<u>Inflation Indexed Bonds – Bidding in the Auctions</u>

The Inflation Indexed Bonds have to be priced on "Real Yields"

Referring to the **<u>Fisher Equation</u>** for estimating the relationship between nominal and real interest rates,

If:

r = Real Interest Rate

i = Nominal Interest Rate

π = Inflation Rate

Nominal Interest Rate = Real Interest Rate + Inflation Rate

Or $i = r + \pi$

Or $r = i - \pi$

Fisher has derived a better approximation which states:

$1+ i = (1+r)\,(1+ \pi)$

which gives:

$\boxed{\text{Real Interest Rate 'r'} = (1+i) / (1+ \pi) - 1}$

For the purpose of FIMMDA's "Interim Model",

We shall be using:

Nominal Yield = Equivalent tenor "par yield"

Π = Illiquidity Premium IP + Inflation Expectation IE

= (IP + IE)

Following Fisher Equation:

$$\boxed{\text{Real Yield} = \frac{(1+ \text{Par Yield})}{(1+ (\text{IP}+\text{IE}))} - 1}$$

The Auction for the first IIB would be for a tenor of 10 years.

The market participants would Bid for the "Real Yield" when a New Par IIB is issued.

Obviously, the market participants for the auction of the Par Bond would bid for a total desired "Real Yield" Return which would include the illiquidity premium and expectation of inflation during the life of the bond.

Assume the auction cut – off comes at 1.25% for the New 10 yr Inflation Indexed Par Bond issued in 2013. The new IIB would be named as 1.25% II GS 2023 or similar nomenclature.

The coupon of 1.25% would remain fixed for the life of the bond.

Subsequent re-Issues of the Auctions would be price based.

In the first auction of the IIB, the consideration to be paid would be the face value.

On re-issues, which will be price based, the consideration to be paid would be ("***Price x Index Ratio***") + (***Broken Period Interest x Index Ratio***)

For Calculation of ***"Index Ratio"***please refer to RBI's Technical Papers on IIBs dated December 09, 2010 and Capital Indexed Bonds dated May 24, 2004.