4, 1997 for Rs.3,000 crore.

Prevailing market conditions

The market was moderately bullish; call rates were around 5–7%. Rs.3,200 crore were accepted in the repo auction on 11 August. In a flat market, secondary market yields are very important. 12.59% 2004 which was trading at around 11.32% a week earlier fell to around 11.24% the day before the auction. Auction day trades were at 11.10% – 11.17% levels. The auction saw bids for Rs.9000 crore with the cut-off at 11.19%. The new security traded at a slight premium – initial trades were at 100.45 which went up to 100.49 and then came back to par.



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3. Bearish Market

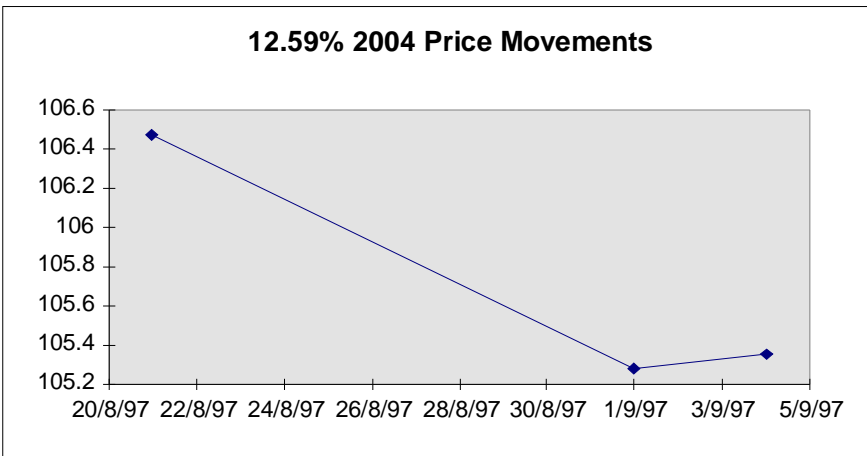
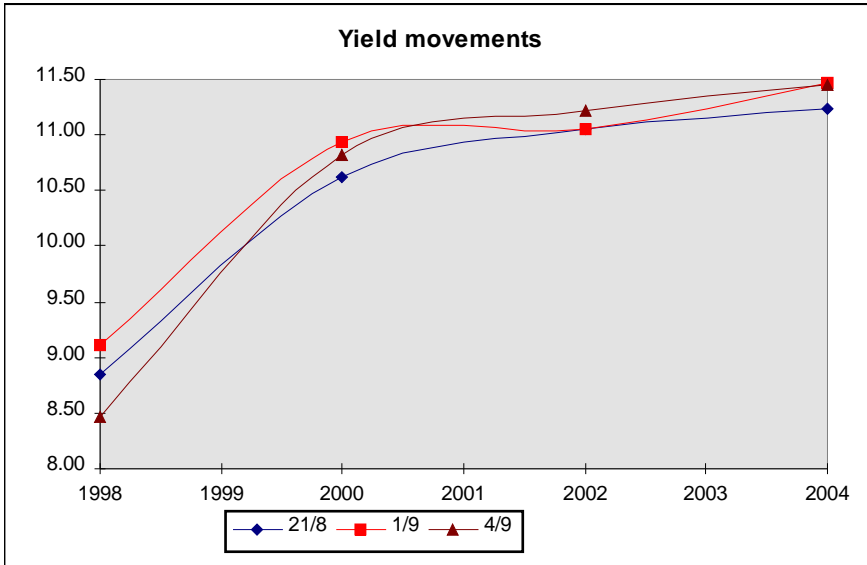
Issuance of 11.15% 2002

Announcement on 21 August of a Rs.5,000 crore on 01 September.

Prevailing market conditions

The market was in a bearish phase with high foreign exchange volatility having led to 2.5% drop in the Rupee. The 12.59% 2004 had lost Rs.3.50 in the fortnight. Market uncertainty coupled with expectations of large advance tax flows and RBI intervention in the form of Rupee purchases led the call rates to 8–10% range. Bond prices had crashed with no repo bids due to high call rates. Traded volumes in gilts had fallen substantially. This bearish sentiment led the 12.69% 2002 from around 11.05% on 21 August to 11.40– 50%. Market expectations indicated that the cut-off could not be above the recent 7 year at 11.19%. So the best bet was around the 11.10–15% levels. The auction saw about Rs.1,800 crore devolved on the Primary Dealers and about Rs.1,200 crore on the RBI. The new security has traded very close to par with some deals at below par.

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French Auction vs. Dutch Auction

The T-Bill and Government securities auctions are both French auctions where the bidders who have bid at less than or equal to the cut-off yield get allotments at their bids – the bids at cut-off get pro-rata. Unlike this, in a Dutch auction, like the auction for underwriting fees for Primary dealers, all the bidders who have bid at less than or equal to the cut-off get pro-rata allotment at the cut-off. The French auction imposes a bidding risk on the investors by imposing a penalty on successful bidders for being off the cut-off. Generally the standard deviation of bids in a French auction will be much lower than the Dutch auction. It has been seen that the Dutch auction brings down the cut-off in a bullish market.

PSU Bonds and Debentures

In advanced debt markets, bonds and debentures are priced at a spread above the government securities curve. The spreads reflect the adjustments made for credit/default risk and liquidity. Ideally the pricing of a PSU bond or debenture should be based on the following:

- Prevalent sovereign yields
- Credit/Default risk perception of the issue
- Liquidity premium over the more liquid GoISecs.

In practice, most players would also consider the following factors while pricing the issue:

- Yield on any recently issued paper of similar credit profile
- Nature of security offered
- Stamp duty applicable on transfer(differs from state to state).
- Credit rating issued by a rating agency
- Actual track record of timely payments of dues.
- Size and frequency of issues from the issuer.
- Various balance sheet ratios.
- Industry status- manufacturing/finance company.
- Promoter background

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- Regulatory constraints like capital adequacy and risk-weights, exposure limits, etc.

The secondary market rates are also used to price a primary offer but many investors do not participate in the secondary market.

Generally, PSUs are able to issue paper at lower rates than similar rated corporates because of the following reasons:

- Credit risk is perceived to be low.
- PSU bonds are transferable by endorsement and delivery and no stamp duty is payable on transfer.
- PSU bonds have a captive investor base in provident funds who have to invest at least 40% of their incremental accruals in PSU bonds.