

**Inflation Indexed Bonds (IIBs)**

1. Inflation Indexed Bonds (IIBs) were issued in the name of Capital Indexed Bonds (CIBs) during 1997. How is the new product of IIBs different from earlier CIBs?

- The CIBs issued in 1997 provided inflation protection only to principal and not to interest payment.
- New product of IIBs will provide inflation protection to both principal and interest payments.

2. How will inflation protection be provided to both principal and interest rate? Whether inflation component will be paid along with interest?

- Inflation component on principal will not be paid with interest but the same would be adjusted in the principal by multiplying principal with index ratio (IR). At the time of redemption, adjusted principal or the face, whichever is higher, would be paid.
- Interest rate will be provided protection against inflation by paying fixed coupon rate on the principal adjusted against inflation.
- An example of cash flows on IIBs is furnished below.

**Example 1 (For illustration purpose)**

| Year | Period    | Real Coupon | Inflation Index | Index Ratio                  | Inflation adjusted principal | Coupon Payments    | Principal Repayment |
|------|-----------|-------------|-----------------|------------------------------|------------------------------|--------------------|---------------------|
| I    | II        | III         | IV              | $V_{ti} = (IV_{ti}/IV_{t0})$ | $VI = (FV * V)$              | $VII = (VI * III)$ | VIII                |
| 0    | 28-May-13 | 1.50%       | 100             | 1.00                         | 100.0                        |                    |                     |
| 1    | 28-May-14 | 1.50%       | 106             | 1.06                         | 106.0                        | 1.59               |                     |
| 2    | 28-May-15 | 1.50%       | 111.8           | 1.12                         | 111.8                        | 1.68               |                     |
| 3    | 28-May-16 | 1.50%       | 117.4           | 1.17                         | 117.4                        | 1.76               |                     |
| 4    | 28-May-17 | 1.50%       | 123.3           | 1.23                         | 123.3                        | 1.85               |                     |
| 5    | 28-May-18 | 1.50%       | 128.2           | 1.28                         | 128.2                        | 1.92               |                     |
| 6    | 28-May-19 | 1.50%       | 135             | 1.35                         | 135.0                        | 2.03               |                     |
| 7    | 28-May-20 | 1.50%       | 138.5           | 1.39                         | 138.5                        | 2.08               |                     |
| 8    | 28-May-21 | 1.50%       | 142.8           | 1.43                         | 142.8                        | 2.14               |                     |
| 9    | 28-May-22 | 1.50%       | 150.3           | 1.50                         | 150.3                        | 2.25               |                     |
| 10   | 28-May-23 | 1.50%       | 160.2           | 1.60                         | 160.2                        | 2.40               | 160.2               |

**Example 2 (For illustration purpose)**

|    |           |       |       |      |       |      |     |
|----|-----------|-------|-------|------|-------|------|-----|
| 0  | 28-May-13 | 1.50% | 100.0 | 1.00 | 100   | 1.50 |     |
| 1  | 28-May-14 | 1.50% | 106.0 | 1.06 | 106   | 1.59 |     |
| 2  | 28-May-15 | 1.50% | 111.0 | 1.11 | 111   | 1.67 |     |
| 3  | 28-May-16 | 1.50% | 104.0 | 1.04 | 104   | 1.56 |     |
| 4  | 28-May-17 | 1.50% | 98.0  | 0.98 | 98    | 1.47 |     |
| 5  | 28-May-18 | 1.50% | 99.0  | 0.99 | 99    | 1.49 |     |
| 6  | 28-May-19 | 1.50% | 105.5 | 1.06 | 105.5 | 1.58 |     |
| 7  | 28-May-20 | 1.50% | 110.2 | 1.10 | 110.2 | 1.65 |     |
| 8  | 28-May-21 | 1.50% | 106.5 | 1.07 | 106.5 | 1.60 |     |
| 9  | 28-May-22 | 1.50% | 104.2 | 1.04 | 104.2 | 1.56 |     |
| 10 | 28-May-23 | 1.50% | 99.2  | 0.99 | 99.2  | 1.49 | 100 |

3. Whether capital protection will be provided?

- Yes, capital protection will be provided by paying higher of the adjusted principal and face value (FV) at redemption.
- If adjusted principal goes below FV due to deflation, the FV would be paid at redemption and thus, capital will get protected.

4. Why will WPI be used for inflation protection? Why CPI has not considered for the same?

- The consumer price index (CPI) reflects the inflation people at large face and therefore, globally CPI or Retail Price Index (RPI) is used for inflation target by the Central Banks as well as for providing inflation protection in IIBs.
- In India, all India CPI is being released since January 2011 and it will take some time in stabilizing. Monetary policy

has also been continuing to target WPI for its price stability objective. In view of above, it has been decided to consider WPI for inflation protection in IIBs.

5. What is the formula for calculating index ratio?

- Index ratio (IR) will be calculated by dividing the reference WPI on the settlement date with the reference WPI on the issue date.
- The formula for the same is as under:

$$\text{Index Ratio}_{\text{Set Date}} = \frac{\text{Ref WPI}_{\text{Set Date}}}{\text{Ref WPI}_{\text{Issue Date}}}$$

6. Why will final WPI be used with a lag of four months?

- Final monthly WPI will be used as reference WPI for 1st day of the calendar month. The reference WPI for intermittent days, i.e. dates between 1st days of the two consecutive months will be computed through interpolation.
- For interpolation, two months final WPI should be available throughout the month. As final WPI is available with a lag of about two and half months (e.g. final WPI February 2013 will be released in mid-May 2013), two months final WPI could be available only with a lag of four months.
- In view of above, the four months lag has been chosen for final WPI to be considered as reference WPI for 1st day of the calendar month. For example, December 2012 final WPI will be taken as reference WPI for 1st of May 2013 and January 2013 final WPI will be taken as reference WPI for 1st of June 2013.

7. What is the formula for interpolation of daily reference WPI?

- For calculating the index ratio for a specific date, daily reference WPI values would be linearly interpolated using 'Ref WPI' for the first day of the calendar month and the first day of the following calendar month.
- The formula for computing the reference WPI for a particular day is as under:

$$\text{Ref WPI}_{\text{Set Date}} = \text{Ref WPI}_M + \frac{(t - 1)}{D} \times (\text{Ref WPI}_{M+1} - \text{Ref WPI}_M)$$

[Ref WPI<sub>M</sub> = Ref WPI for the first day of the calendar month in which Date falls, Ref WPI<sub>M+1</sub> = Ref WPI for the first day of the calendar month following the settlement date, D = Number of days in month (e.g. 31 days in August), and t = settlement date (e.g. August 6)]

- An example of daily reference WPI computed through interpolation is furnished below.

| Date      | Ref WPI<br>(Given) | T-1 | D  | Ref WPI<br>(Interpolation) |
|-----------|--------------------|-----|----|----------------------------|
| 1-May-13  | 168.8              |     |    |                            |
| 2-May-13  |                    | 1   | 31 | 168.85                     |
| 3-May-13  |                    | 2   | 31 | 168.90                     |
| 4-May-13  |                    | 3   | 31 | 168.95                     |
| 5-May-13  |                    | 4   | 31 | 168.99                     |
| 6-May-13  |                    | 5   | 31 | 169.04                     |
| 7-May-13  |                    | 6   | 31 | 169.09                     |
| 8-May-13  |                    | 7   | 31 | 169.14                     |
| 9-May-13  |                    | 8   | 31 | 169.19                     |
| 10-May-13 |                    | 9   | 31 | 169.24                     |
| 11-May-13 |                    | 10  | 31 | 169.28                     |
| 12-May-13 |                    | 11  | 31 | 169.33                     |
| 13-May-13 |                    | 12  | 31 | 169.38                     |
| 14-May-13 |                    | 13  | 31 | 169.43                     |
| 15-May-13 |                    | 14  | 31 | 169.48                     |
| 16-May-13 |                    | 15  | 31 | 169.53                     |
| 17-May-13 |                    | 16  | 31 | 169.57                     |
| 18-May-13 |                    | 17  | 31 | 169.62                     |
| 19-May-13 |                    | 18  | 31 | 169.67                     |
| 20-May-13 |                    | 19  | 31 | 169.72                     |
| 21-May-13 |                    | 20  | 31 | 169.77                     |
| 22-May-13 |                    | 21  | 31 | 169.82                     |

|           |       |    |        |
|-----------|-------|----|--------|
| 23-May-13 | 22    | 31 | 169.86 |
| 24-May-13 | 23    | 31 | 169.91 |
| 25-May-13 | 24    | 31 | 169.96 |
| 26-May-13 | 25    | 31 | 170.01 |
| 27-May-13 | 26    | 31 | 170.06 |
| 28-May-13 | 27    | 31 | 170.11 |
| 29-May-13 | 28    | 31 | 170.15 |
| 30-May-13 | 29    | 31 | 170.20 |
| 31-May-13 | 30    | 31 | 170.25 |
| 1-June-13 | 170.3 |    |        |

8. If there is a revision in the base year of WPI series, how will the revised series be used for indexation?

- WPI series is being revised after every 10 or more years (e.g. base year revision in WPI series took place in 1981-82, 1993-94 and 2004-05).
- Any revision in the base year would be tackled by splicing the base years so that a consistent WPI series with the same base year is available for indexation purpose since the issue date of the bond.

9. What will be the tax treatment of interest payment and capital gains accrual due to inflation?

- Extant tax provisions will be applicable on interest payment and capital gains on IIBs.
- There will be no special tax treatment for these bonds.

10. What is non-competitive bidding and how will retail investors be able to participate in the same?

- A non-competitive scheme has been devised for participation of such investors in the auction. Under this scheme, investors are required to indicate the amount of their bids and not the price at which they want to subscribe. Allocation to such investors is made at the weighted average price emerged in the competitive bidding.
- Presently in auction, up to 5 per cent of the notified amount is reserved for non-competitive bidding, while up to 20 per cent of the notified amount will be earmarked for such bidding in case of IIBs to encourage retail participation.
- The retail investors will be able to participate in non-competitive bidding through primary dealers (PD) and banks. They can open a gilt account with PDs and banks or demat account for such participation.

11. Whether foreign institutional investors (FIIs) will be allowed to invest in IIBs?

- IIBs would be Government securities (G-Sec) and the different classes of investors eligible to invest in G-Secs would also be eligible to invest in IIBs.
- FIIs would be eligible to invest in the forthcoming IIBs but subject to the overall cap for their investment in G-Secs (currently USD 25 billion).

12. Whether IIBs will be traded in the secondary market?

- As IIBs are G-Sec, they can be tradable in the secondary market like other G-Secs. Investors will be able to trade them in NDS-OM, NDS-OM (web-based), OTC market, and stock exchanges.

13. Whether investors will be able to participate in the primary auction of IIBs through web-based platform?

- Not as of now.
- The work on web-based platform for primary auction is, however, underway and as and when the same is completed, investors will be able use the same for participating in the primary auction of G-Secs including IIBs.

14. Whether IIBs will be eligible for short-sale and repo transactions?

- IIBs would be a G-Sec and therefore, would be eligible for short-sale and repo transactions.

15. Whether IIBs will be eligible for statutory liquidity ratio (SLR)?

- IIBs would be a G-Sec and issued as part of the approved Government market borrowing programme.
- Therefore, IIBs would automatically get SLR status.

16. What will be the settlement cycle for IIBs?

- Settlement cycle of IIBs will be T+1, like fixed rate conventional bonds.

17. What will be the day count for IIBs?

- Like other G-Secs, the day count for IIBs would 30/360.

18. Whether issuance of this instrument will be within the Govt market borrowing programme?

- Yes, issuance of IIBs would be within the Govt market borrowing programme of about Rs. 579,000 crore for 2013-14.

19. What will be the maturity of IIBs?

- To begin with, IIBs will be issued for 10 years.
- As it is advisable to issue IIBs at various maturity points to have benchmarks and cater to diverse market demands, more maturity points may be explored subsequently.

20. What will be the frequency of coupon payment on IIBs?

- Like other G-Secs, coupon on IIBs would be paid on half yearly basis.
- Fixed coupon rate would be paid on the adjusted principal.

21. What will be the frequency of issuance of IIBs?

- As indicated in the press release issued by Reserve Bank of India on May 15, 2013, IIBs would be launched on June 4, 2013 and the same would be issued on the last Tuesday of each month during 2013-14. This would also include the last Tuesday of June 2013.

22. Auction of IIBs would be yield based or price based?

- As is the case with fixed rate conventional bonds, IIBs would be issued through yield based auction and subsequent reissues will be through price based auction.
- Investors would be required to bid for real yield in case of IIBs as against nominal yield in case of fixed rate G-Sec.

23. Whether IIBs will be underwritten by primary dealers (PDs)?

- Like fixed rate G-Secs, IIBs would be underwritten by the primary dealers.

24. What is going to be the issuance size of IIBs for each tranche?

- As indicated in our press release dated May 15, 2013, size of the each tranche would be Rs. 1,000-2,000 crore.

25. Will there be exclusive series of IIBs for retail investors?

- Exclusive series for retail investors would be launched in the second half of the current fiscal year (around October 2013).

26. Whether product structure of the retail series of IIBs would be same as series of IIBs of all investors?

- Product structure of the series of IIBs for retail investors is yet to be finalised. It will be finalised in the due course and accordingly, the same would put in the public domain.

27. What will be methodology for valuation of these bonds?

- Fixed Income Money Market and Derivatives Association of India (FIMMDA) will come out with valuation guidelines shortly.