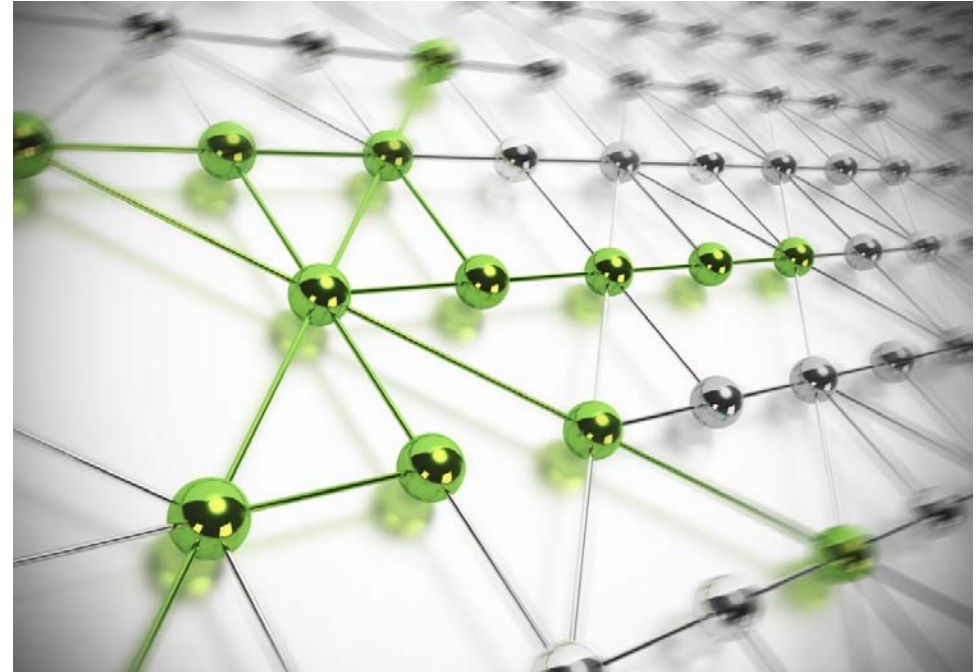


Determination of discount rates for Insurance Capital Standard

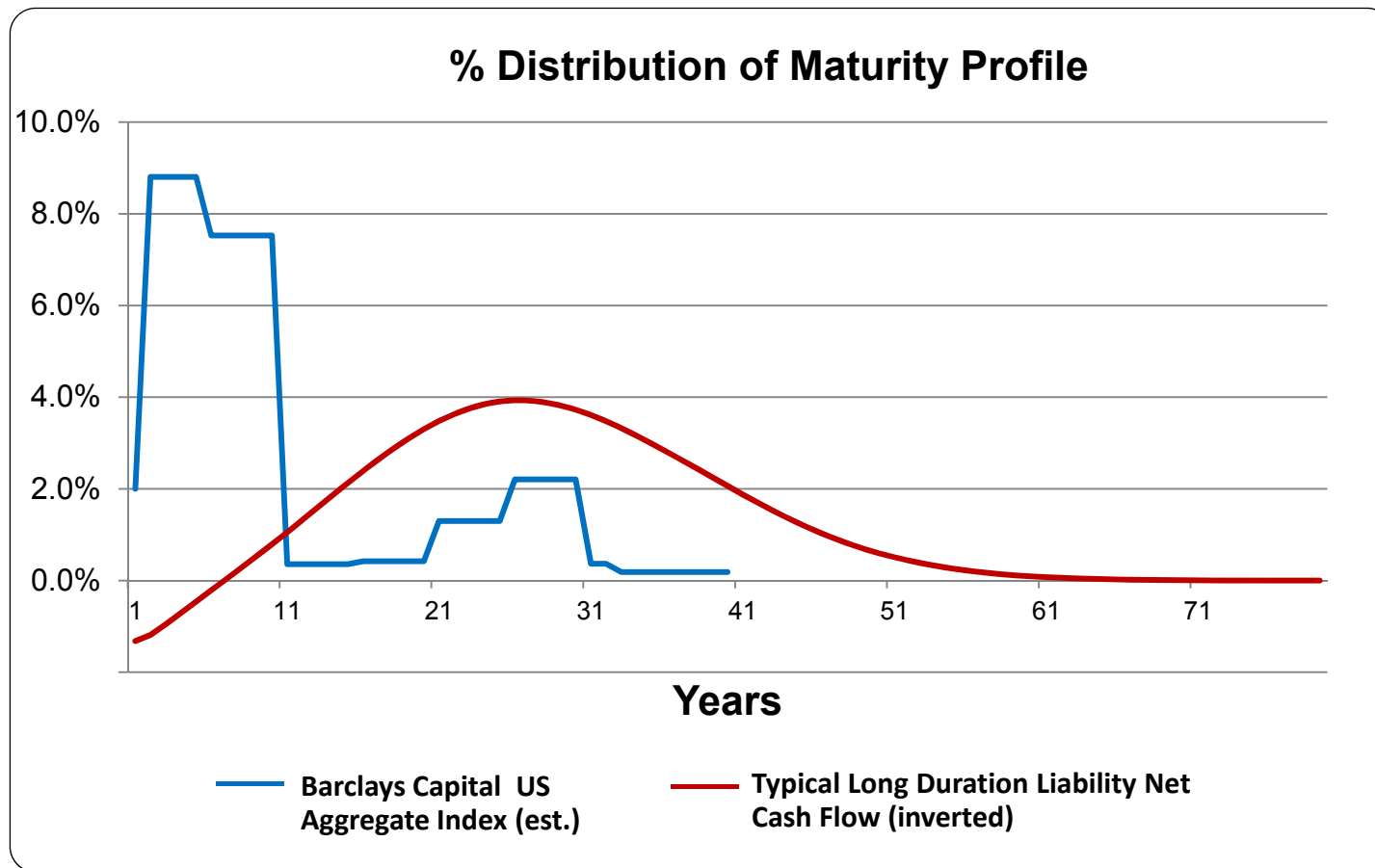
Halina von dem Hagen
IAIS Stakeholder Meeting
Los Angeles, February 5, 2015



Executive Summary

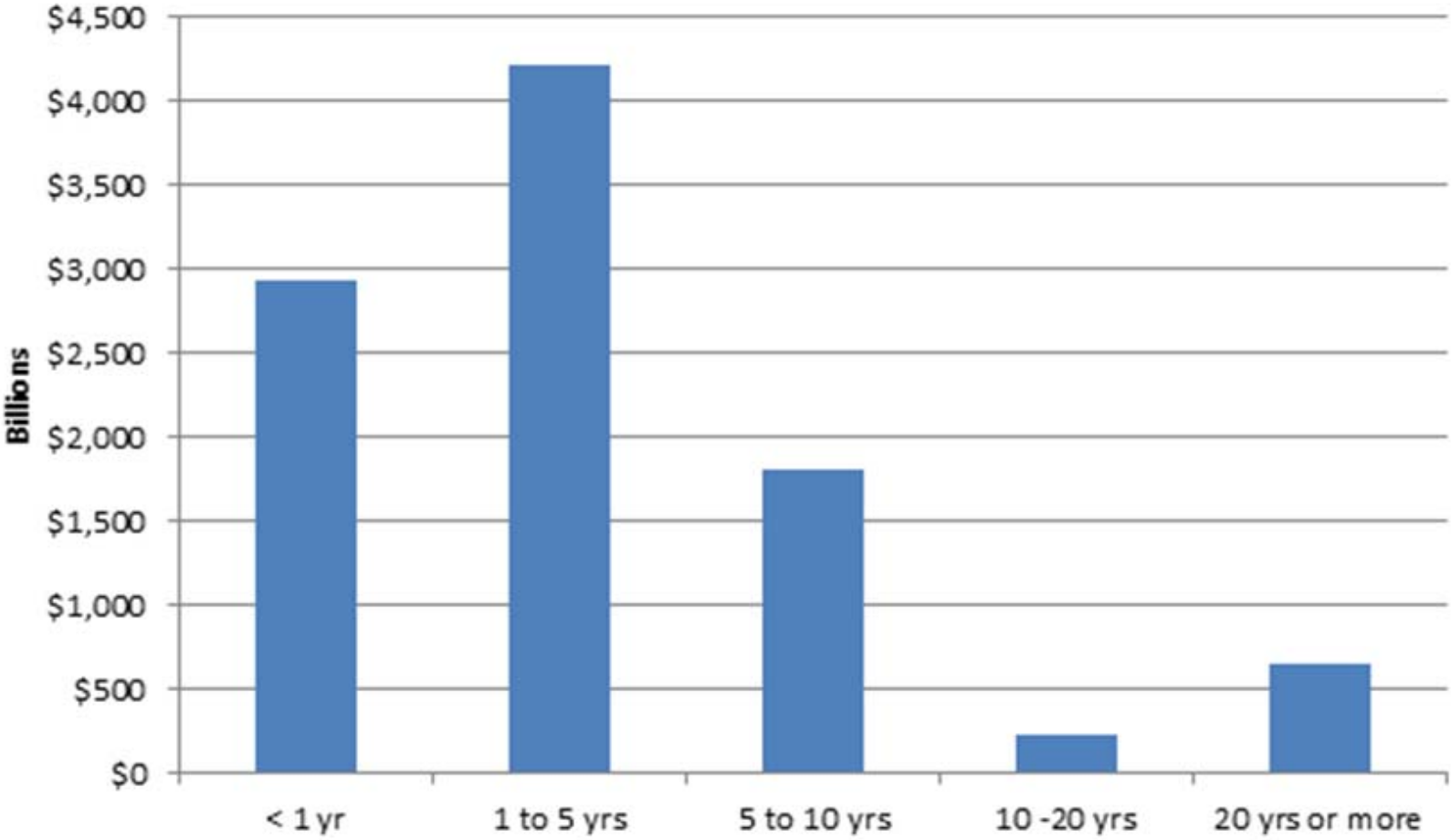
- Choice of discount rate is among the most important decisions impacting the level and behaviour of the insurance capital metric
- Beyond deep and liquid markets, observable rates are not reliable or do not exist at all – need to be constructed
- Small changes in the long-term discount rate cause large movements in reserves for companies offering significant long term products
 - These reserve movements are only partly offset by asset movements as availability of matching long-term fixed income assets is often limited
- Volatility of reserves would result in volatile and misleading capital ratios
- “3-bucket approach” proposed for the construction of the discount curve based on principles to be consistently applied across jurisdictions:
 1. Bucket #1: Use market rates in “Deep and Liquid” markets
 2. Bucket #2: Grade
 3. Bucket #3: Determine stable long-term rate
- Specific discount rate choices will have public policy implications

The investment challenge: Liabilities are often longer than available fixed income assets



Note: While the U.S. data are used, analysis is relevant for other markets offering long-term products.

Maturity distribution of US Government debt: Supply of long-term fixed income is limited



Source: Monthly Bulletin issued by US Department of the Treasury; December 2014

Fixed income supply limitations compel insurers to back long duration liabilities with non-fixed income assets

Earnings impact of an XX bps change in discount rates

$$= \$ \text{Reserves} * \text{Duration} * \text{XX bps change}$$

For example, \$50bn * 20 years * 10bps = **\$1 billion**

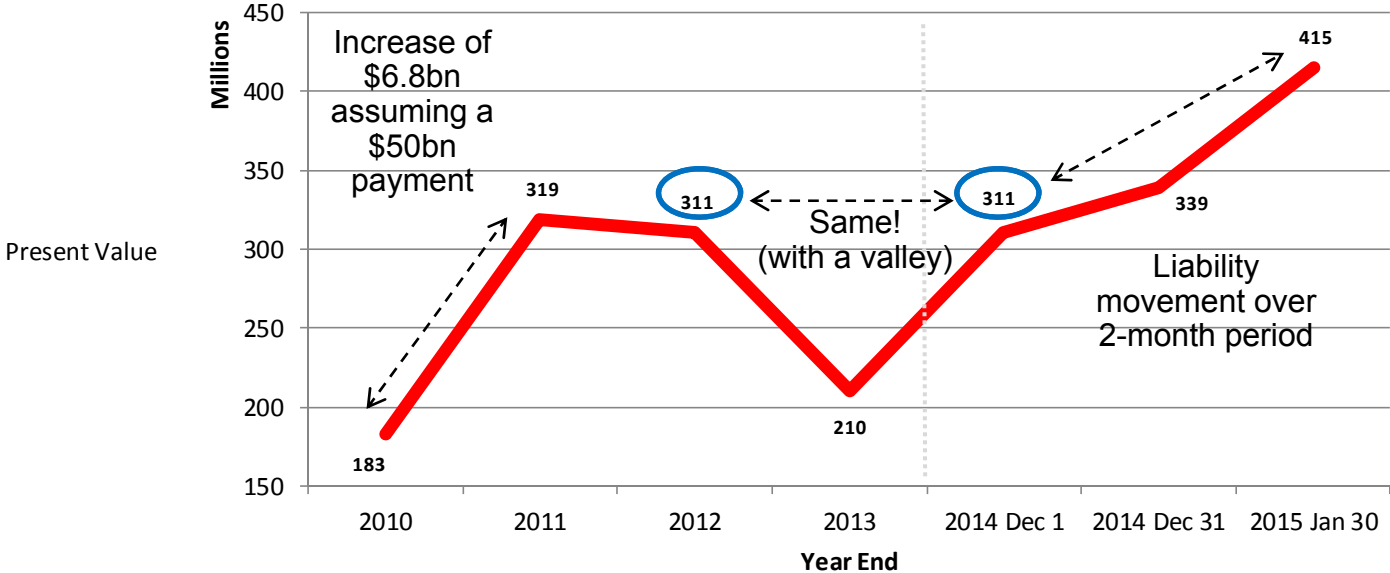
- Changing asset prices could offset the reserve movement BUT in longer durations there are not enough fixed income matching assets, and prices of non-fixed income assets do not move in tandem with interest rates
- If the long-term rate is extrapolated from current markets, ongoing market gyrations will destabilize capital and prompt hasty action although a path of returns over the next several decades is unpredictable

Small discount rate movements could create excessive earnings and capital volatility

Example: Assume a \$1bn payment due in 40 years discounted at the actual year-end 30yr US Treasury Yield

% change in Present Value over prior period

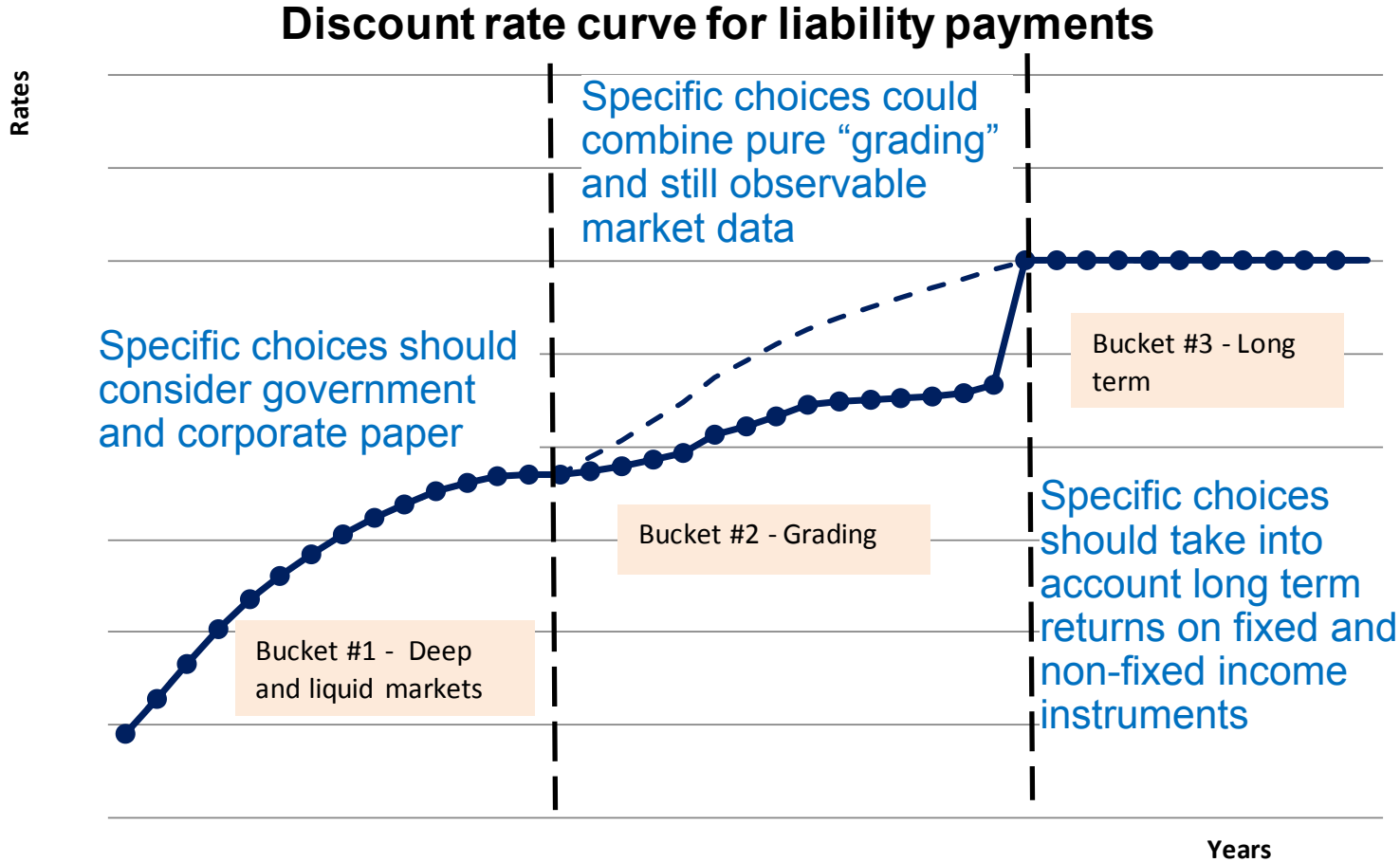
- 74% -2% -33% 48% 9% 22%



— Present Value of \$1bn payment 40yrs later

Discount rate choices can introduce spurious volatility misleading regulators and other stakeholders as to the long-term financial solvency of an insurer and prompting management to take unwarranted action

Proposal: 3-bucket approach to the construction of discount rate curve



Discount rate choices have important public policy implications

- Approach consistent with insurance business model would use the rate consistent with asset strategies of a company
- If a more prescriptive approach preferred
 - **Bucket 1 “Deep and liquid markets”**: the rate should reflect a reasonable portfolio of assets equivalent to an acceptable credit quality
 - In North America, companies use a mix of government and corporate fixed income
 - **Discount rate choices will influence investments: government debt vs. corporates**
 - **Bucket 2 “Grading”**: relatively short as market signals are no longer reliable
 - Can consider combining pure grading with some still observable market data
 - **Bucket 3: “Long-term”**: the rate needs to be constructed
 - Critical choice for volatility of reported capital
 - **Even small movements would impact viability of long-term products and hence long-term investments, including in non-fixed assets such as infrastructure**
 - Should be a stable view through a long cycle with modest adjustments over time
- This approach may be acceptable also to IASB for IFRS 4 Phase II

Summary of Key Themes

- Discount rate determination will influence investment choices of companies and will impact the viability of long term insurance products
- Excessive reliance on “markets” where their signals are not reliable could destabilize reported capital and encourage inappropriate action

Thank you

