How does an underwriter view longevity risk?

Kevin O'Regan
Head of Longevity Reinsurance, PartnerRe

October 12, 2010
What is Longevity risk?

Longevity risk is

“the risk that people live longer than expected”

It is a long duration, systemic risk

One of four risks limited by the PartnerRe Board
Controlling the risks

Idiosyncratic Risk
- Starting mortality rates
- Deal specific
- Diversifiable

Systemic Risk
- Future improvements
- Aggregates across all deals
Historic underestimation of improvements

Actual and Projected Period Life Expectancy at Birth: Males

- Red: Actual
- 1975
- 1979
- 1983
- 1987
- 1991
- 1996
- 2000
- 2004

PartnerRe
Controlled framework for risk

Extreme Scenario

Age 85

- Flat Earth
- Best Est
- Slow Cancer
- Fast Cancer
- Circulatory
- Historic
- Metric

PartnerRe
Controlled framework for risk

Contractual limits where possible, otherwise “maximum loss” approach

Exposure metric defined

Aggregate limit % economic capital base

Utilization monitored quarterly, and with each new deal
Underwriting approach

Deal qualification

Understand the block, stable, seasoned, clean
Each quote built on data analysis, test against our basis

Pricing

Level and Shape
Improvements

Structuring/negotiating

Operational risk, credit risk

October 12, 2010

How does an underwriter view longevity risk?
Questions