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IFRS 17 Discounting: Lessons Learnt and Methodological Considerations

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Discount rate: what it is and why it matters

Introduction

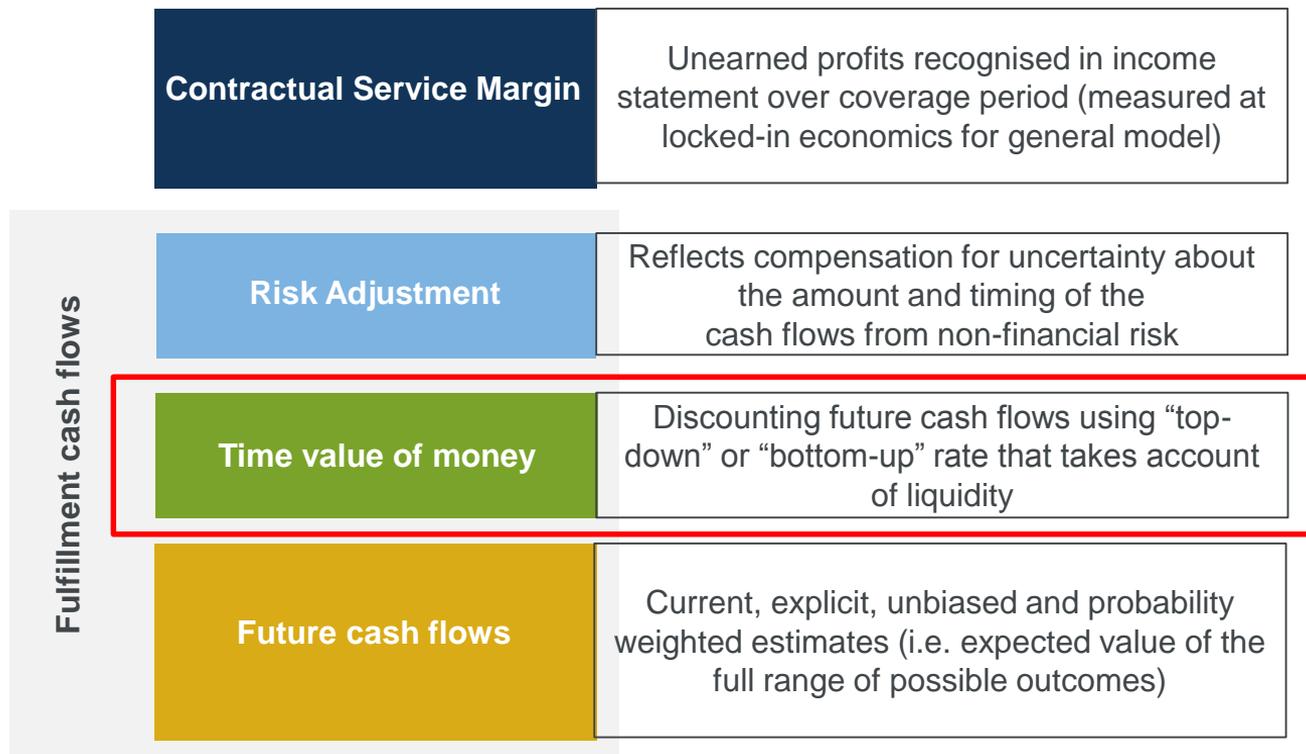
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IFRS 17 – Overview

- IFRS 17 was published in May 2017, 20 years after the IASB project on insurance contracts was initially announced
- Replaces IFRS 4 and has an effective date of 1 January 2021
- IASB proposed to delay the effective date by one year to 1 January 2022
- Another significant change to insurance companies following the implementation of Solvency II

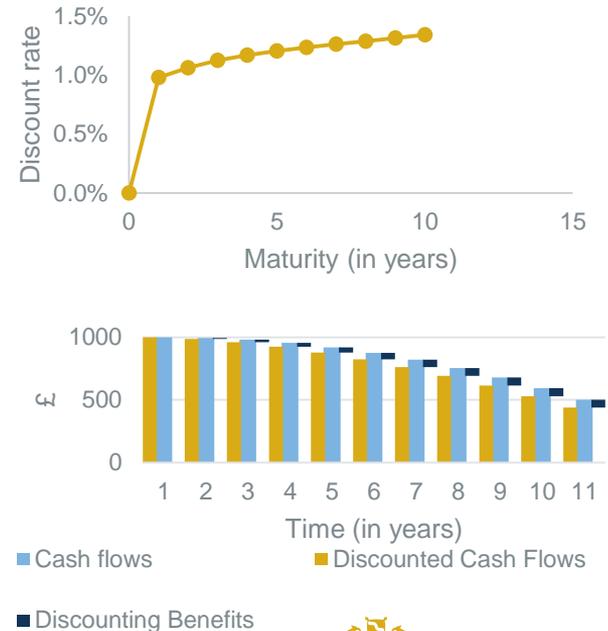


IFRS 17 – Balance Sheet



What is time value of money?

- Everyone prefers to receive £1 “*sooner rather than later*”.
- This inter-temporal preference is what gives rise to the notion of interest rate: i.e. the return you would require to take one £ and deposit it for 1-year (term-structure).
- The time value of money is the difference between value of cash received now and cash received in the future if invested.
- Application in insurance:
 - The value of a liability is determined by estimating the worth of the stream of future cash flows, by discounting cash flows.





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What does IFRS 17 say on discounting?

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IFRS 17 Discounting: General Principles

36

Discount rate should be consistent with:

- **the timing, currency and liquidity of the liabilities**
- **observable current market prices (where available)**

B74

Discounting should reflect financial risk **only if this is part of the projected cash flows** (e.g. remove credit risk to discount cash flows that are not credit risk sensitive).

B78

In the following two circumstances, firms can estimate an appropriate discount rate:

- discount rates with characteristics comparable to the insurance contracts in terms of cash flow timing, liquidity, etc. may not be available at all;
- some discount rates for financial instruments comparable to the insurance contracts may be observable, but it may be inherently hard to separate features that are similar to those of insurance contracts from those which are not.



IFRS 17 Discounting: Methodological Routes

- The standard (**B78**) requires the following characteristics to apply to the estimation of discounting:
 - Maximising the use of **observable data**;
 - Reflecting the **market conditions** at the time of the estimation;
 - Applying **expert judgement** to assess differences between features of insurance contracts and features of the financial instruments used in the estimation.

The standard gives a choice of two methodologies to set the discount rate:

B80

Discount rate can be estimated using a **bottom-up approach** (start with risk free curve and add a liquidity premium)

B81

Discount rate can be estimated using a **top-down approach** (start with the total yield on a reference portfolio and deduct credit risk)



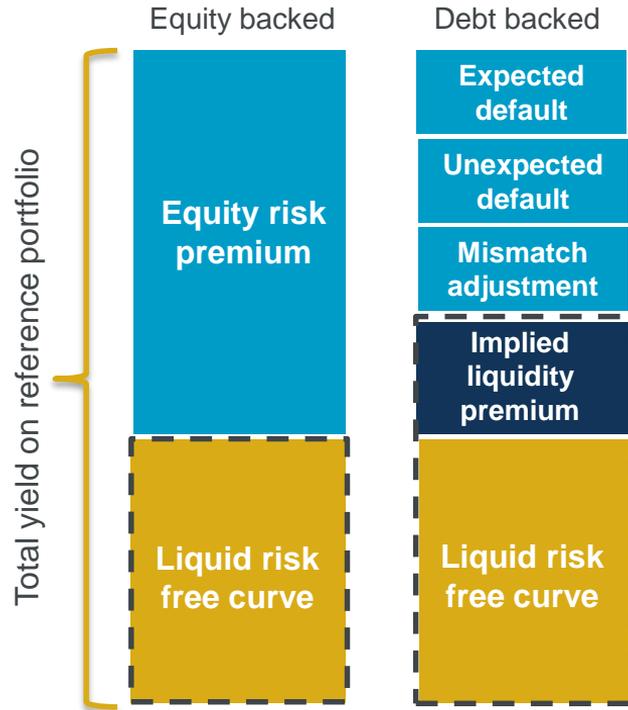


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Practical considerations to derive discount curves

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IFRS 17 Top-down discount rate



- The starting point is a reference portfolio of assets, which well approximates the liability cash flows in terms of timing, currency and magnitude.
 - IFRS 17 does not specify restrictions on the reference portfolio of assets which can lead to very different outcomes.
 - September '18 TRG clarified that reference portfolio can be **actual asset portfolio** over time, but could use an appropriate **hypothetical portfolio** or a **target portfolio**.
 - Not required to adjust yield curve for differences in liquidity characteristics between liabilities and reference portfolio, albeit a reference portfolio that is well-matched to the liability may align the liquidity of assets and insurance contracts.



= Discount rate

Top-down



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IFRS 17 Bottom-up discount rate



- Starting point is a liquid risk-free yield curve.
 - Not prescribed.
 - Solvency II curves derived by EIOPA may be a good starting point.
- Calculate a market price for illiquidity (liquidity premium) from suitable market instruments to get 100% liquidity premium
 - How to balance using market observable data with assessing market price of illiquidity which isn't readily observable?
- Analysis on the predictability of cash flows is key to support the argument for the use and size of liquidity premium

 = Discount rate



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The Determinants of Credit Spreads



- For simplicity, let us consider a single bond. Deriving IFRS 17 discount rate entails to disentangle the different drivers of a credit spread.
- A credit spread can be decomposed into two key components:
 - Credit premium;
 - liquidity premium

Both these premiums are measurable, but not directly observable in the market (unlike the yield, the credit spread or the liquid risk free curve).

Furthermore measurement method is not unique.

 = market observable



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An example using a corporate bond

0.50% as at
31st August
2019



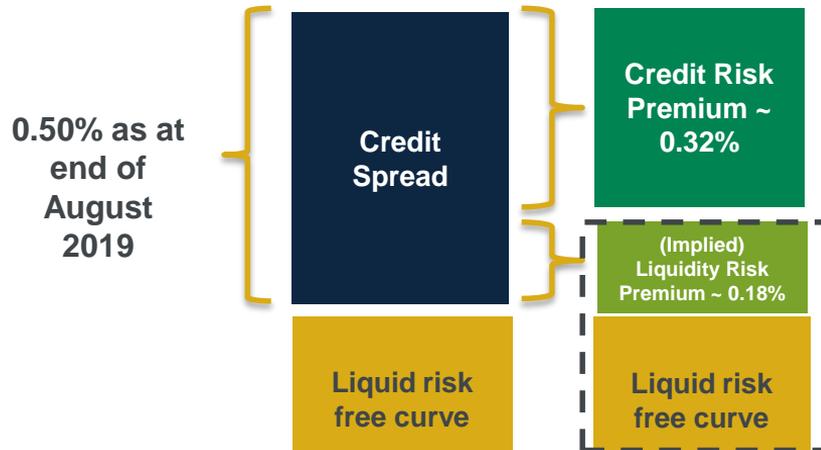
Corporate bond features
YBLDS 1.250 17-Mar-2022 YORKSHIRE BUILDING SOCIETY
Rating: A
Option Adjusted Spread (OAS): 0.50%
Maturity ~ 3 years
Sector: Financial bond

To obtain IFRS 17 discount rate we need to decompose the credit spread into credit risk and liquidity premiums.

*Mismatch adjustment has been omitted in this example

Top-down: an approach to derive credit risk deductions

- Notwithstanding the non-prescriptive nature of the standard, a method to arrive to deductions for the credit risk premium is included in the standard:
 - “One way to estimate the effect of credit risk is to use the market price of a credit derivative as a reference point” (paragraph B85)
- In our example, this would mean:



- Credit Default Swap (CDS) spreads approximate the credit risk premium associated with a bond.
- In a top-down approach, the IFRS 17 discount rate will include the liquidity premium.

⋮ = Discount rate

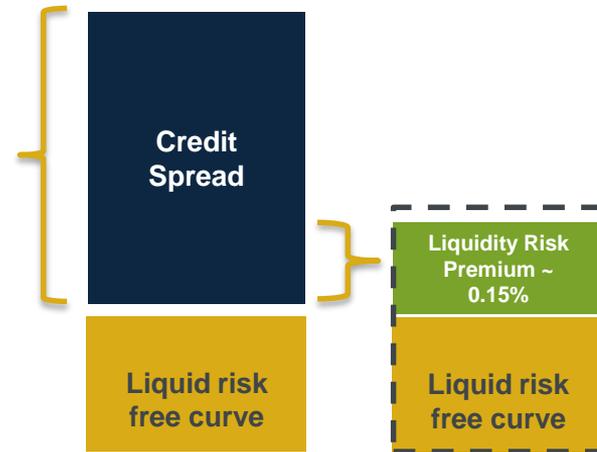


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Bottom-up: an approach to derive the liquidity premium

- A market-observable measure of liquidity premium can be obtained from covered bond spreads.
- Characteristics of a covered bond:
 - Very good rating (typically above A)
 - Collateralised (to a pool of properties)
 - Therefore **negligible credit risk premium**
- In the bottom-up approach, a liquid reference risk-free rate is lifted up by including a liquidity premium.
- The starting risk-free rate should be free of any credit risk / counterparty risk premium.

0.50% as at
end of
August
2019

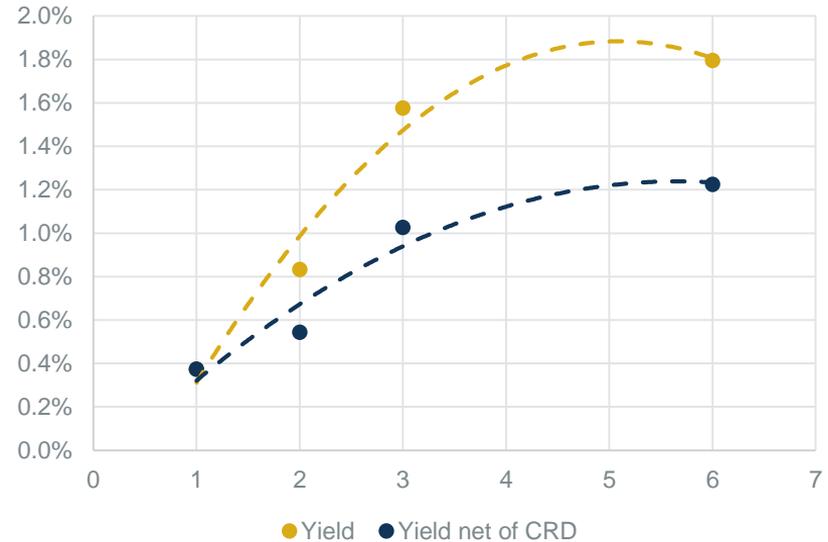
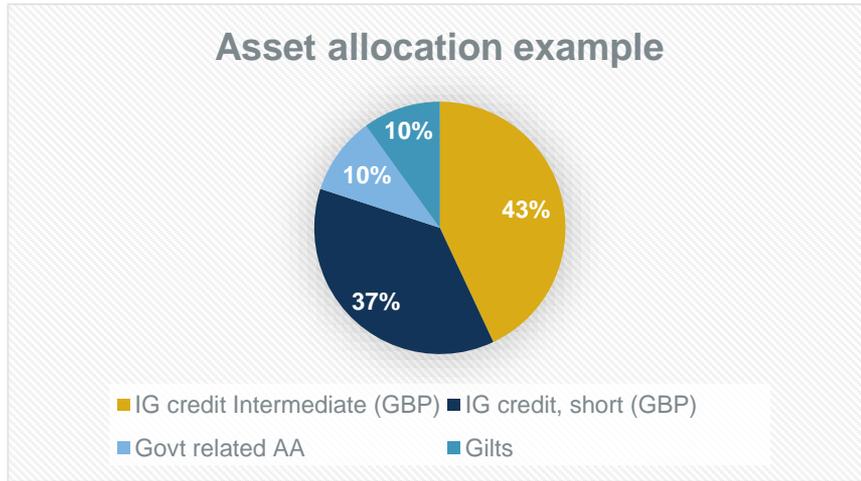


--- = Discount rate



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Portfolio example and discounting for a non-life insurer



Key steps to build discount curves:

1. Choose reference portfolio matching the liability cash flows in terms of currency and amount;
2. Extract yields (e.g. Yield to Maturity) and duration;
3. Obtain the component of the credit spread that is purely related to expected/unexpected losses as (Credit Risk Deduction - CRD);
4. Extract CRD from yields.



Points for further consideration

- **Granularity** – choosing an appropriate level of granularity based on the actual data availability (e.g. not all corporate bonds have a corresponding covered bond, CDS method may result in a negative liquidity premium).
- **Using market indices** – the use of market indices can help reducing the scale of the exercise (a few market indices vs. the totality of the financial securities held). However, it requires deriving measures for credit risk deductions or liquidity premium, e.g. based on historical data.
- **Deriving a term-structure of interest rate** – a term-structure of interest rates may be more appropriate to account for the time value of money. This may require using market indices bucketed by residual maturity. However, not all the bucketed indices contain enough instruments to be deemed as representative.
- **Expected and Unexpected Credit Losses** – credit risk premium is a multi-faceted notion that includes many different risk types (e.g. default risk, downgrade risk, etc.). Expected as well as unexpected losses should be considered.





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Accounting and financial implications of discounting

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Where does discounting matter?

- **Onerous contracts** – Discounting can influence the way groups of contracts are recognised and their onerousness. Lower discount rates reduce the time value benefits and this has an impact on balance sheet and income statement on transition.
- **Profit-and-Losses (or Other Comprehensive Income) volatility** – Compared to IFRS 4, a heightened level of volatility is expected to appear in either P&L or OCI. However, in presence of assets in excess of the liabilities, the overall income statement volatility will be dominated by the asset side. Therefore, ALM strategies as well as accounting classifications of assets could to an extent mitigate this volatility.
- **Interest accretion on the liabilities** – Discount rates also affect the interest rate that will accrete on the liabilities and feed into the financial expenses of the income statement. Alongside other factors, this will contribute to change the liabilities in the subsequent measurement periods.
- **Disclosures** – Yield curves, approach and methodology used to derive the yield curves, amounts and reconciliations of insurance finance income or expenses at transition and on an ongoing basis need to be disclosed.



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The OCI option: mitigating P&L volatility

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What is OCI in IFRS 17

- Option to recognise the effects of changing market conditions on liability valuations in two different ways :
 - Through profit and losses (P&L)
 - Through a disaggregation between profit and losses (P&L) and Other Comprehensive Income (OCI)
- Amount recognised as OCI is the difference between the total *insurance finance income or expenses* and the amount included in P&L.
- Recognise under OCI the change in liability valuation that takes place in presence of a discount rate different from the locked-in rate set at the inception. The locked-in rate at inception may be significantly higher than current market yields.



Implications of OCI option

- Volatility materialises in the OCI and reduces P&L volatility
- Under the OCI option:
 - Discount unwind (in P&L) is calculated at locked-in rate at inception/when the claim occurs
 - Changes in liability are split between inclusion within P&L and OCI
 - Effect on yield curve changes is recorded in OCI (as a difference due to the gap between current rate and locked-in rate)
- IFRS 17 discounting involves obtaining historic yield curve data as far back as liabilities are still held.
- P&L volatility will ultimately depend on classification of assets under IFRS 9



Operational challenges OCI

- Data sourcing, e.g. historical and current asset yields
- Model build, system enhancement
- Potentially more complex analysis of change tracking and reconciliations across assets and liabilities
- Different accounting regimes governing assets and liability sides
- Different implementation dates: 1-Jan-18 (deferrable to 1-Jan-21) and 1-Jan-21 (deferrable to 1-Jan-22) for IFRS 9 and IFRS 17, respectively





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Concluding Remarks

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Concluding remarks

- Discounting is at the heart of IFRS 17: it affects different components of the IFRS 17 balance sheet and income statement, including the CSM.
- There is no single way to derive IFRS 17 discounting and, unlike Solvency II, IFRS 17 is non prescriptive.
- The liability fair-value will change with yield curve movements. Alongside the assets held on the balance sheet, this will generate volatility in the income statement.
- The OCI option offers a way to mitigate some of the P&L volatility due to changes in yield curves. However, it comes with heightened operational costs.



Questions

Comments

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