Institute and Faculty of Actuaries

Life Conference 2022

23–25 November, ACC Liverpool

#LifeConf

Institute
and Faculty
of Actuaries

The transfer market

James Gillespie FIA, NatWest Markets
Brandon Choong FIA, Deloitte

#LifeConf

Speakers

James Gillespie
Associate
NatWest Markets

James.Gillespie@natwestmarkets.com

Brandon Choong
Senior Manager
Deloitte

bchoong@deloitte.co.uk

Institute and Faculty of Actuaries

Contents

Institute and Faculty of Actuaries

Transfer value – regulatory definition

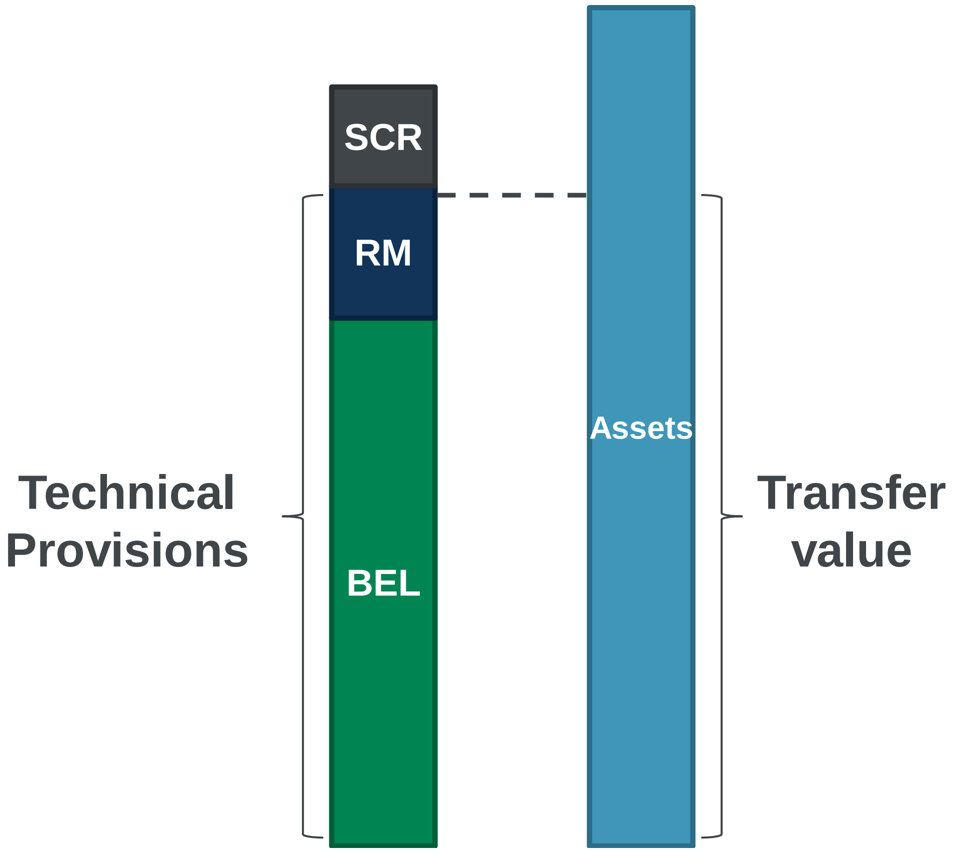
Solvency II Directive

Article 76 (2)

The value of **technical provisions** shall correspond to the current amount insurance and reinsurance undertakings **would have to pay** if they were to **transfer** their insurance and reinsurance obligations immediately to another insurance or reinsurance undertaking.

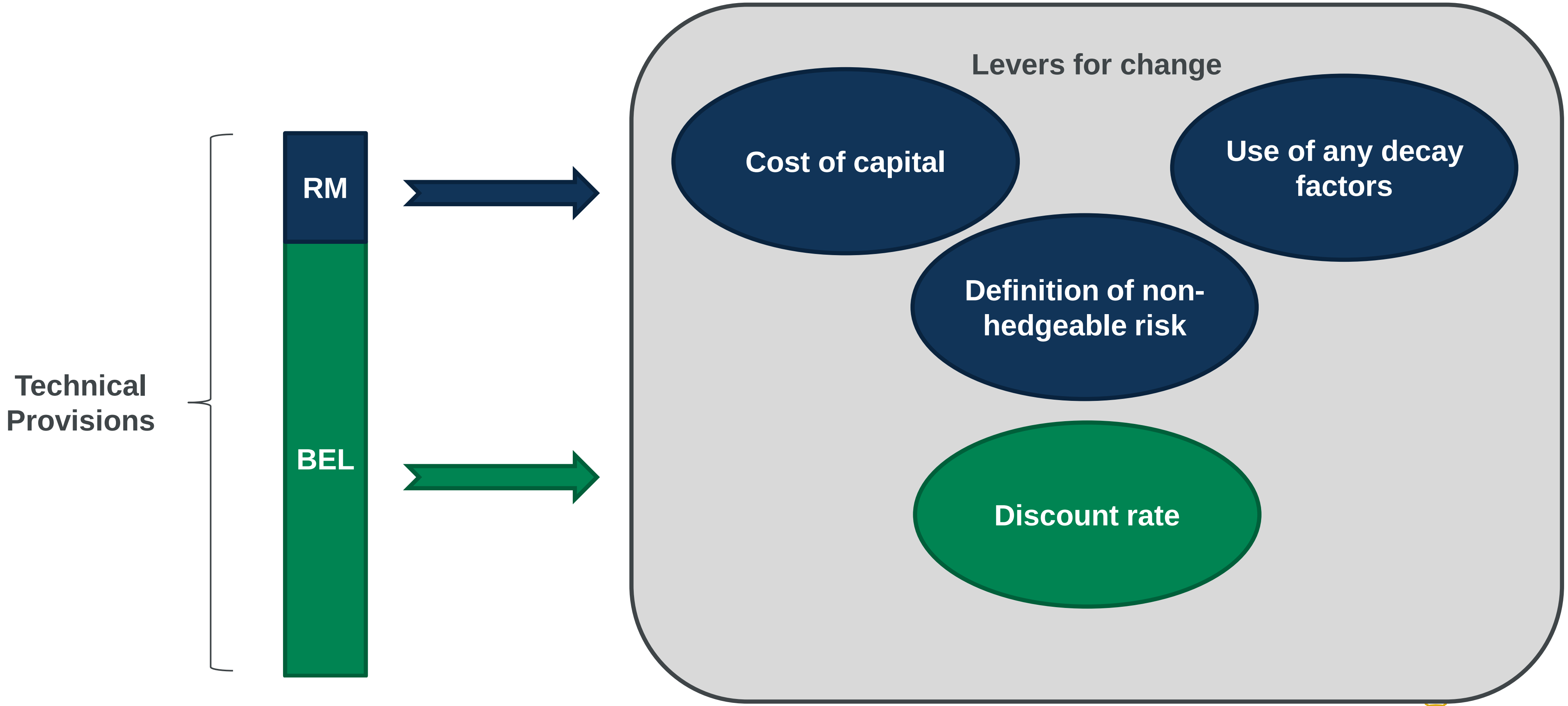
Article 77 (3)

The risk margin shall be such as to ensure that the value of the **technical provisions** is equivalent to the amount that (re)insurance undertakings would be **expected to require** in order to take over and meet the (re)insurance obligations



Institute and Faculty of Actuaries

Transfer value – Solvency II reforms



Trying to calibrate the Technical Provisions based on the concept of a transfer value is inherently challenging

A range of transfer mechanisms

There are a **number** of ways in which life insurance business could change hands:

- **M&A transactions**
- **Bulk annuity deals**
- **Longevity reinsurance**
- **Funded reinsurance**

Each one of these would require the computation of a “transfer value” given that they involve some form of transfer of economic and/or non-economic interest or ownership in the underlying book.

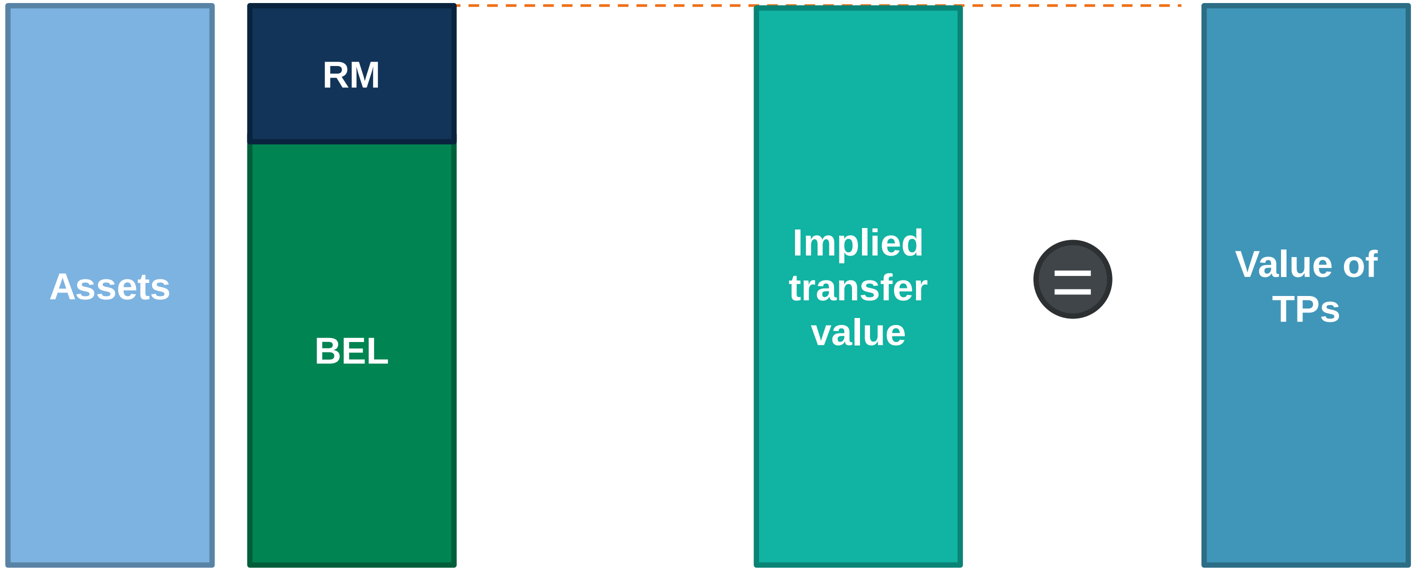
Institute and Faculty of Actuaries

M&A: Transfer value vs technical provisions

Hypothetical scenario where no Own Funds are included in the transaction

Net assets of buyer and seller remain unchanged

Price paid = 0



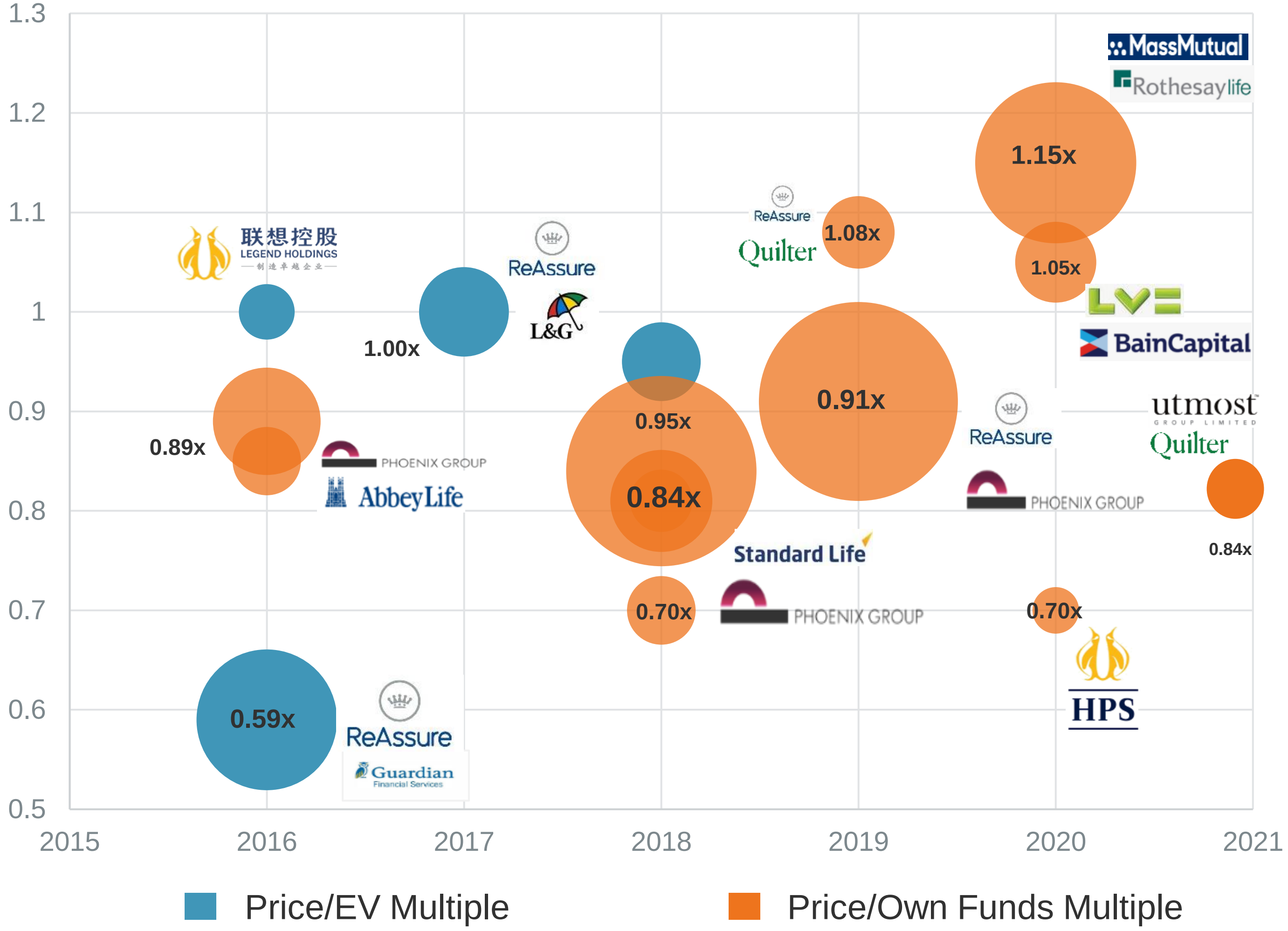
Key Observations

Only the TPs and assets backing the TPs are sold. Net assets remain unchanged and there is no transaction price.

In this scenario, the principles of the "transfer value" as described by the regulations are met, i.e. transfer value equals the value of the TPs

Institute and Faculty of Actuaries

M&A: Multiples of Own Funds in recent UK transactions



- Multiples are calculated as:

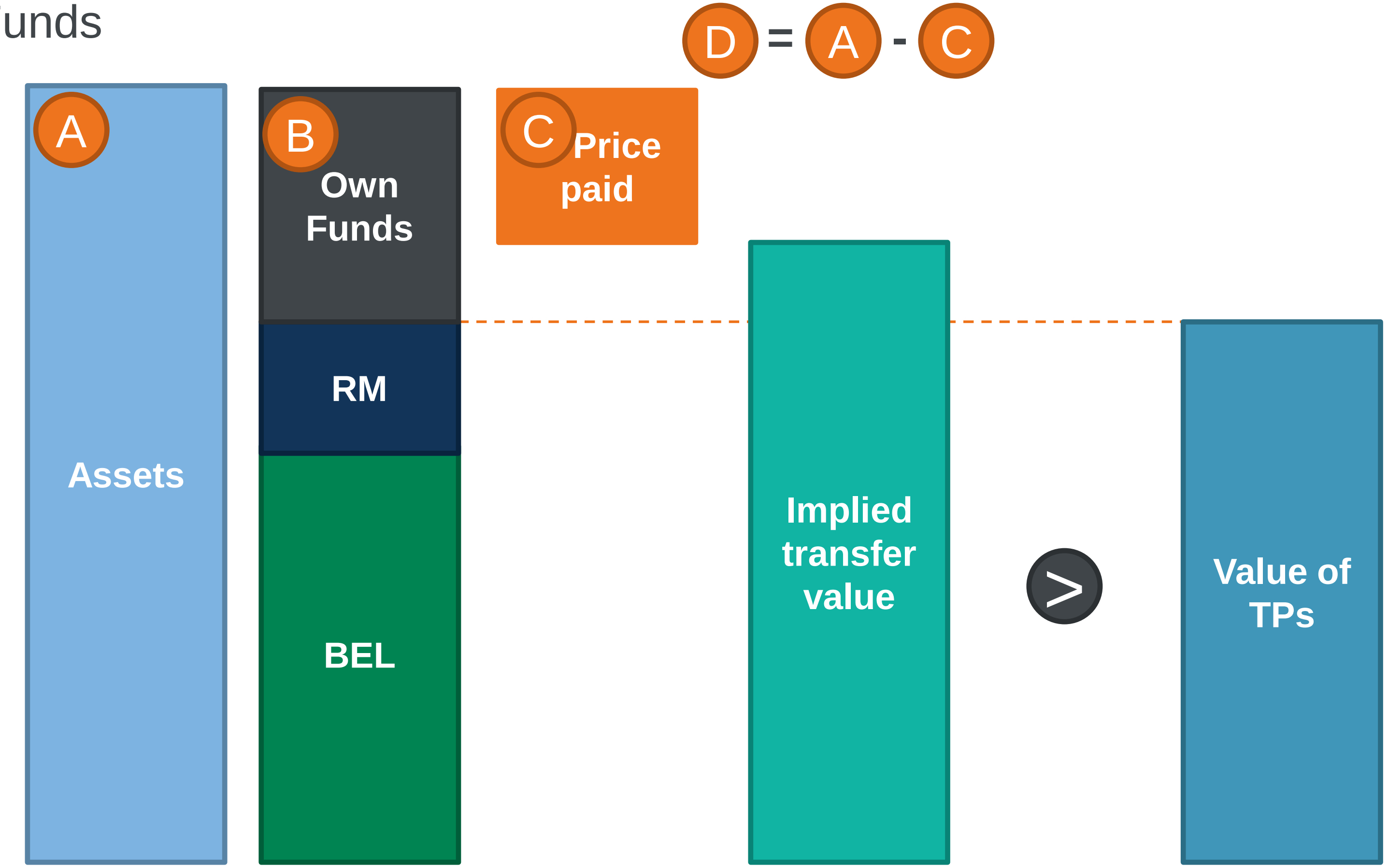
$$\frac{\textit{Transaction price}}{\textit{Own Funds}}$$

- Recent deals traded at a slight premium to OFs
- Larger more complex deals tend to trade at a discount
- There is a range and there are significant impacts from various factors

Institute and Faculty of Actuaries

M&A: Transfer value vs technical provisions (2)

In the case where the transaction includes Own Funds, the price paid will likely not match the value of the Own Funds



Key Observations

- Illustration is based on price paid (C) being less than the OF (B)
- The implied transfer value (D) is the difference between the value of the assets transferring (A) less the price paid (C)
- This leads to a transfer value (D) that is greater than the value of the Technical Provisions

Institute and Faculty of Actuaries

Transfer value vs technical provisions

Level of transfer value vs technical provisions

- The transfer value is driven by the transaction price
- As the transaction price does not often correspond to the value of the OF, the implication is that the **transfer value is often not equal to the Technical Provisions**

Solvency II reforms

- When the Treasury and PRA released their Consultation[1] and Discussion Paper[2] respectively, the aim was to recalibrate the following areas to be a better reflection of observable transfer values
  - Risk Margin
  - Fundamental Spreads used in the Matching Adjustment calculation
- However, doing so was subject to challenge because:
  - Calibrations were based only on longevity risk transfers
  - We will further explore why basing a calibration on transfer values is challenging

[1]April 2022, HMT consultation: 20220328_Review_of_Solvency_II_Consultation.pdf (publishing.service.gov.uk)
[2]April 2022, PRA's Discussion Paper: DP2/22 – Potential Reforms to Risk Margin and Matching Adjustment within Solvency II | Bank of England

Institute and Faculty of Actuaries

M&A deal pricing methodologies

Deal pricing mechanisms have evolved over time with most prevalent metric at present being the DDM

1 Embedded Value

- Starting point for deal pricing (until recently)
- TEV -> EEV -> MCEV
- Post SII, most firms stopped producing EV

2 Modified Own Funds

- Considered when SII came into force
- Focus on a small number of adjustments to regulatory position
- Produces a more economic view of the Own Funds

3 Dividend Discount Model (DDM)

- **Now** commonly used in deal pricing
- Based on the ability to extract the value out of the business through dividends
- Requires projections of both Own Funds and SCR
- Allows for cost of capital and real world upsides

Modified Own Funds

Modified Own Funds attempt to remove some of the regulatory prudence embedded under Solvency II

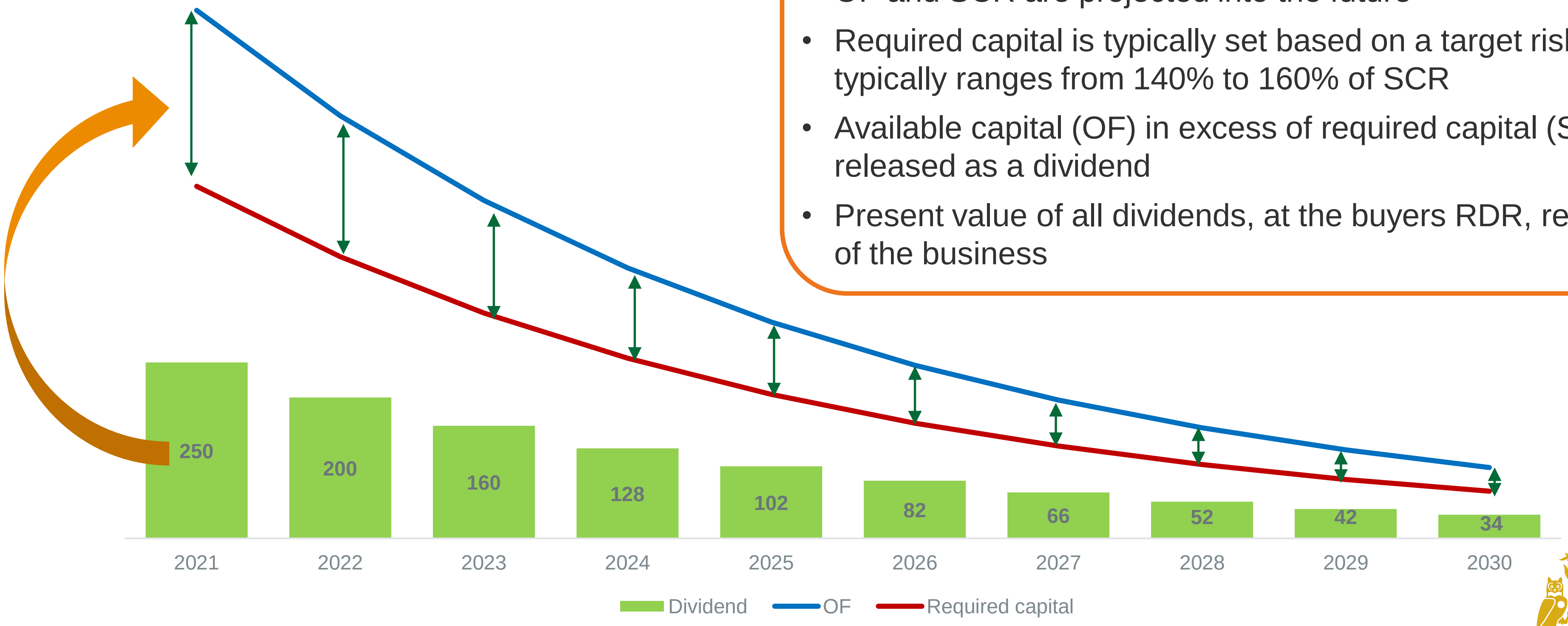
… but Modified SII Own Funds doesn't:

- Reflect buyer's required rate of return as it is a risk neutral measure
- Explicitly allow for cost of capital (could argue Risk Margin does this implicitly)
- Reflect real world returns
- Provide a view of the dividend profile

Institute and Faculty of Actuaries

Discounted dividend model (DDM)

The DDM method requires the Solvency II balance sheet to be projected. The quantum and timing of releases of the Own Funds are valued.



How does it work?

- OF and SCR are projected into the future
- Required capital is typically set based on a target risk appetite – typically ranges from 140% to 160% of SCR
- Available capital (OF) in excess of required capital (SCR multiple) is released as a dividend
- Present value of all dividends, at the buyers RDR, represents the value of the business

Institute and Faculty of Actuaries

Discounted dividend model (DDM) – value drivers

The DDM method requires the Solvency II balance sheet to be projected. The quantum and timing of releases of the Own Funds are valued.

Institute and Faculty of Actuaries

Model portfolio

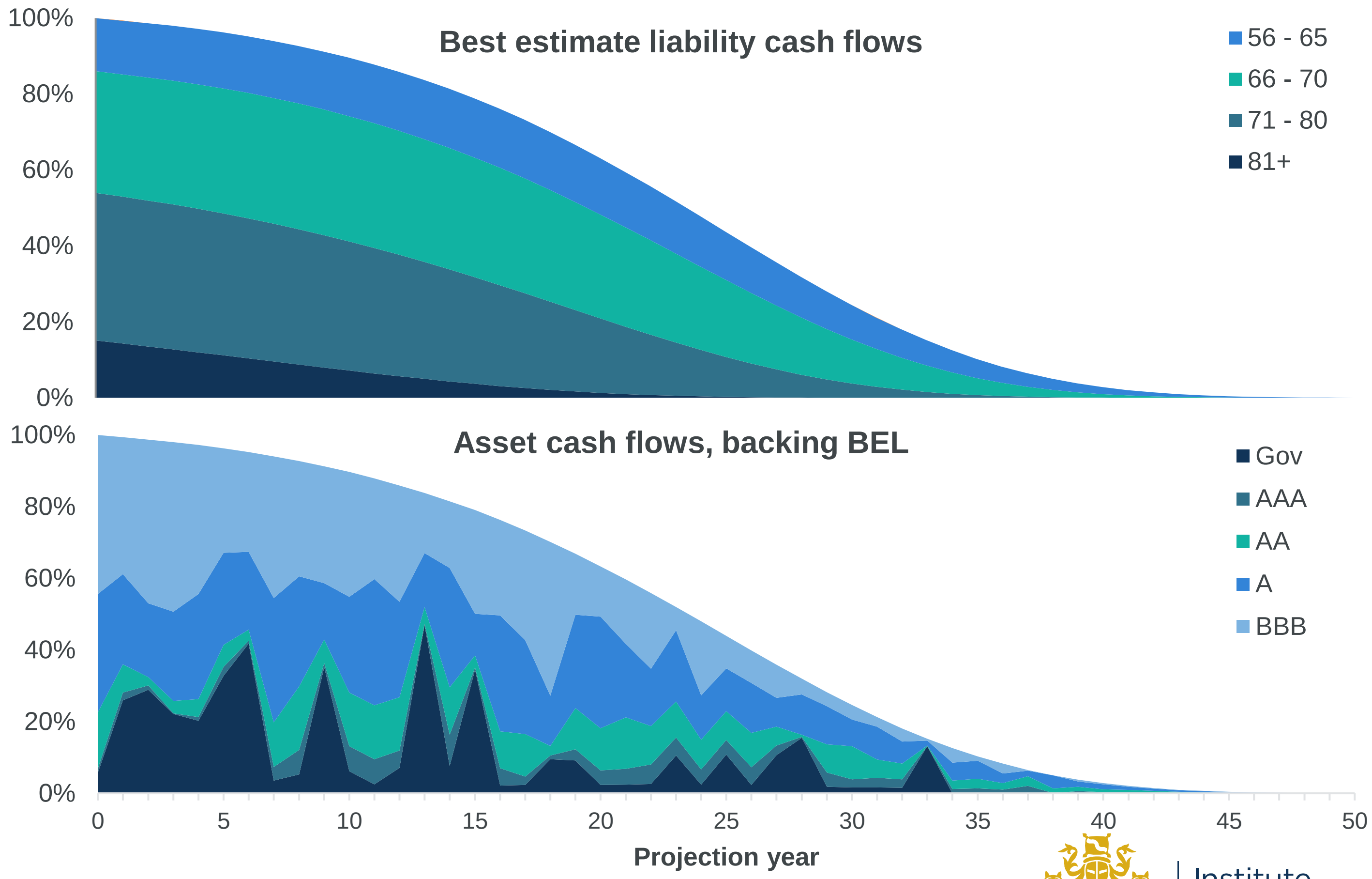
Model portfolio of **annuity liabilities** and backing assets.

Exploratory exercise to assess the use of a DDM in deriving transfer values.

Annuity portfolio split by policyholder age, and **runs off** gradually over time.

Assets perfectly **cash flow match** our annuity liabilities, and mature over the projection period.

We also hold assets in **excess of BEL**, to back our RM, SCR and target buffer.

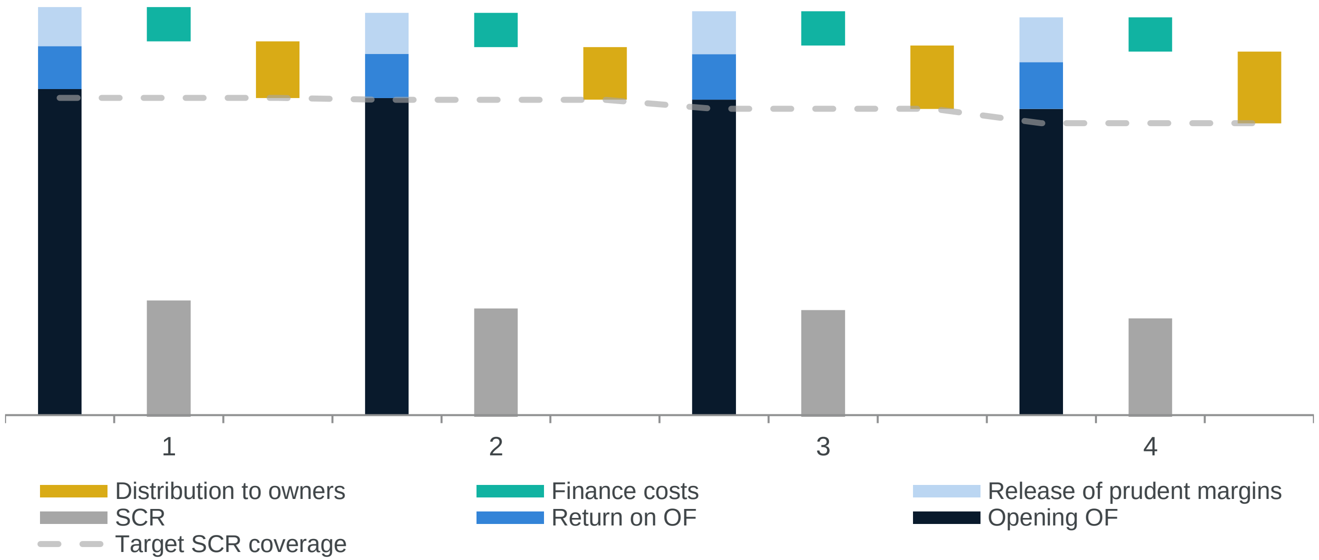


Institute and Faculty of Actuaries

DDM worked examples

Balance Sheet	1	2	3	4
Technical Provisions	153.7	150.6	146.6	142.1
BEL	150.1	147.0	143.2	138.7
RM	3.6	3.5	3.4	3.3
Assets	170.7	167.1	162.8	157.8
Own Funds (SoP)	16.9	16.5	16.2	15.7
Cash Flows				
Return on Own Funds	0.6	0.6	0.6	0.6
Release of prudent margins	0.5	0.4	0.4	0.4
Finance costs	-0.3	-0.3	-0.3	-0.3
Expense synergies	-	-	-	-
Distributions				
Own Funds (EoP) pre-distribution	17.6	17.2	16.9	16.4
Distribution to owners	**1.1**	**1.1**	**1.1**	**1.2**
Own Funds (EoP) post-distribution	16.5	16.2	15.7	15.3
SCR	8.3	8.1	7.9	7.6
Target coverage	200%	200%	200%	200%

…<- PV @ 15% IRR: 8.9

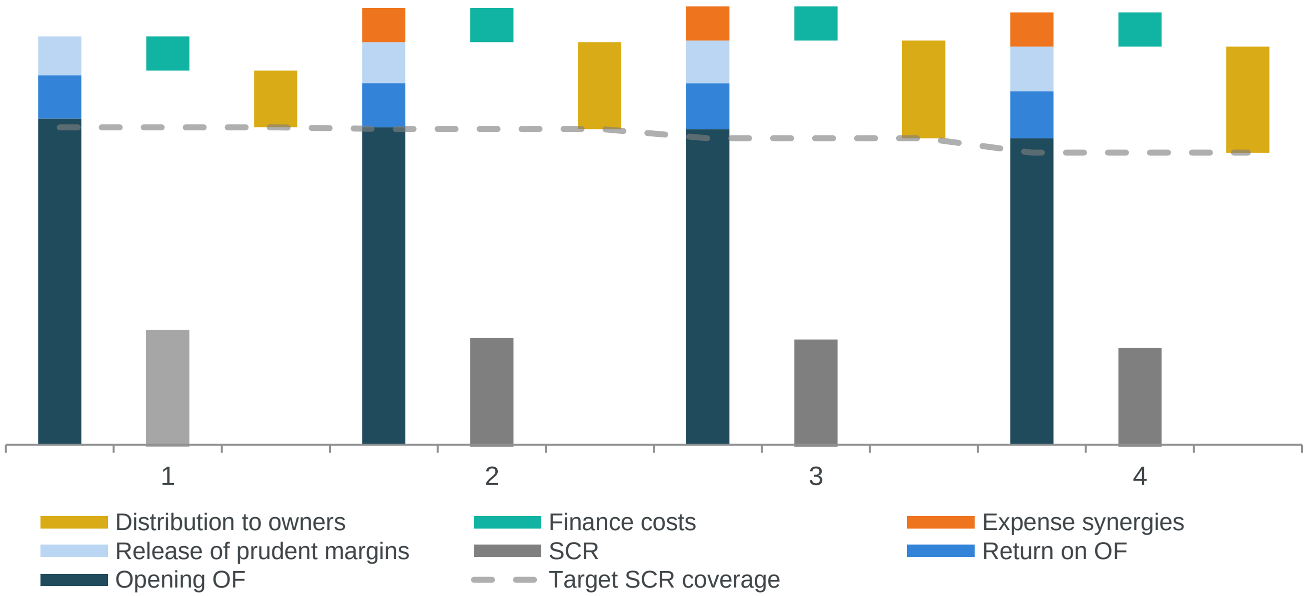


Institute and Faculty of Actuaries

DDM worked examples

Balance Sheet	1	2	3	4
Technical Provisions	153.7	150.6	146.6	142.1
BEL	150.1	147.0	143.2	138.7
RM	3.6	3.5	3.4	3.3
Assets	170.7	167.1	162.8	157.8
Own Funds (SoP)	16.9	16.5	16.2	15.7
Cash Flows				
Return on Own Funds	0.6	0.6	0.6	0.6
Release of prudent margins	0.5	0.4	0.4	0.4
Finance costs	-0.3	-0.3	-0.3	-0.3
Expense synergies	-	0.3	0.3	0.3
Distributions				
Own Funds (EoP) pre-distribution	17.6	17.5	17.2	16.7
Distribution to owners	**1.1**	**1.4**	**1.4**	**1.5**
Own Funds (EoP) post-distribution	16.5	16.2	15.7	15.3
SCR	8.3	8.1	7.9	7.6
Target coverage	200%	200%	200%	200%

…<- PV @ 15% IRR: 10.2



Institute and Faculty of Actuaries

Sensitivities

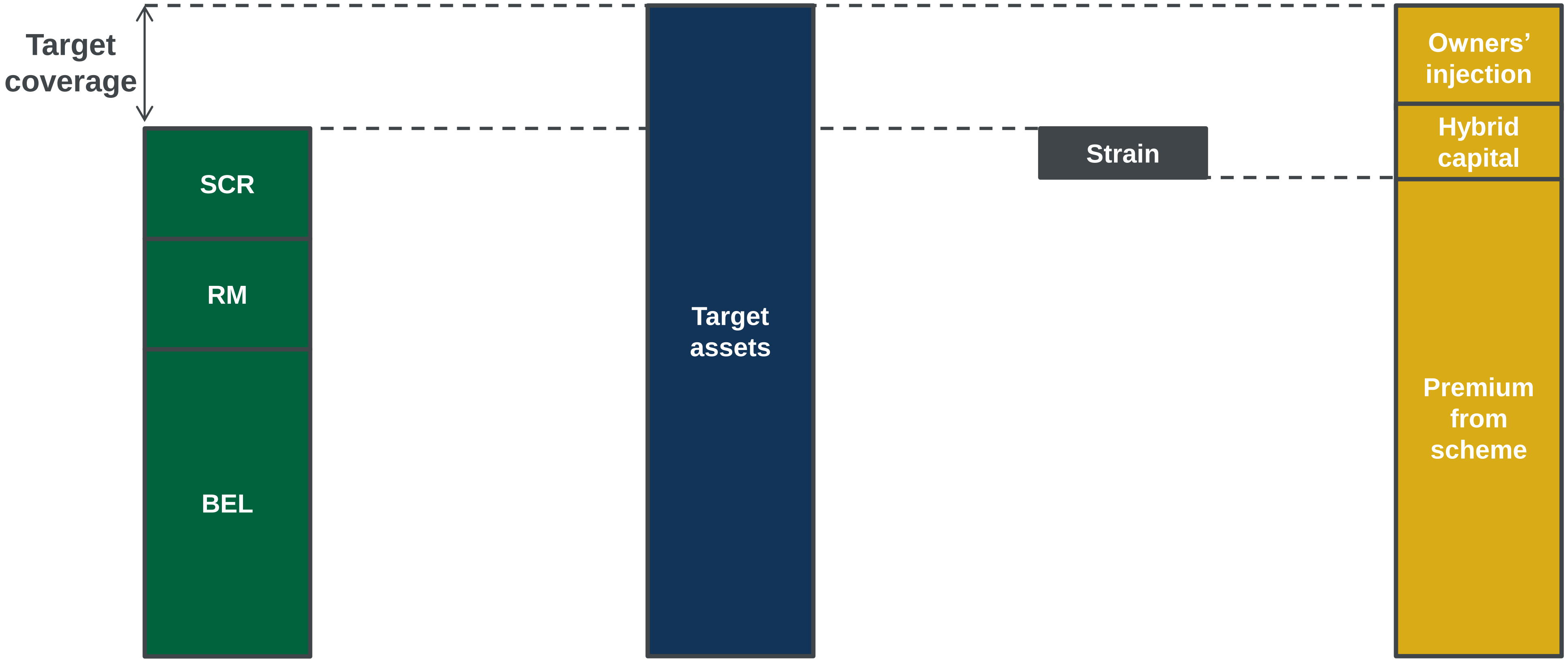
By adjusting the input variables, we can use the model to derive the **valuation** under various scenarios:

Scenario	Valuation
Base	8.9
Expense synergies	10.2
Increased finance costs	5.4
IRR +2.5%	7.6
IRR -2.5%	10.6

Institute and Faculty of Actuaries

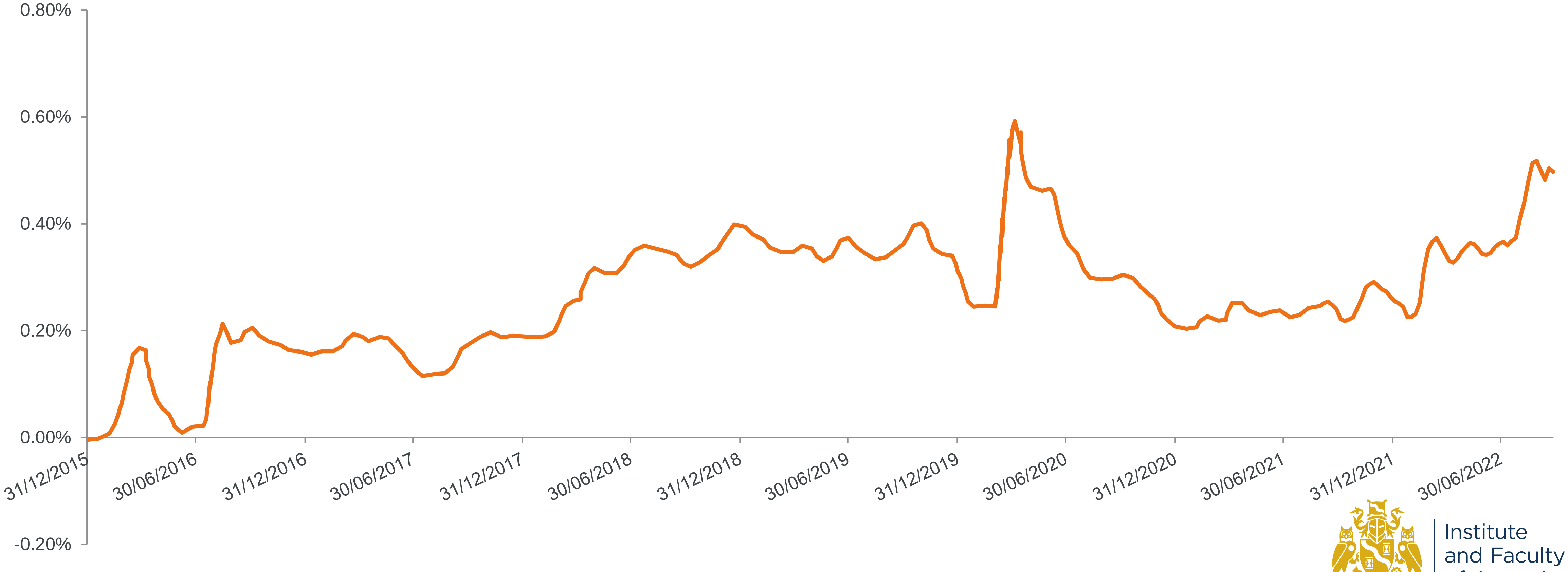
Bulk annuity deal

From the **owners' injection, hybrid capital** and **target coverage**, we can derive the **premium received**.



Historical bulk annuity pricing

LCP has published historical "**transfer values**" for BPA transactions, expressed under a "gilts plus" approach:

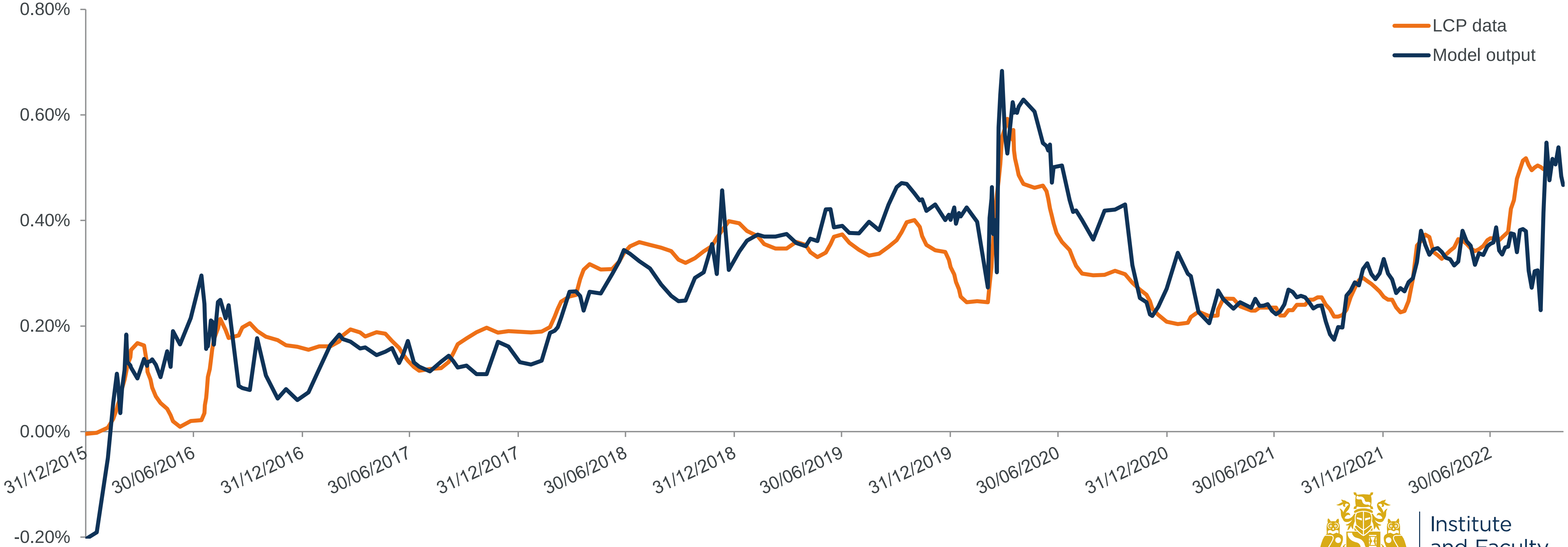


Source: LCP – De-risking report 2022

Institute and Faculty of Actuaries

Deriving the transfer value

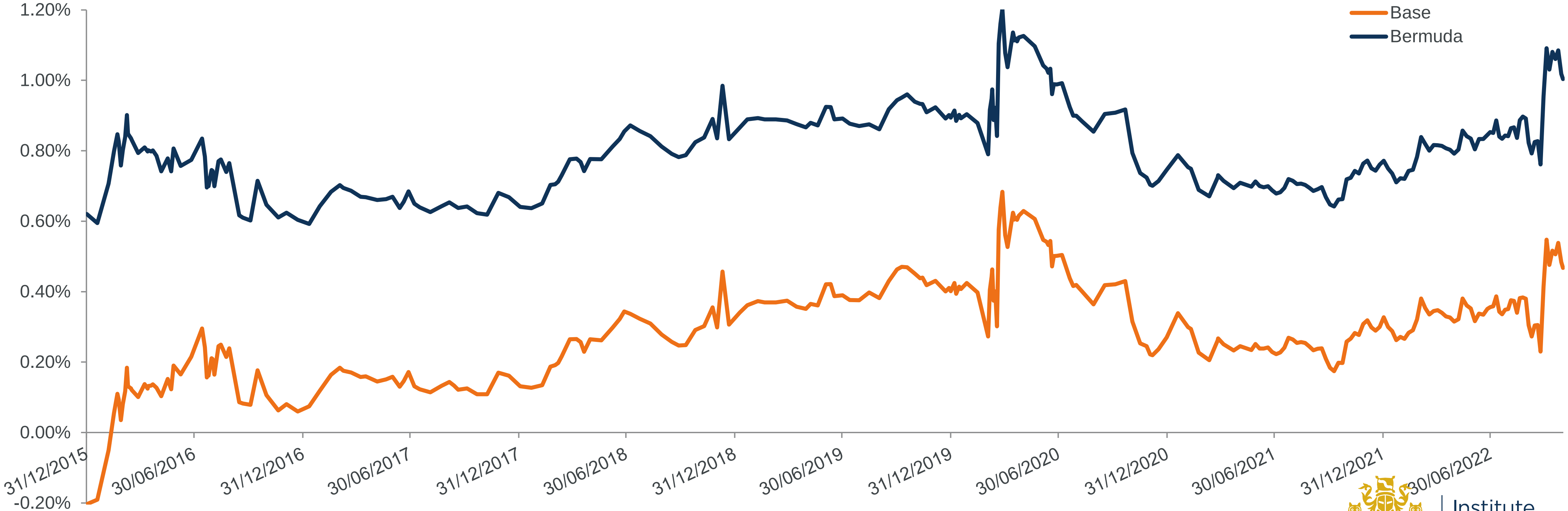
We used our illustrative model to calculate the **transfer value** of our model annuity portfolio through time:



Institute and Faculty of Actuaries

The transfer window

We calculated the transfer value under a scenario in which the business is transferred to a **Bermudian** insurer:

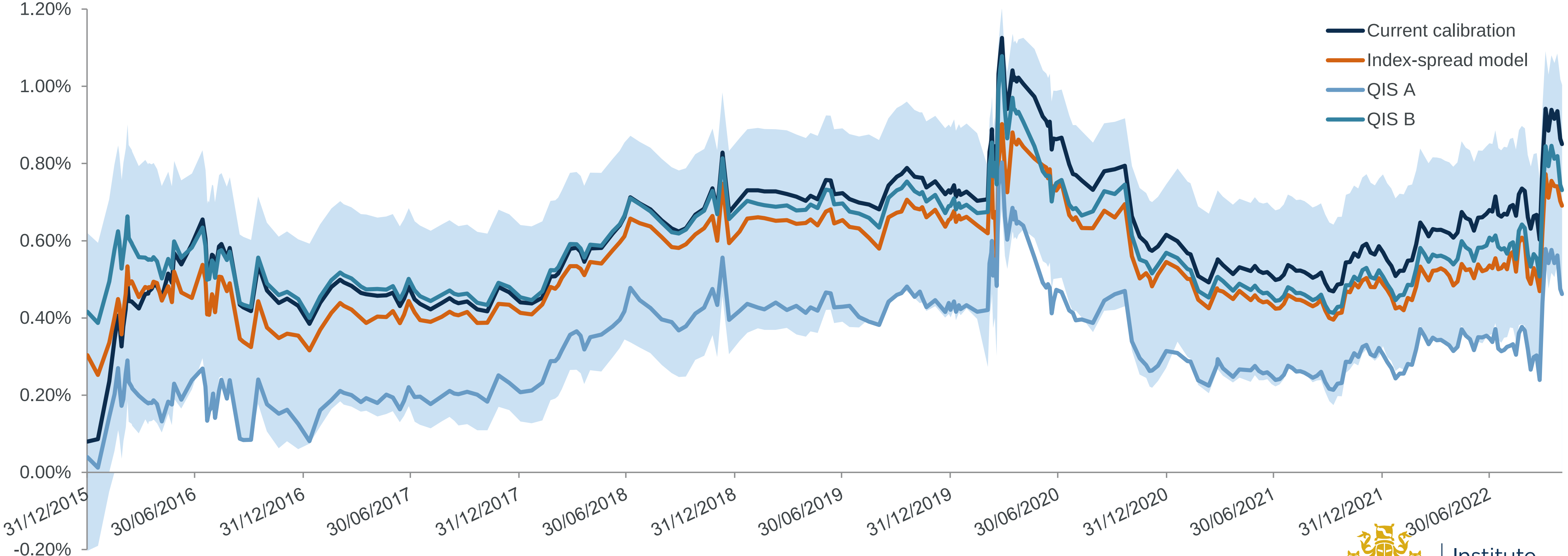


Source: https://marketinsights.natwest.com/s/shared-article?a=MWkwMDAwMDBVTllSQUE0

Institute and Faculty of Actuaries

Technical provisions

Per our illustrative model, four potential calibrations of the technical provisions appear to sit within our “window”:



Institute and Faculty of Actuaries

So what?

Transfer values:

- Linked to derivation of the transaction price/price paid, can be derived in a number of ways
- Will be highly idiosyncratic and reflects details specific to particular deals
- Therefore can take a potentially wide range of answers

Solvency II reforms:

- Treasury’s response to the consultation is one of pragmatism around the changes to MA
- Argument for recalibrating the TP components to observable transfer values is presumed to fall away
- The Treasury will review whether the FS remains appropriate in 5 years’ time
- **So the question is, might we see a revisit of the recalibration of Technical Provisions in line with observable transfer values?**

Questions

Comments

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenter.

Institute and Faculty of Actuaries

Disclaimers

This material is intended for your sole use and is provided to you on the understanding that, before entering into any transaction referred to in this material, and/or any related transaction (together, the "Transaction"), you will ensure that you fully understand the potential risks and return of the Transaction and determine whether the Transaction is appropriate for you given your objectives, experience, financial and operational resources, and other relevant circumstances. Nothing in this material constitutes an offer or invitation to enter into any engagement or transaction or an offer or invitation for the sale, purchase, exchange or transfer of any securities or a recommendation to enter into any transaction, nor is it intended to form the basis of any investment decision. None of NatWest Markets Plc, NatWest Markets N.V. (and/or any branches), NatWest Markets Securities Inc. and/or their affiliates ("NatWest Markets") is soliciting any specific action based on this material. The material does not take into account the particular investment objectives, financial conditions, or needs of individual clients or whether any transaction is suitable for any particular investor. The remuneration of the author(s) is not directly tied to any transactions performed, or trading fees received, by any entity of the NatWest Group, for example, through the use of commission-based remuneration arrangements.

This material has been prepared by NatWest Markets and has not been prepared in accordance with the legal and regulatory requirements designed to promote the independence of investment research, and is not subject to any prohibition on dealing ahead of its dissemination. Any views expressed may differ from those of other business units of NatWest Markets. The opinions, commentaries, forecasts, assumptions, estimates, derived valuations and target price(s) or other statements contained in this communication (the "Views") are valid as at the date and/or time indicated and are subject to change at any time without prior notice. NatWest Markets does not undertake to update you of such changes. Views expressed herein are not intended to be, and should not be viewed as advice or as a personal recommendation. The Views may not be objective or independent of the interests of the authors or other NatWest Markets trading desks, who may be active participants in the markets, investments or strategies referred to in this material. NatWest Markets will not act and has not acted as your legal, tax, regulatory, accounting or investment adviser; nor does NatWest Markets owe any fiduciary duties to you in connection with the Transaction and no reliance may be placed on NatWest Markets for investment advice or recommendations of any sort. You should make your own independent evaluation of the relevance and adequacy of the information contained in this document and make such other investigations as you deem necessary including obtaining independent financial advice, before participating in any transaction in relation to the securities referred to in this document. This material is not intended for distribution to, or use by any person or entity in any jurisdiction or country where such distribution or use would be contrary to local law or regulation. The information contained herein is confidential and may not be given (in whole or part) or otherwise distributed to any other third party without the prior written consent of NatWest Markets.

NatWest Markets and its affiliates, connected companies, employees or clients may have an interest in financial instruments of the type described in this material and/or in related financial instruments giving rise to potential conflicts of interest which may impact the performance of such financial instruments. Such interests may include, but are not limited to, (a) dealing in, trading, holding or acting as market-maker or liquidity provider in such financial instruments and any reference obligations; (b) entering into hedging strategies on behalf of issuer clients and their affiliates, investor clients or for itself or its affiliates and connected companies; and (c) providing banking, credit and other financial services to any company or issuer of securities or financial instruments referred to herein. NatWest Markets and its affiliates, connected companies, employees or clients may at any time acquire, hold or dispose of long or short positions (including hedging and trading positions) which may impact the performance of a financial instrument.

This material may relate to over-the-counter derivatives ("OTC Derivatives") in which case you should be aware that OTC Derivatives can provide benefits but may also involve a variety of significant risks. All OTC Derivatives involve risks which include (among other things) the risk of adverse or unanticipated market, financial or political developments, risks relating to the counterparty, liquidity and other risks of a complex character. In the event that such risks arise, substantial costs and/or losses may be incurred and operational risks may arise in the event that appropriate internal systems and controls are not in place. Therefore you should also determine whether OTC Derivatives are appropriate for you given your objectives, experience, financial and operational resources, and other relevant circumstances.

If you enter into an OTC Derivative transaction and decide to close out the transaction, or the transaction otherwise terminates before its scheduled termination date, you may have to pay break costs. These will be calculated by reference to prevailing market conditions and include any costs incurred by NatWest Markets in terminating any related financial instrument or trading position. Please note that such break costs can be substantial. If you enter into an OTC Derivative transaction for the purposes of hedging a loan or other debt and you subsequently wish to repay the debt (whether through refinancing or otherwise), you should be aware that it may be necessary for NatWest Markets to terminate the hedging transaction before its scheduled termination date and satisfy any liabilities that you may have to it with respect to such transaction (including break costs) before NatWest Markets will release any related security that you have provided to it.

This material has been prepared for information purposes only, does not constitute an analysis of all potentially material issues and is subject to change at any time without prior notice. NatWest Markets does not undertake to update you of such changes. It is indicative only and is not binding. Other than as indicated, this document has been prepared on the basis of publicly available information believed to be reliable but no representation, warranty, undertaking or assurance of any kind, express or implied, is made as to the adequacy, accuracy, completeness or reasonableness of this material, nor does NatWest Markets accept any obligation to any recipient to update, correct or determine the reasonableness of such information or assumptions contained herein. NatWest Markets and each of its respective affiliates accepts no liability whatsoever for any direct, indirect or consequential losses (in contract, tort or otherwise) arising from the use of this material or reliance on the information contained herein. However this shall not restrict, exclude or limit any duty or liability to any person under any applicable laws or regulations of any jurisdiction which may not lawfully be disclaimed.

In the U.S., this material, to the extent it relates to securities, is intended for distribution only to major institutional investors as defined in Rule 15a-6 of the U.S. Securities Exchange Act of 1934 as amended (excluding documents produced by our affiliates within the U.S.). This material is not intended as an offer or the solicitation of an offer to buy or sell securities as defined under U.S. securities laws.

Notwithstanding the foregoing (but subject to any applicable federal or state securities laws), NatWest Markets and the recipient may disclose to any and all persons, without limitation, the tax treatment and tax structure of any transaction contemplated hereby and all materials (including opinions or other tax analyses) relating thereto. IRS Circular 230 Disclosure: NatWest Markets does not provide tax advice. Accordingly, any discussion of U.S. tax matters contained herein (including any attachments) is not intended or written to be used, and cannot be used, in connection with the promotion, marketing or recommendation by anyone unaffiliated with NatWest Markets of any of the matters addressed herein or for the purpose of avoiding U.S. tax-related penalties.

NatWest Markets Plc is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and Prudential Regulation Authority and is provisionally registered as a swap dealer with the United States Commodity Futures Commission. NatWest Markets N.V. is incorporated with limited liability in the Netherlands, authorised and regulated by De Nederlandsche Bank and the Autoriteit Financiële Markten. It has its seat at Amsterdam, the Netherlands, and is registered in the Commercial Register under number 33002587. Registered Office: Claude Debussylaan 94, Amsterdam, the Netherlands. Branch Reg No. in England BR001029. Agency agreements exist between different members of NatWest Group. Securities business in the United States is conducted through NatWest Markets Securities Inc., a FINRA registered broker-dealer (http://www.finra.org), a SIPC member (www.sipc.org) and a wholly owned indirect subsidiary of NatWest Markets Plc. NatWest Markets Securities Inc. is authorised by NatWest Markets Plc to act as its agent for certain kinds of its activities.

Institute and Faculty of Actuaries

Institute
and Faculty
of Actuaries

Thank you

#LifeConf