



# M/S. K.A. Pandit

*Consultants and Actuaries*

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**Topic to be covered:**

**Volatility in the Interest Rate -  
September 2018**

**Contents:**

**Background**  
**Changes**  
**Comments**  
**Contact Us**

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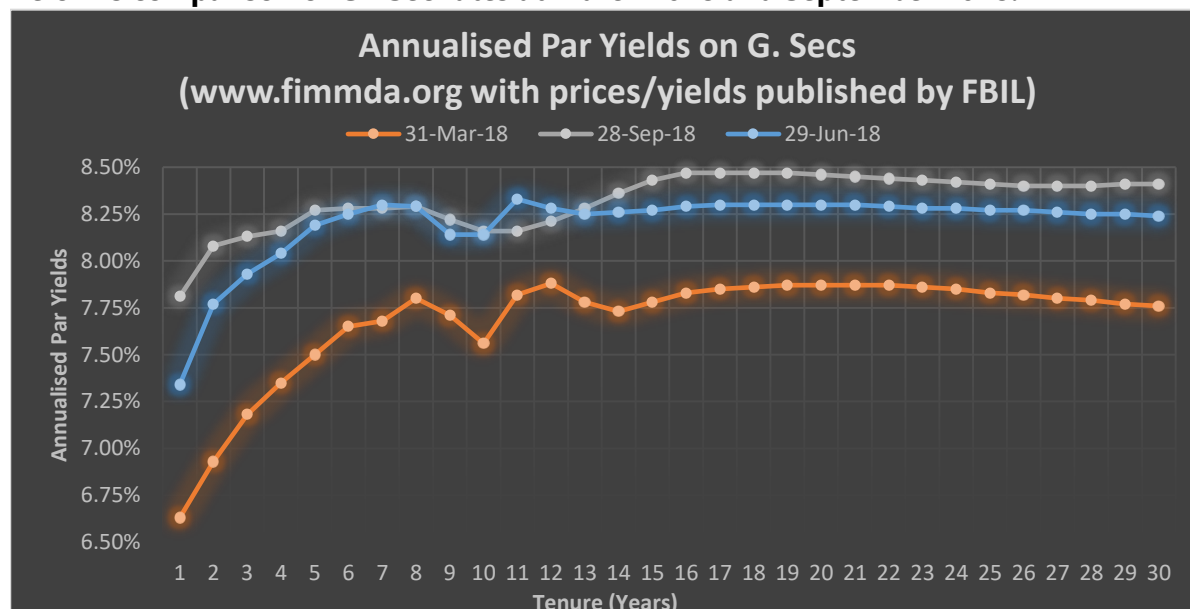
## Background

- Employee Benefit Obligations are to be valued based on G-Sec rate of estimated term (expected future service/ expected future life time) as prevalent at the end of the reporting period.
- 10 Years G.Sec. Yield was 7.56% as on 31<sup>st</sup> March 2018 and is 8.16% as on 28<sup>th</sup> Sept 2018, resulting in an increase in the yield of 0.60%.
- CPI Index:
 

Oct 2017 - Sept 2017	0.70 %	Oct 2017 - Oct 2016	3.24 %
Apr 2018 - March 2018	0.35 %	Apr 2018 - Apr 2017	3.97 %
July 2018 - June 2018	3.44 %	July 2018 - July 2017	5.61 %
- The yearly CPI has increased from 3.24% in October 2017 to 5.61% in July 2018 to 12 months high level.
- Impact of change in assumption is recognised in Profit & Loss in case of AS 15, whereas in case of Ind AS 19 it is recognised through OCI.
- As Discount rate has increased it will result into decrease in liability and Actuarial Gain due to change in financial assumptions.

## Changes

Below is comparison of G - Sec rates at March 2018 and September 2018.



Annualised Par Yields on G. Secs as at 28-09-2018 (www.fimmda.org with prices/yields published by FBIL)

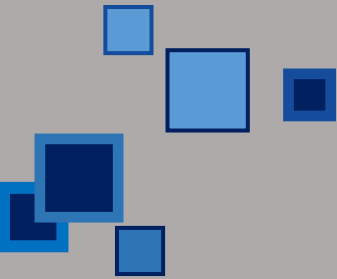
Year	1	2	3	4	5	6	7	8	9	10
Yield	7.81%	8.08%	8.13%	8.16%	8.27%	8.28%	8.28%	8.29%	8.22%	8.16%
Year	11	12	13	14	15	16	17	18	19	20
Yield	8.16%	8.21%	8.28%	8.36%	8.43%	8.47%	8.47%	8.47%	8.47%	8.46%
Year	21	22	23	24	25	26	27	28	29	30
Yield	8.45%	8.44%	8.43%	8.42%	8.41%	8.40%	8.40%	8.40%	8.41%	8.41%

### **Comments**

- Increase in G- Sec yield will decrease the Actuarial liability.
- In case Ind AS valuation is taken by company, Income in OCI due to the change in discount rate assumption can be estimated from Sensitivity of Obligation as disclosed at March 2018 under Ind AS 19.
- If a correlation in the assumptions are to be considered, one must take a re-look at the future salary escalation and if the Net gap remains same, there may not be much change in the liability. One must discuss this correlation with actuaries so as to have correlated assumptions.
- There is also a possibility of the fair value of the Plan Assets going down due to the increase in the yield resulting in the higher provision requirements for funded plans which are linked to market movement.
- Over the last couple of years, G-Sec rate is very volatile and decreased to significantly low rate in past, this had resulted into Actuarial Loss on Obligation in previous periods particularly in 2016-17. In 2017-18 G-Sec started increasing resulted into Actuarial Gain due to Financial Assumption. In this period (March 2018 to Sept 2018), since discount rate has increased further significantly, it will lead to *Actuarial Gain on Obligation due to change in financial assumption*.
- In case of Ind AS this volatility is passed through OCI for Post-Employment Benefit plans so Profit and Loss account remain consistent.
- Discount rate is taken based on G-Sec rate of estimated term of obligation, as G-Sec rates vary a lot across various term of bonds. Estimated term of obligation is calculated by actuarial techniques applying probability of Attrition and death rate. So it is suggested to review Attrition rate assumption based on actual past experience of company.
- In case of June 2018 to September 2018, G-Sec rate is approximately similar and on an average increased by 10-12 basis points as shown in above graph.

### **Reference:**

Inflation: <http://www.inflation.eu/inflation-rates/india/current-cpi-inflation-india.aspx>  
G-Sec Yield: ([www.fimmda.org](http://www.fimmda.org) with prices/yields published by FBIL) (Per Annum yield)



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