CARE Ratings' Corporate Bond Monitor (CCBM)

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Objective:

To establish benchmarks for corporate bond yields and spreads. This is akin to the movements in 'GSec Yields' which are easier to follow given that these benchmarks have been well established. Such indices would provide an indication of the trend and direction of corporate yields. Hence CCBM, which is a graphic presentation of movements in corporate bond yields represented in the disparate manner, can be used to gauge various aspects of corporate bond yields based on secondary market transactions.

Need for Corporate Bond Indices:

Given the lack of homogeneity in corporate bonds traded as there are different ratings of each instrument that is traded besides differing tenures (which also holds for GSecs), it is difficult to have a singular number that denotes movements in their yields. A single indicator or a set of indicators that could capture the movement of corporate bond yields in secondary markets would be beneficial as it would provide ballparks relating to the prevalent cost of funds for corporates. It would also enable one to draw comparisons with the movements in yield of GSec yields and those on corporate bonds and of the relative spread between the two.

CARE Ratings Approach:

Different concepts are used to capture the movements of Corporate Bond Yields. CARE Ratings' Corporate Bond Monitor comprises a set of Indices

1. Index of Corporate Bond Yields Movement across maturities - 15 yrs, 10 yrs, 5 yrs and 1 yr
2. Index of Corporate Bond Yields Spread over GSec Yields
3. Index of Yield of corporate bonds traded in the market (for a generalized view). This is a general commentary and will not be specific for any tenure of paper and is analogous with the average yield on GSecs that is calculated for any period. In this case it is the average yield on all transactions during the month.

Data for CCBM

The source of the data is the daily 'Corporate Bond Trade data' from FIMMDA. The trade data includes

- Security name
- Coupon
- Maturity
- Rating
- Weighted average yield
- GSec base yield
- Spread over –GSec
- Cumulative value of trades
- Number of trades and
- Weighted average price.

To maintain homogeneity, the series has been cleansed which has meant excluding some data points which are outliers.

(1) Spread over GSec has been given as negative or very high (over 20% or 2000 bps)

(2) Weighted average yield is not provided, Nifty Linked, Zero Coupon Bonds etc

(3) GSecs yields not available or very low.

Construction of Indices:

A. CARE Corporate Bond Index

The construction of the indices is based on the Laspeyres Method, where the current value is compared with the base year value (2011-12). The base year selected for these Indices has been set at 2011- 2012 which coincides with the base year used for the calculation of other economic variables such as GDP, IIP and WPI.

CARE Corporate Bond Index defined as

$$\textit{Index} = \frac{(\textit{Average yield in the Current Month}\ ) * 100}{(\textit{Average yield for}\ \ 2011{-}12\ )}$$

where,

- ***Average yield in current month*** is calculated as summation of 'Daily Traded Volume * Yield' across all trades during the month ÷ 'Cumulative Traded Volume in the month'.
- ***Average yield for*** 2011-12 is the average of monthly yield from Apr'11 to Mar'12.

5 Indices have been prepared for:

1. All trades during the month
2. For 15 yrs maturity we have considered residual maturity of 14.5 yrs to 15.5 yrs
3. For 10 yrs maturity we have considered residual maturity of 9.5 yrs to 10.5 yrs
4. For 5 yrs maturity we have considered residual maturity of 4.5 yrs to 5.5 yrs
5. For 1 yr maturity we have considered residual maturity of 0.5 yrs to 1.5 yrs

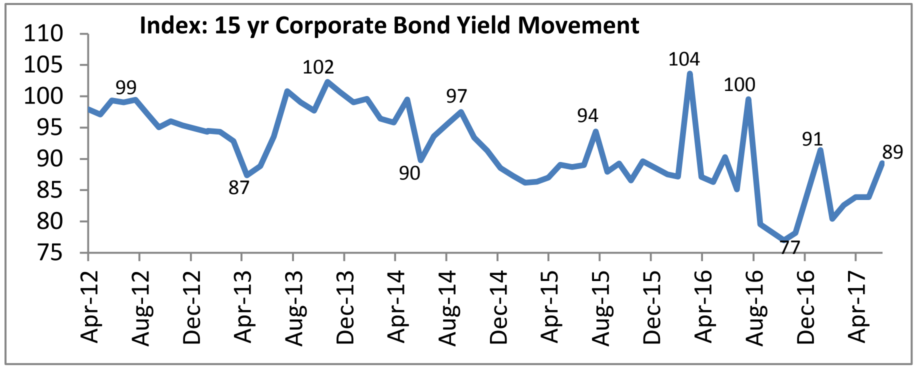
B. CARE Corporate Bond Spread Index (Spread over G-sec)

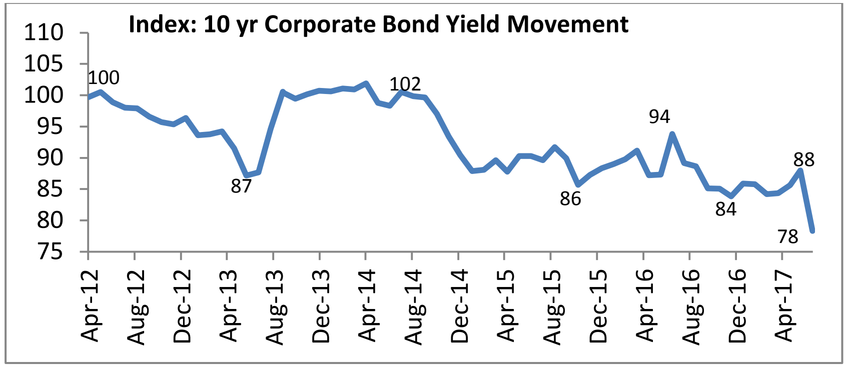
$$\textit{Index} = \frac{(\textit{Current Spread Value}) * 100}{(\textit{Average Value of } 2011\text{–}12)}$$

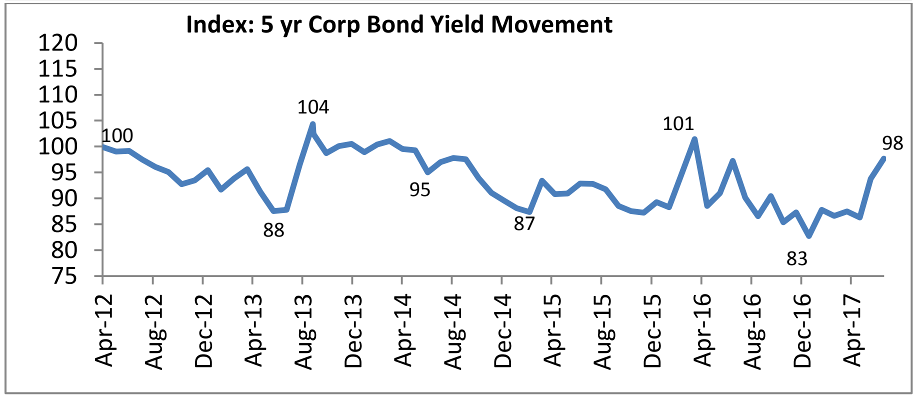
where,

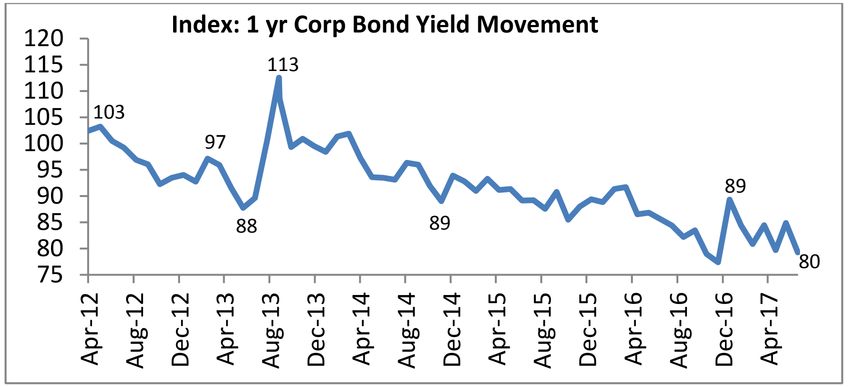
- ***Current spread value*** is calculated as 'Cumulative Traded Volume* Spread over G-sec' across all trades during the month ÷ 'Cumulative Traded Volume'
- ***Average spread Value*** of 2011-12 is the average of monthly value from Apr'11 to Mar'12.

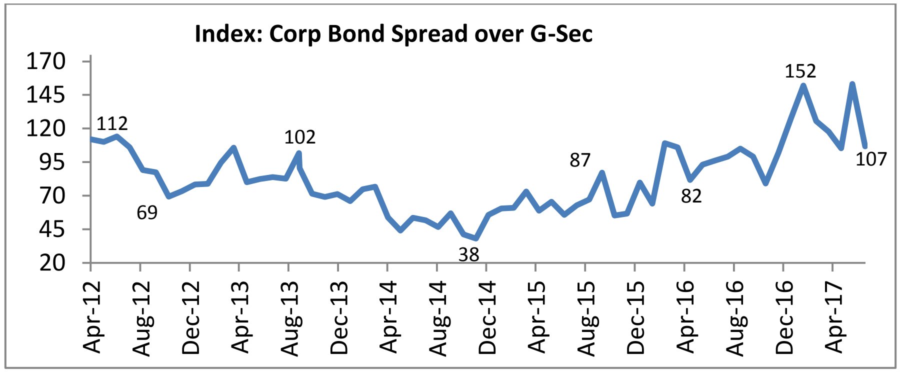
CARE Ratings Corporate Bond Monitor (CCBM)

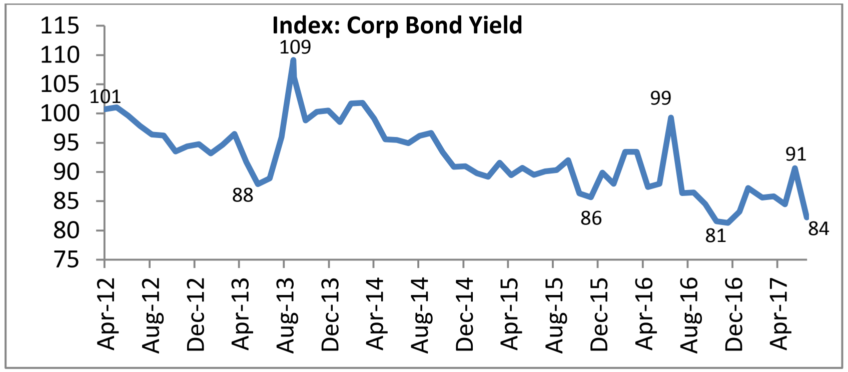












*Includes securities whose spread from G-Secs range from 7-19% or 700 bps to 1900 bps

- The volatility, which measures the change/fluctuations in the index (yields) in either direction (in this case during a month), is higher in case of the 15 year corporate bonds, compared with that of the lower duration bonds. As volatility is reflective of the risk perception in the market, it can be deduced that the 15 year corporate bond have a higher risk associated with them. The volatility of 10 year and 5 year corporate bonds is lower compared to that of the 1 year corporate bonds. The monthly annualized volatility of the index of spread of corporate bond yield over GSec yield has been the highest amongst all the indices. The fluctuations in the yield spread of corporate bonds over GSecs have been large in the last 5 years, reflective of the risk perception of investors towards corporate bonds.

Index	15 yr Corp Bonds	10 yr Corp Bonds	5 yr Corporate Bonds	1 yr Corporate Bonds.	Corporate Bond Spread over Gsec	Corp Bond
Annualized Monthly Volatility (Apr'12 to June'17)	0.22	0.10	0.14	0.15	0.68	0.15

- In terms of traded volume, the 15 year corporate bonds on an average have been accounting for 2% of the aggregate trades. The 10 year, 5 year and 1 year bonds account for 10%, 12% and 13% of the aggregate trades.

	Traded Value (Rs.Cr) - 15 yrs corp bonds	Traded Value (Rs.Cr)- 10 yr corp bonds	Traded Value (Rs.Cr)- 5 yr corp bonds	Traded Value (Rs.Cr)- 1 yr corp bond	Aggregate Trades in Corporate Bonds (Rs.Cr)
2012-13	12,665	102,498	95,560	81,244	708,775
2013-14	39,662	101,920	122,659	172,181	943,224
2014-15	10,755	125,695	101,171	141,086	987,677
2015-16	6,581	72,845	103,601	102,932	858,782
2015-17	586	2,278	5,549	13,877	83,864
2016-17	29,653	159,325	184,682	122,657	1,242,193
2017-18 (Upto June'17)	9,887	40,817	53,757	40,576	367,591

	% share of trades in 15 yr corporate bond	% share of trades in 10 yr corporate bond	% share of trades in 5 yr corporate bond	% share of trades in 1 yr corporate bond
2012-13	2	14	13	11
2013-14	4	11	13	18
2014-15	1	13	10	14
2015-16	1	8	12	12
2015-17	1	3	7	17
2016-17	2	13	15	10
2017-18 (Upto June'17)	3	11	15	11

- The Index of Spread of Corporate Bonds over GSecs indicates the narrowing of the spread since the start of 2017. This in turn is reflective of the decline in cost of funds for corporates as well as the increase in demand for corporate bonds. The spread of Corporate Bonds over GSecs, as indicated in the movement of the index, has narrowed by 21 bps in the six months to June'17.
    - The spread however continues to be higher than that a year ago (Apr'16). The spread of Corporate Bonds over GSecs widened considerably since Nov'16, attributed to the increased demand for GSecs following demonetization, where the surplus liquidity in the banking system found its way into GSecs lowering their yields. However this may be considered to be temporary in nature.

- The Index of Corporate Bond Yield shows that yields have declined during June'16 to June'17. The average annual corporate bond yields have seen a steady decline since 2013 (from 9.44% in 2014 to 8.54% in 2016 and 8.36% in the first 6 months of 2017), indicative of the steady decline in cost of funding via bond markets for corporates in recent years.

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