

# Financial Risk Management

Are we getting better or prone to more risk?

14<sup>th</sup> Current Issues in Life Assurance (CILA) seminar

Kailash Mittal

# AGENDA

---

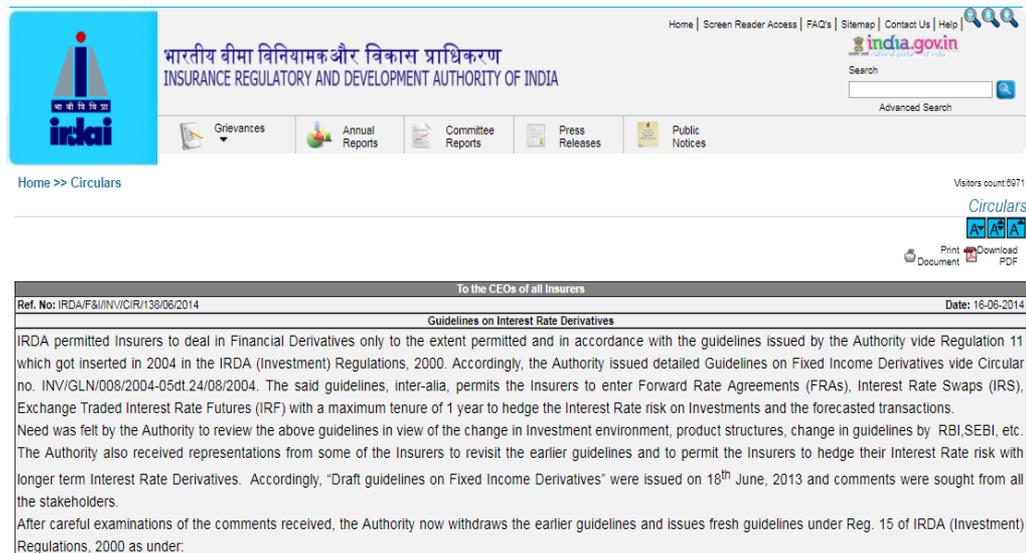
➤ Interest Rate Risk

➤ Credit Risk



# New Guidelines on interest rate derivatives set the ball rolling... Circular issued in June 2014

- ❖ The said guidelines, permitted the Insurers to enter **Forward Rate Agreements (FRAs), Interest Rate Swaps (IRS), Exchange Traded Interest Rate Futures (IRF)** and
- ❖ removed the tenure limit of 1 year which was applicable earlier..
- ❖ The overriding principle of any use of the above listed derivatives is that they must be used for **hedging** purposes only to reduce the interest rate risk in the company.



The screenshot shows the IRDAI website with the following details:

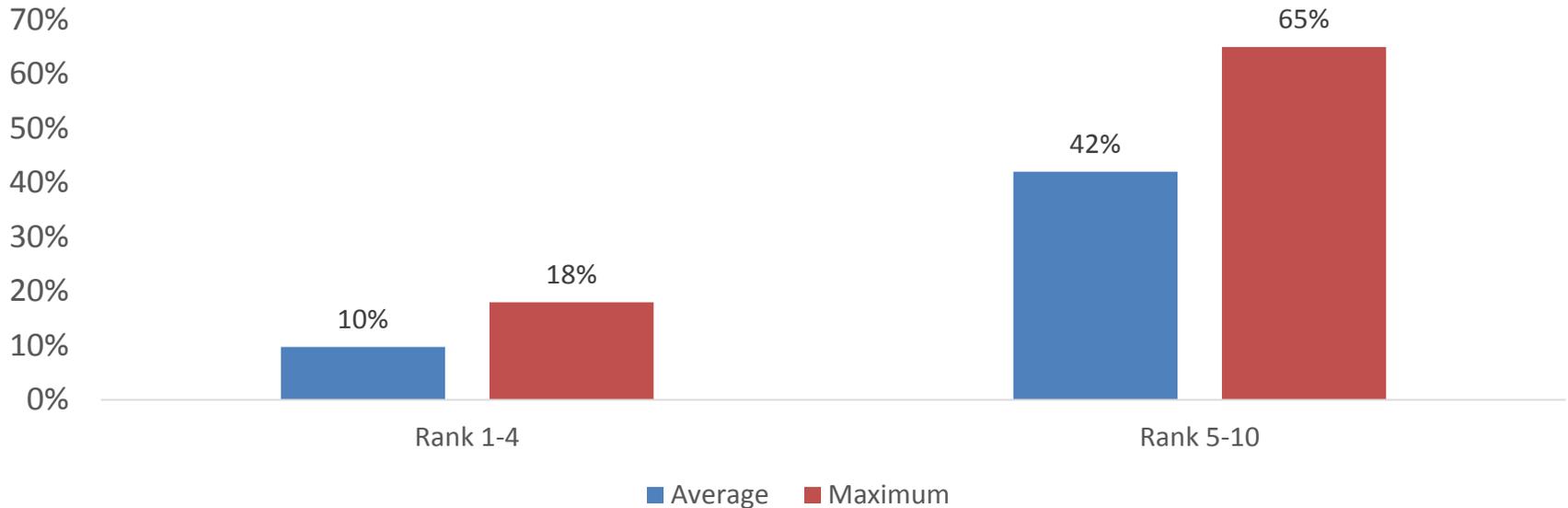
- Header: भारतीय बीमा विनियामक और विकास प्राधिकरण (INSURANCE REGULATORY AND DEVELOPMENT AUTHORITY OF INDIA)
- Navigation: Home, Screen Reader Access, FAQs, Sitemap, Contact Us, Help
- Search: Search bar with "Advanced Search" button
- Menu: Grievances, Annual Reports, Committee Reports, Press Releases, Public Notices
- Page Title: Home >> Circulars
- Visitors count: 9971
- Section: Circulars
- Document actions: Print, Download PDF
- Ref. No: IRDA/F&I/INV/CIR/138/06/2014
- Date: 16-06-2014
- Subject: Guidelines on Interest Rate Derivatives
- Text: IRDA permitted Insurers to deal in Financial Derivatives only to the extent permitted and in accordance with the guidelines issued by the Authority vide Regulation 11 which got inserted in 2004 in the IRDA (Investment) Regulations, 2000. Accordingly, the Authority issued detailed Guidelines on Fixed Income Derivatives vide Circular no. INV/GLN/008/2004-05dt.24/08/2004. The said guidelines, inter-alia, permits the Insurers to enter Forward Rate Agreements (FRAs), Interest Rate Swaps (IRS), Exchange Traded Interest Rate Futures (IRF) with a maximum tenure of 1 year to hedge the Interest Rate risk on Investments and the forecasted transactions. Need was felt by the Authority to review the above guidelines in view of the change in Investment environment, product structures, change in guidelines by RBI, SEBI, etc. The Authority also received representations from some of the Insurers to revisit the earlier guidelines and to permit the Insurers to hedge their Interest Rate risk with longer term Interest Rate Derivatives. Accordingly, "Draft guidelines on Fixed Income Derivatives" were issued on 16<sup>th</sup> June, 2013 and comments were sought from all the stakeholders. After careful examinations of the comments received, the Authority now withdraws the earlier guidelines and issues fresh guidelines under Reg. 15 of IRDA (Investment) Regulations, 2000 as under:



# Key product categories and risks

- Unit – linked
  - Investment risks borne by the p/h
- Participating
  - Investment upside belongs to the p/h, with downside protection
- Non-participating
  - Investment risks borne by the insurer
  - Market dynamics and pressures nudging insurers to go aggressive?? OR
  - Are proper and effective risk management practices enhancing p/h value proposition?? E.g. deferred annuities?

# NB share of Non-par savings in top 10 private insurers



- While one may attribute multiple reasons for this variation, is there a structural risk that private players are being exposed to?
- One may want to look at the solvency ratio, best risk practices and other related measures being adopted by insurers for effective risk management, but are they enough???

Source: Public disclosures and market intelligence – subject to approximations.  
Ranking of insurers based on total weighted new business APE till YTD Dec2018

# Levels of Guaranteed P/h IRRs baked into premiums

## Higher Pay Variants :

	Company 1	Company 2	Company 3
Customer IRR	4.4%	4.5%	5.0%
Product Term	10 Pay 20	12 pay 22	15 Pay 30

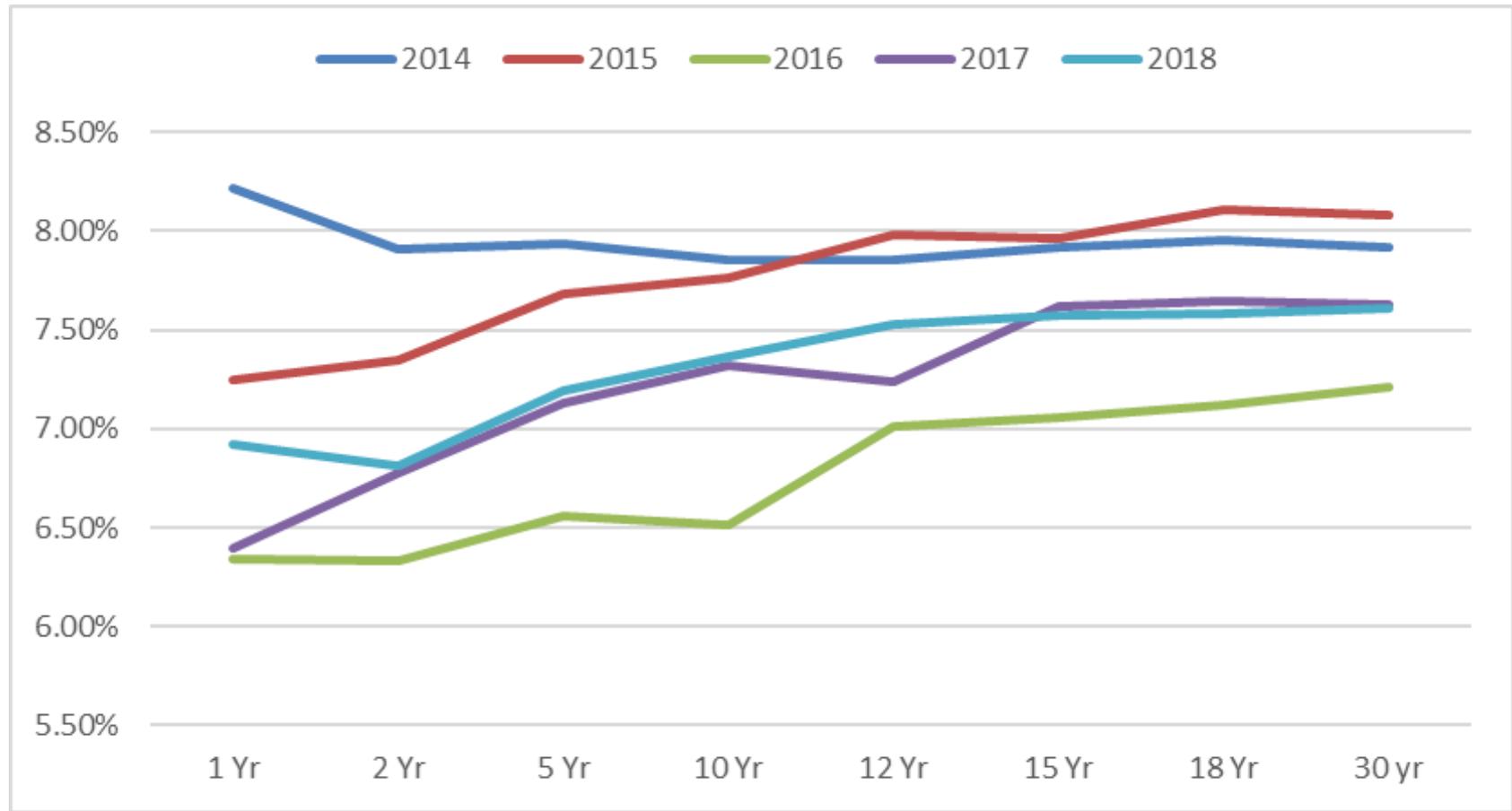
## Lower Pay Variants :

	Company A	Company B	Company C	Company D
Customer IRR	4.9%	5.5%	4.3%	3.7 %
Product Term	6 Pay 12	5 Pay 15	7 Pay 15	5 Pay 10

- Customer IRRs ranging between 4.5% to 5%, with one closer to 3.5%.
- Adding approximately 200 bps towards mortality, expenses and profit margin, implied interest rate guarantees appear to be ~ 6.5% - 7.5% p.a. for 10-20 years
- Derivatives (FRA and IRS) are presumably supporting these bets.

Source: Analysis of company brochures / illustrations

# Yield Curve Movement



# Key Issues - General

---



- Which direction are Interest rates headed?
- What Techniques are being used to assess this risk?
- How comfortable are we taking guarantees as high as 7.5% p.a. for 15 years?
  - Given current 15 yr Gsec yield is around 7.5%pa?
- What are the potential ‘fair’ capital requirements?
- Do we sufficiently understand/foresee inherent risks?
  - Reinvestment & Liquidity risk?
- Are we relying on
  - Lower contract persistency (either through early lapses or surrenders) as a rescue? If yes, to what acceptable extent?
  - What if persistency improves a lot? Rationale p/h behavior in falling interest rates environment?
  - Extent of reliance on Corporate Bonds for higher returns? What about credit risk?
- What extent of prudence is factored in policy reserves? Is there any residual risk and the likely call on shareholders capital?

# Key Issues - Hedging

---



- Are appropriate derivatives to hedge interest risk available?
  - In sufficient quantity?
- Extent of reliance on availability of derivatives to manage interest rate risk?
- Do we completely understand what the derivatives are able to hedge, and more importantly, not able to hedge?
  - Is there any residual tail risk with the insurers?
- Is the Risk-Reward relationship tenable?
  - In short-term? Long-term?
- Would derivatives create issues we are unable to foresee right now?

# AGENDA

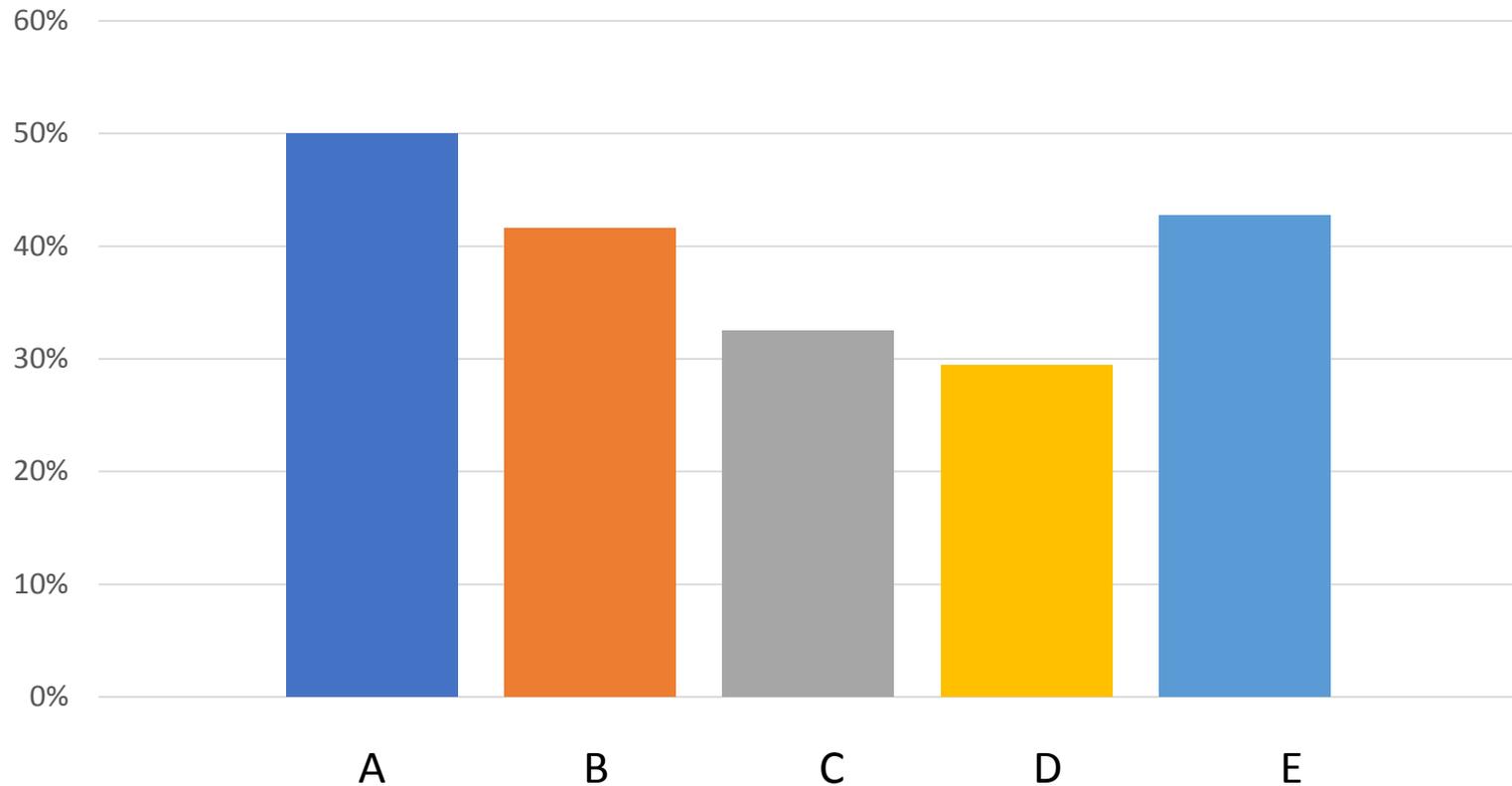
---

➤ Interest Rate Risk

➤ Credit Risk



# Corporate Bond exposure at an aggregate level (% total assets)



*Please note: Includes total portfolio including linked and non-linked funds*

# Are credit ratings the ultimate truth?



Multiple think-tanks researching on causes of Global Financial Crisis (GFC) have found role of credit rating agencies to be among the top 5 reasons\*

Investigations<sup>#</sup> revealed that most credit rating agencies rated the most risky contingent assets (*that eventually crashed*) to be high-grade investment category... which further fueled the bubble...

Sources:

\* Stigler Center at the University of Chicago Booth School of Business

# <https://www.govinfo.gov/content/pkg/GPO-FCIC/pdf/GPO-FCIC.pdf> Page 229

# We have had our own stories closer home...



**Till July 2018, most credit ratings maintained IL&FS in the  
'investment grade'.**

Source: <https://www.livemint.com/Companies/kDBrz7DB4Ti4Pz2TdxG85N/How-credit-rating-agencies-missed-the-ILFS-crisis.html>

# Key Issues - General

---



- So, how should life insurers manage their credit risk better?
- How can we go beyond the rating agencies' view?  
Or understand their limitations?
  - How do we factor these in?

And now, let us discuss with experts...