

**somewhat
different**

The Increasingly Critical Role of Data

Today & Looking Forward

Reinsurance Administration Professionals Associate

2011 Fall Meeting

Nashville, TN

Agenda

- ▶ Consolidation – Increasing Size & Complexity of Companies

- ▶ Indicative Lessons
 - Business Mix

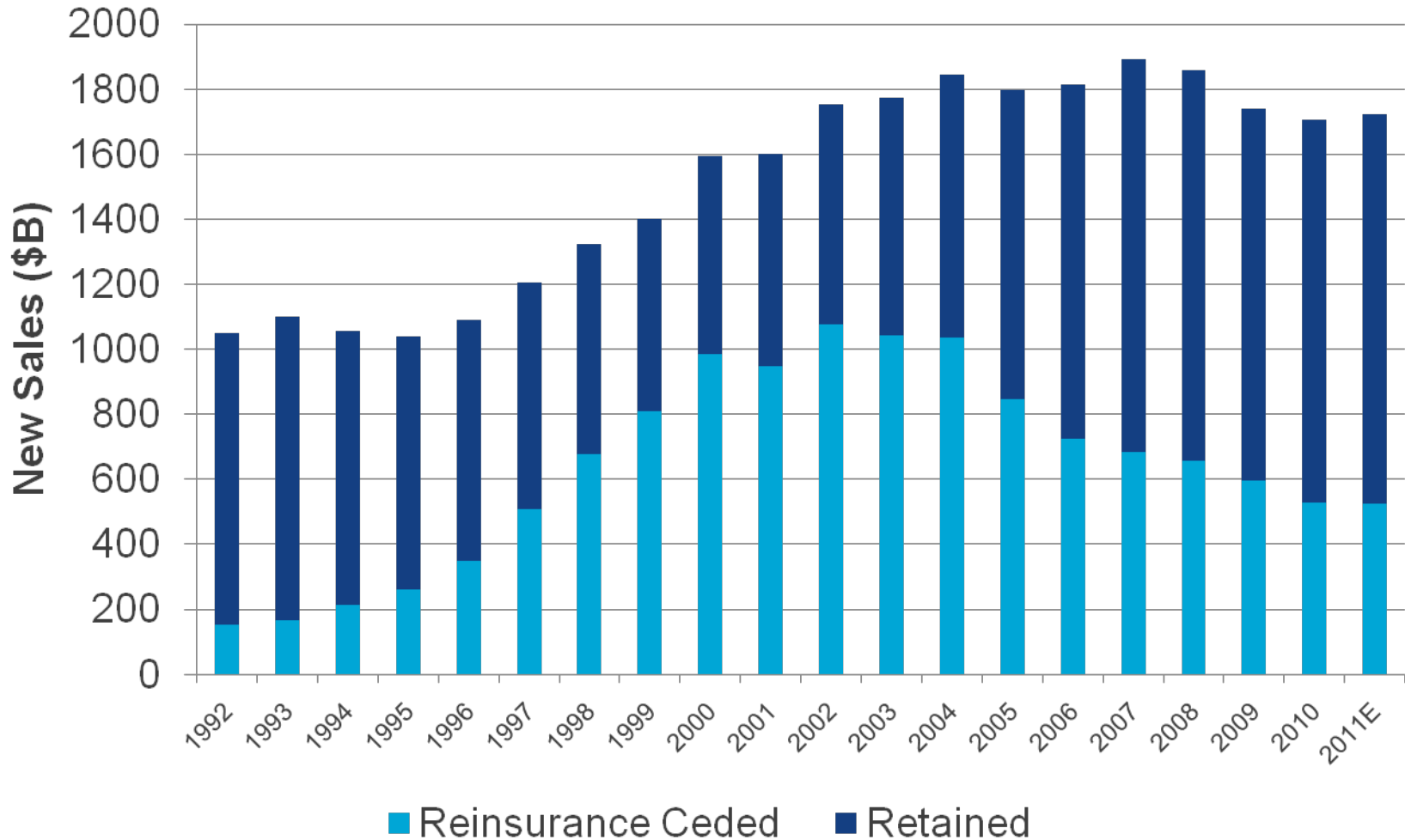
 - Key Mortality Dynamics

 - Post Level Term

- ▶ Looking Forward: Changing Regulatory Framework

CONSOLIDATION OF THE LIFE & LIFE RE INDUSTRY

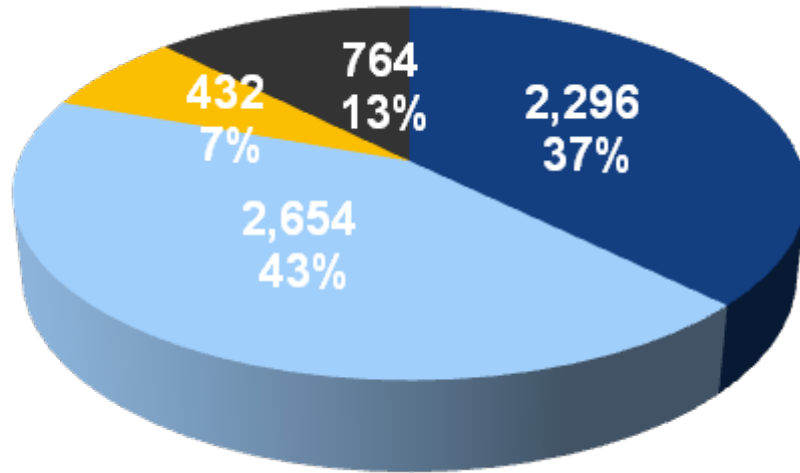
The Largest Life Reinsurance Market Continues to Shrink



Market Consolidation to Large Global Players

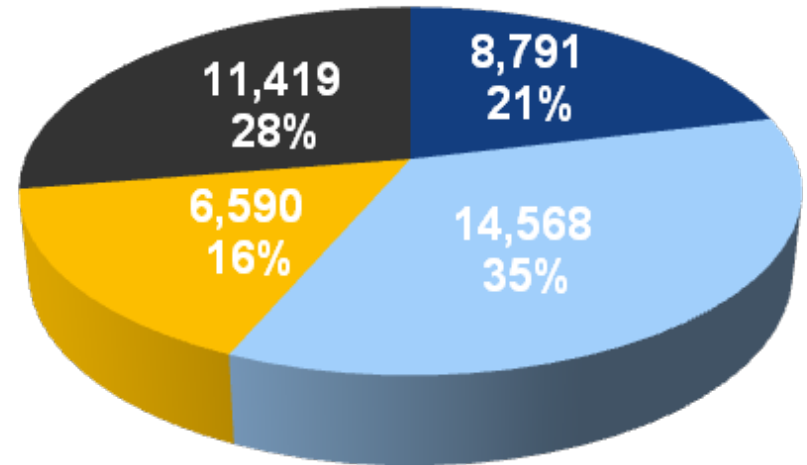
	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
Active Reinsurers															
Swiss Re											Lincoln			Life Re	M&G
RGA		ING Re (Group)							Allianz Re						
Generali									BMA						
Munich												CNA Re			
Hannover			ING Re (via SCT)												
SCOR	TARe		XL Life Re			Revios									
Berkshire Hathaway		Sun Life Retro												Gen Re	
Inactive Reinsurers															
ERC											AUL		Phoenix		
Scottish Re								ING Re (Indiv)	Phoenix via ERC						
New Entrants															
						ACE (Inact)		Wilton Re						Scottish (Inact)	
						XL Life (Inact)								A&L Re (Inact)	

Hannover Life Re US Administration Organic Business, Acquired ING/Scottish, Scottish Re ASA



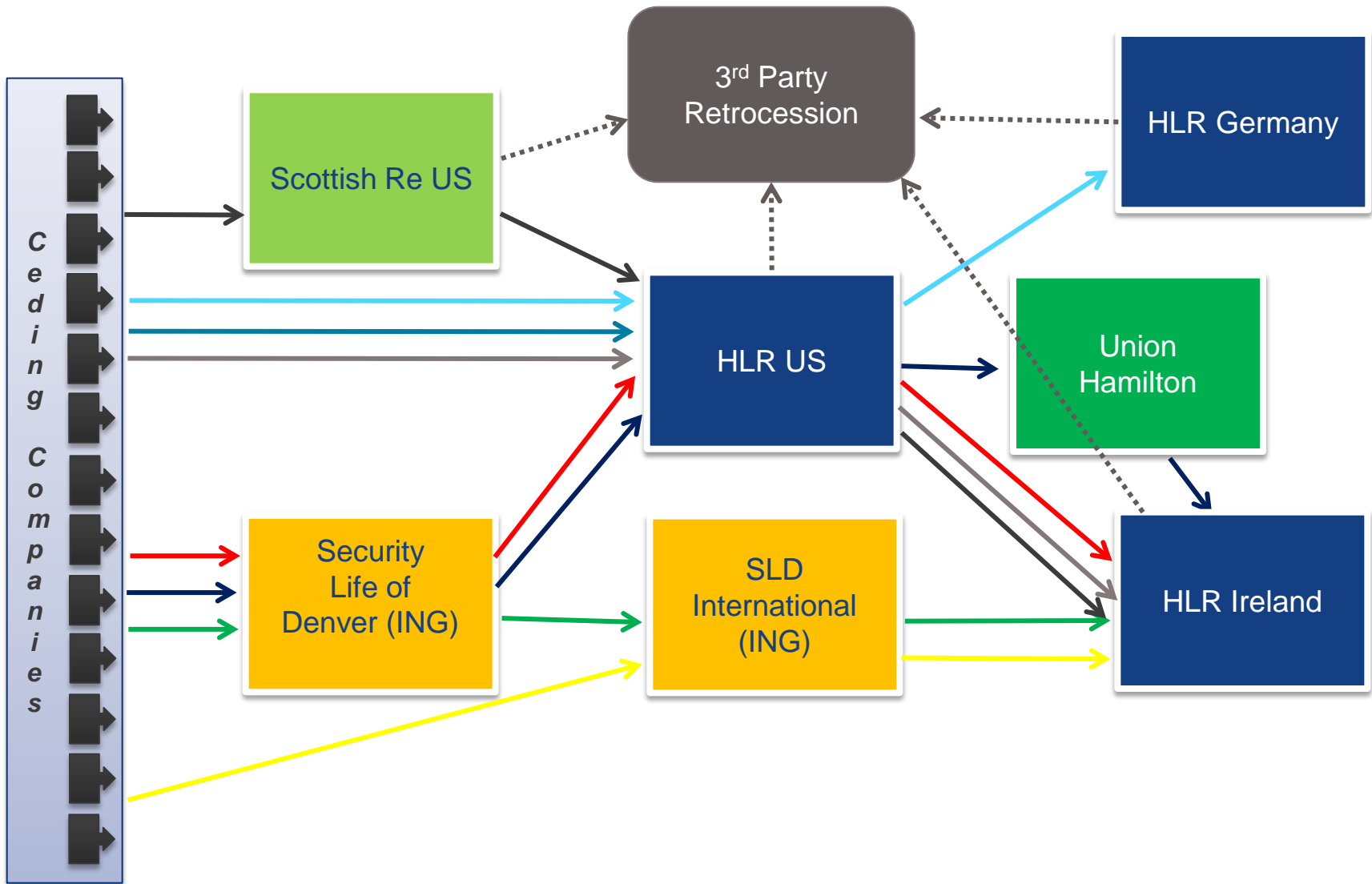
6,146 Assumed & Retrocession Treaties Administered

41,368 Claims Processed Annually



One Company's Story

M&A Fallout



IMPORTANCE OF DATA

Hannover Life Re - Mortality Solutions

Strategic Objectives

- Long Term Earnings Growth of 10%/Year
- ROE > 750bp + risk free
- Market Share = 10-15%

Profitable Growth



- Focus on customers who truly value what we do
- Build relationships and transactions based on win-win mentality

Build LT Relationships



- Superior ability to capture, process synthesize data
- Create actionable information & tools for ourselves and our clients

Excellence in Data



- Active monitoring of key performance drivers of our inforce business
- Timely pertinent data to minimize risk and maximize value

Inforce Management



- Invest in people and resources to properly manage risk
- While respecting HLR's resources and obligation to maximize shareholder value

Prudent Expense Structure



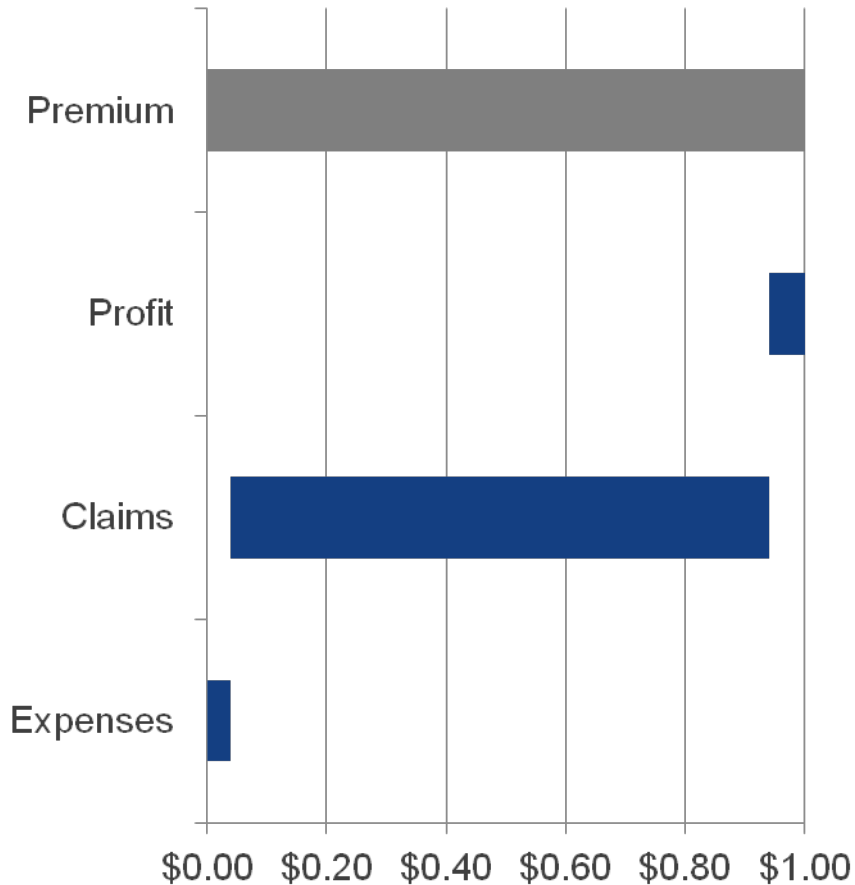
- Talent is our most precious resource
- A management priority
- An engaged and collaborative culture

Talent Management



Mortality Rates (And Premiums) Are Very Low And Margins Are Lower

Breakdown of \$1 of YRT Premium

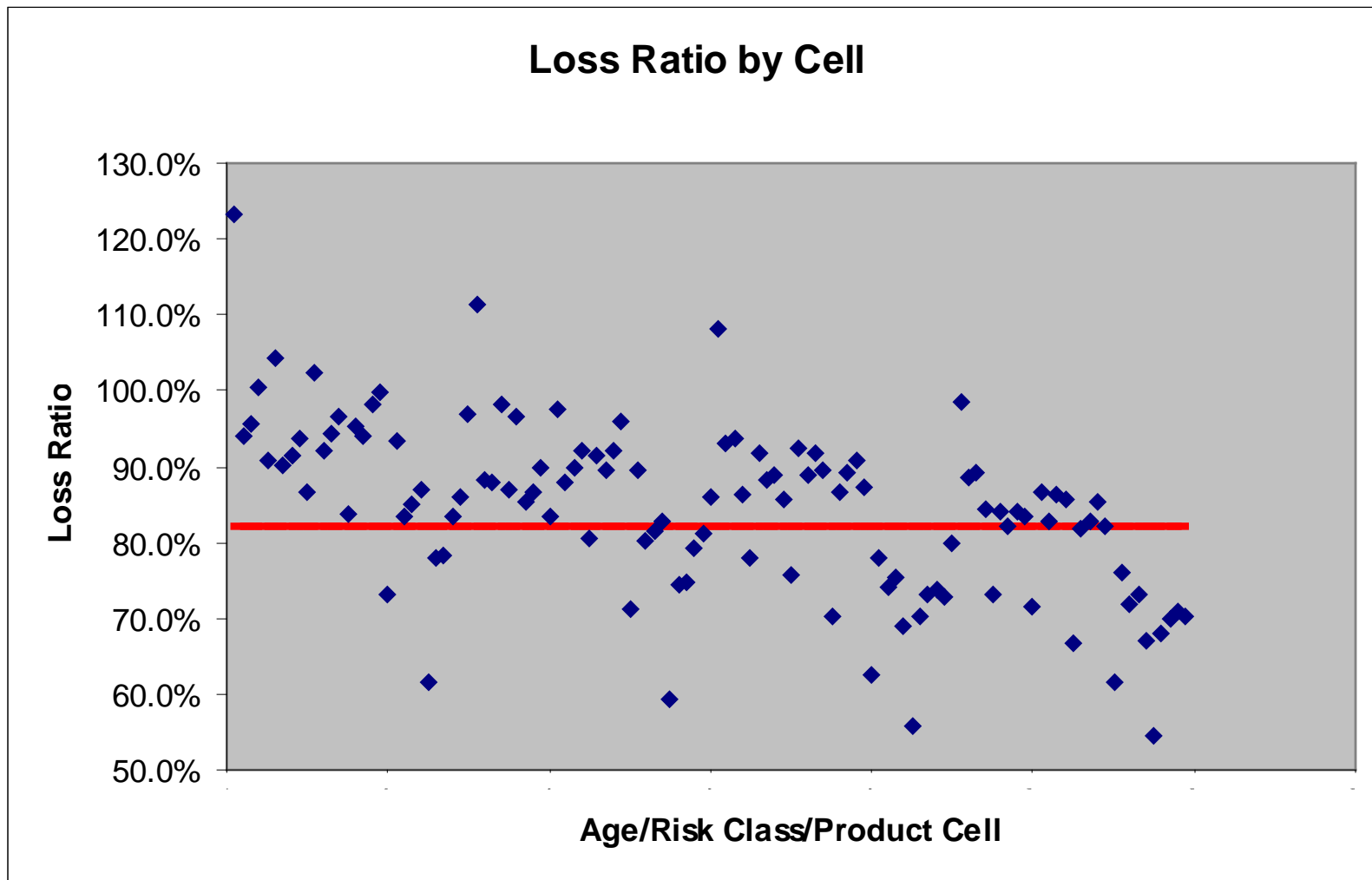


Net Amount @ Risk	\$5,000,000,000
Avg Premium / 1000	\$1.00
Annual Premium	\$5,000,000
Margin	6%
Anticipated Profit	\$300,000
Claims / Premiums	90%
Anticipated Claims	\$4,500,000
Impact of Extra 5%	\$225,000
5% as Additional Rate	0.0000450
1 Death per	22,222

RISK MANAGEMENT ISSUES

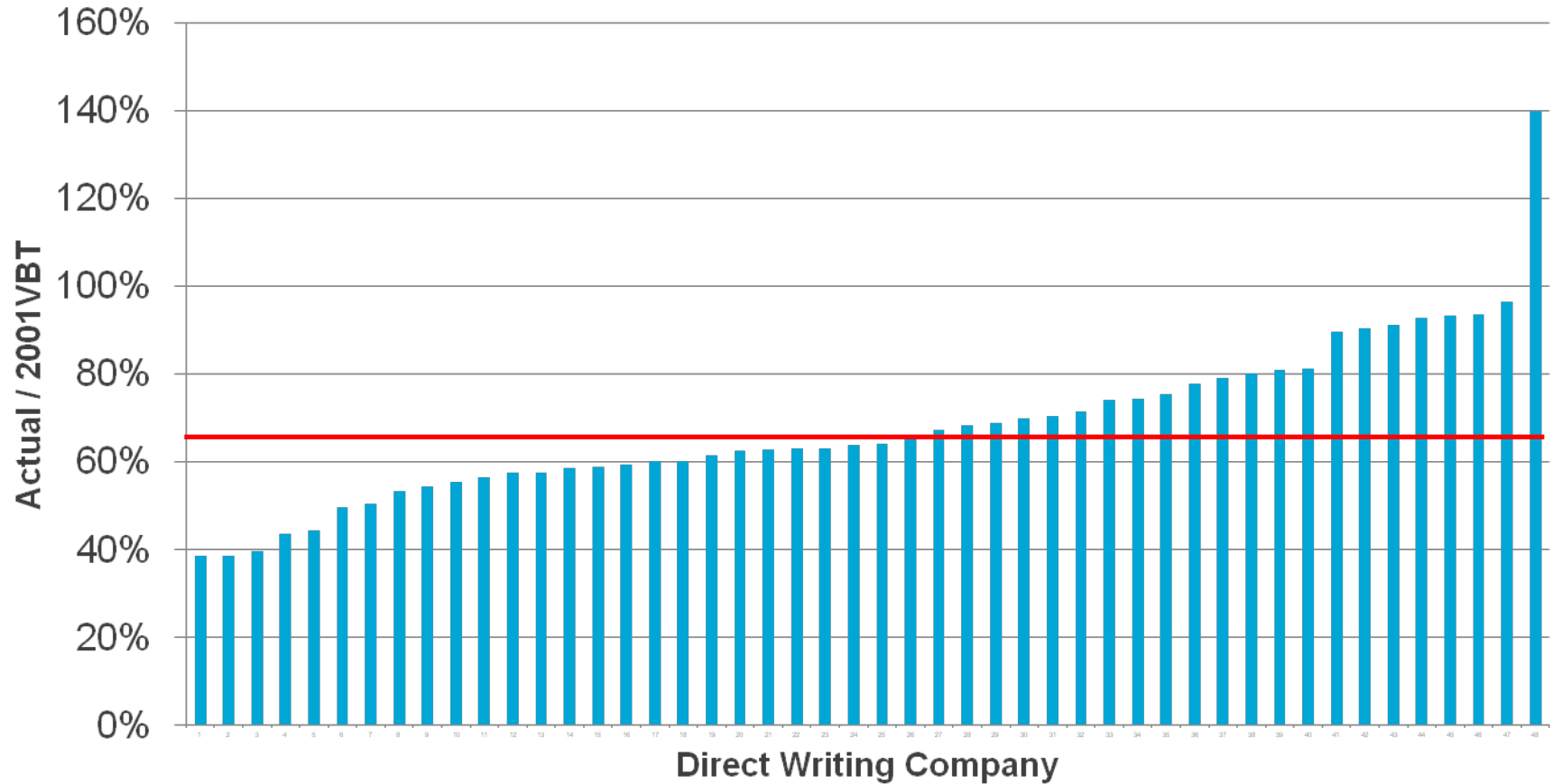
Critical Role of Demographics

Varying Level of Profitability by "Cell"



Mortality Results Differ Significantly By Company

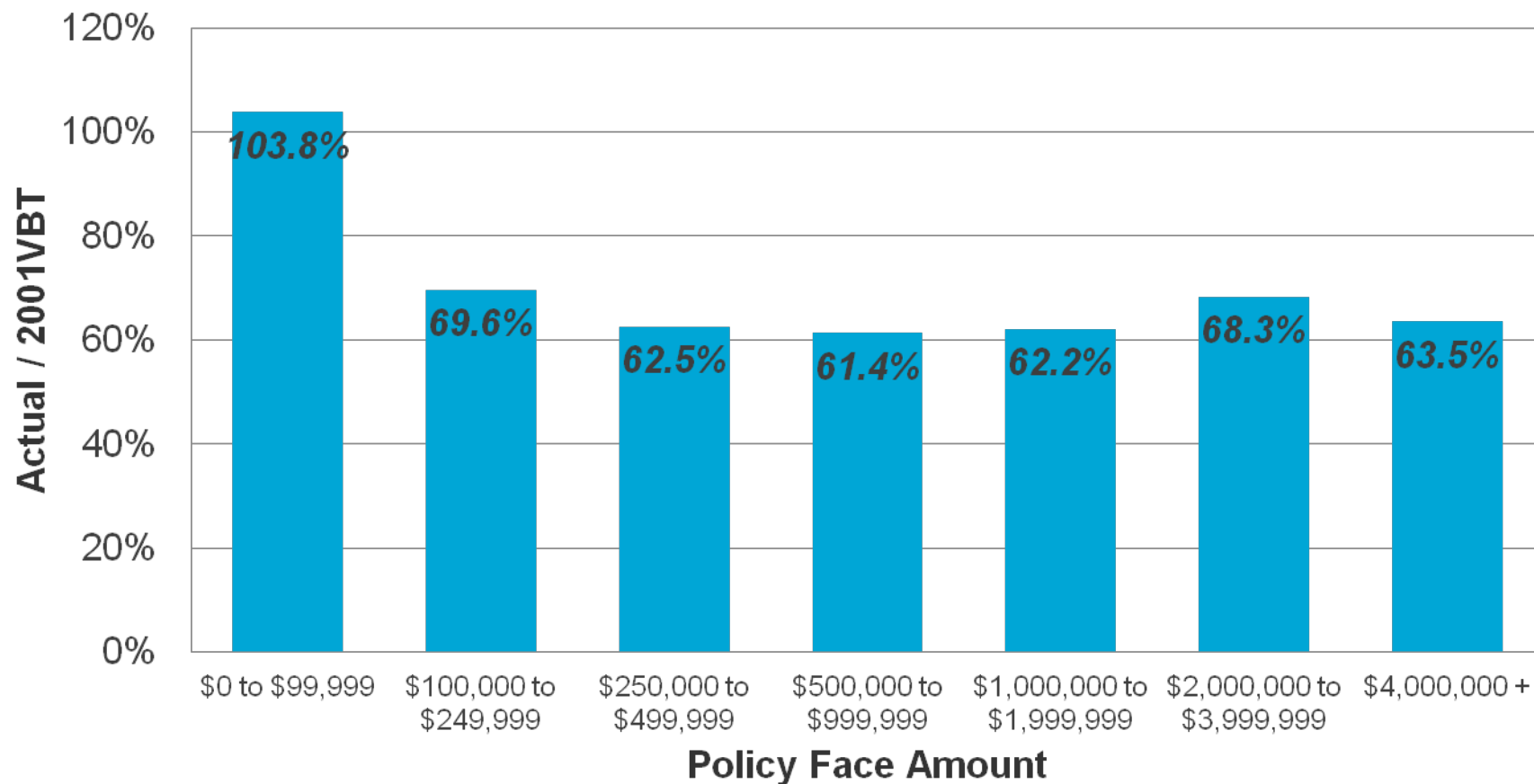
Mortality Experience by Company



Source: Hannover Life Re Experience Database 1997-2010

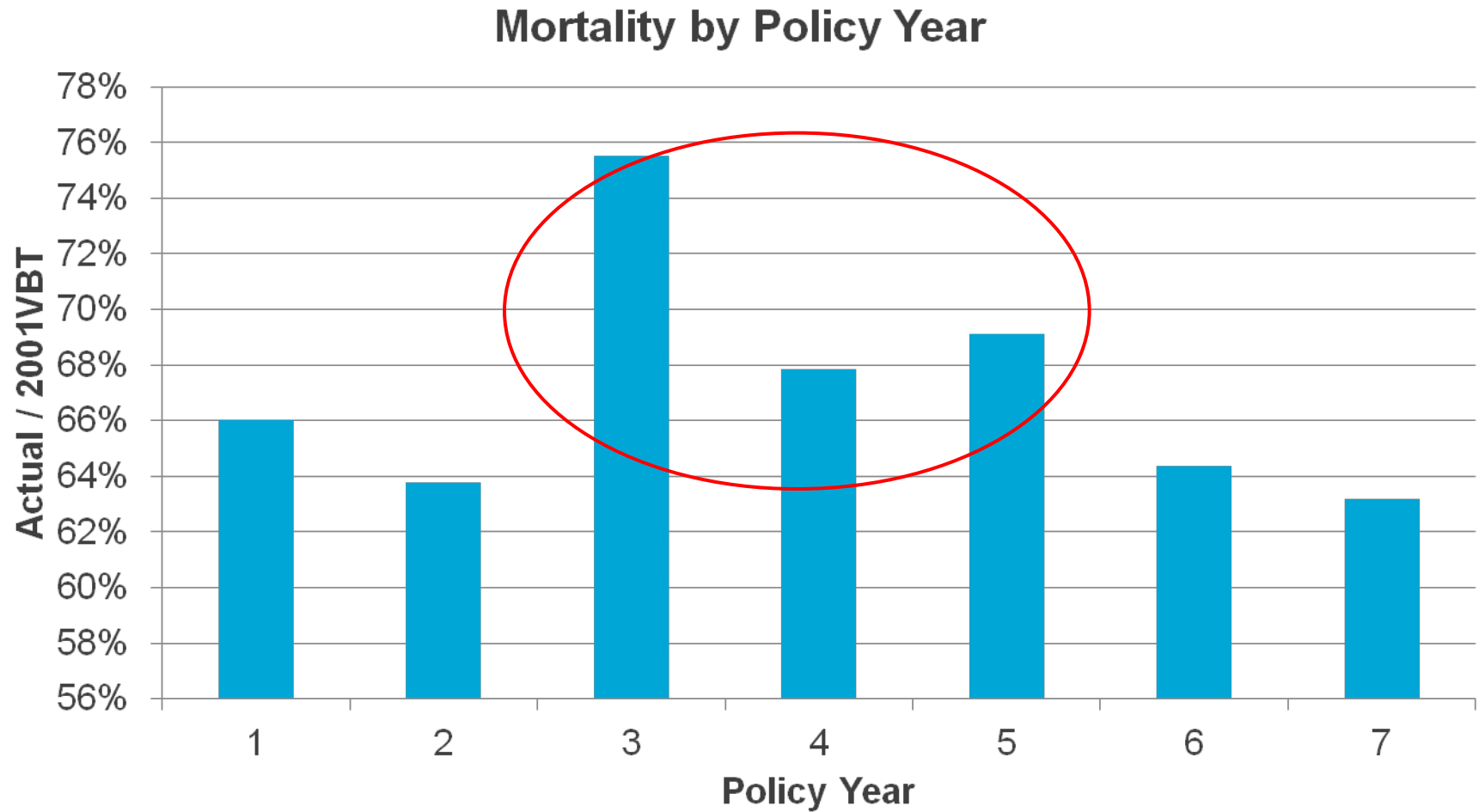
Despite Favorable Socio-Economics & Additional Underwriting: Large Amount Mortality is Not Favorable to Core Amounts

Mortality By Face Amount



Source: Hannover Life Re Experience Database 1997-2010

Clear Anti-Selective Dynamics Persist Beyond Contestable Period

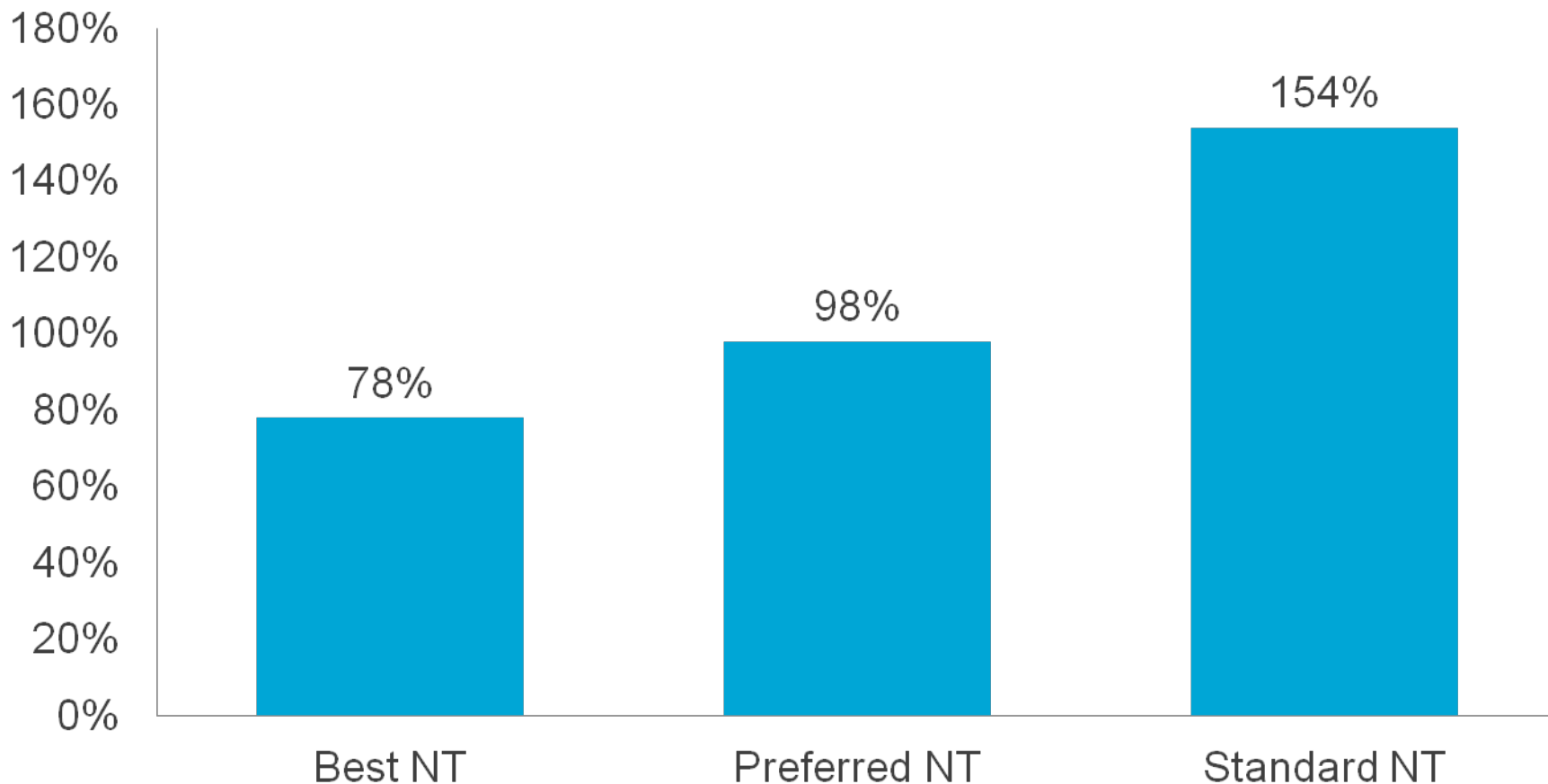


Source: Hannover Life Re Experience Database 1997-2010

Relative Risk by NT Risk Class

Preferred Underwriting Criteria Seem to Have Worked – Most Places

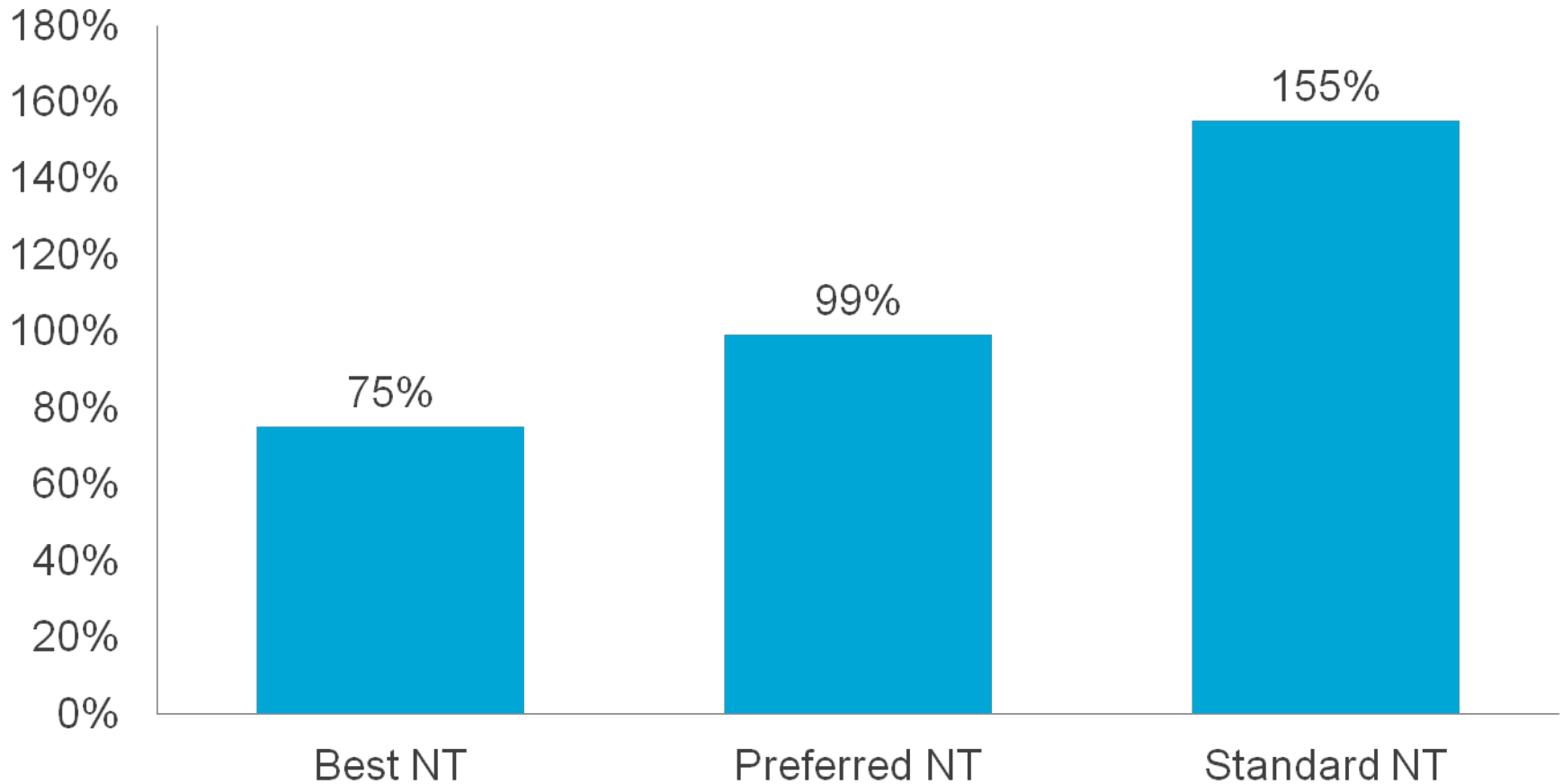
All Issue Ages



Source: Hannover Life Re Experience Database 1997-2010, Products with 3+ NT Classes, \$100,000+ Face Amount

Relative Risk by NT Risk Class

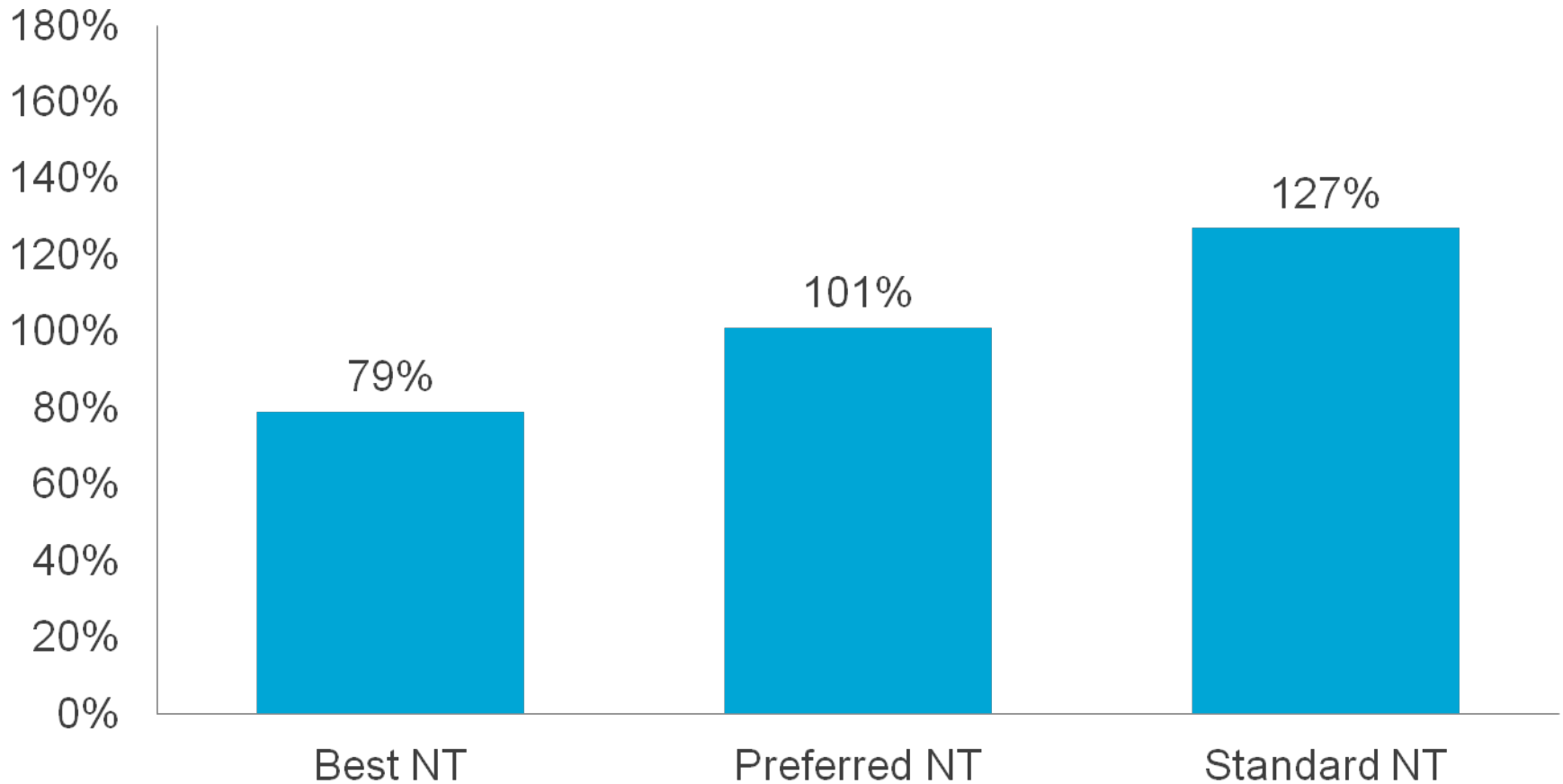
Issue Ages 21-59



Source: Hannover Life Re Experience Database 1997-2010, Products with 3+ NT Classes, \$100,000+ Face Amount

Relative Risk by NT Risk Class

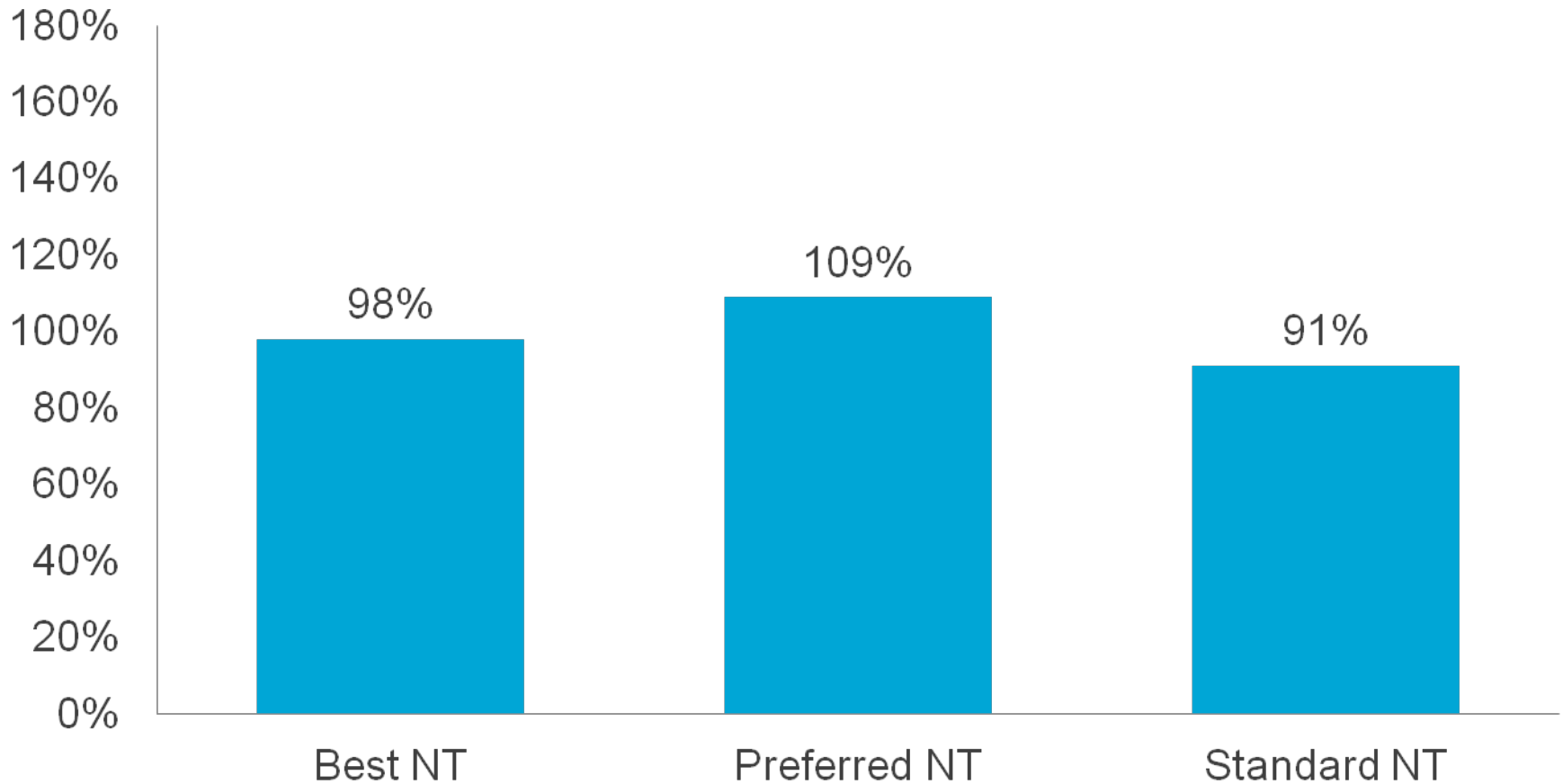
Issue Ages 60-69



Source: Hannover Life Re Experience Database 1997-2010, Products with 3+ NT Classes, \$100,000+ Face Amount

Relative Risk by NT Risk Class

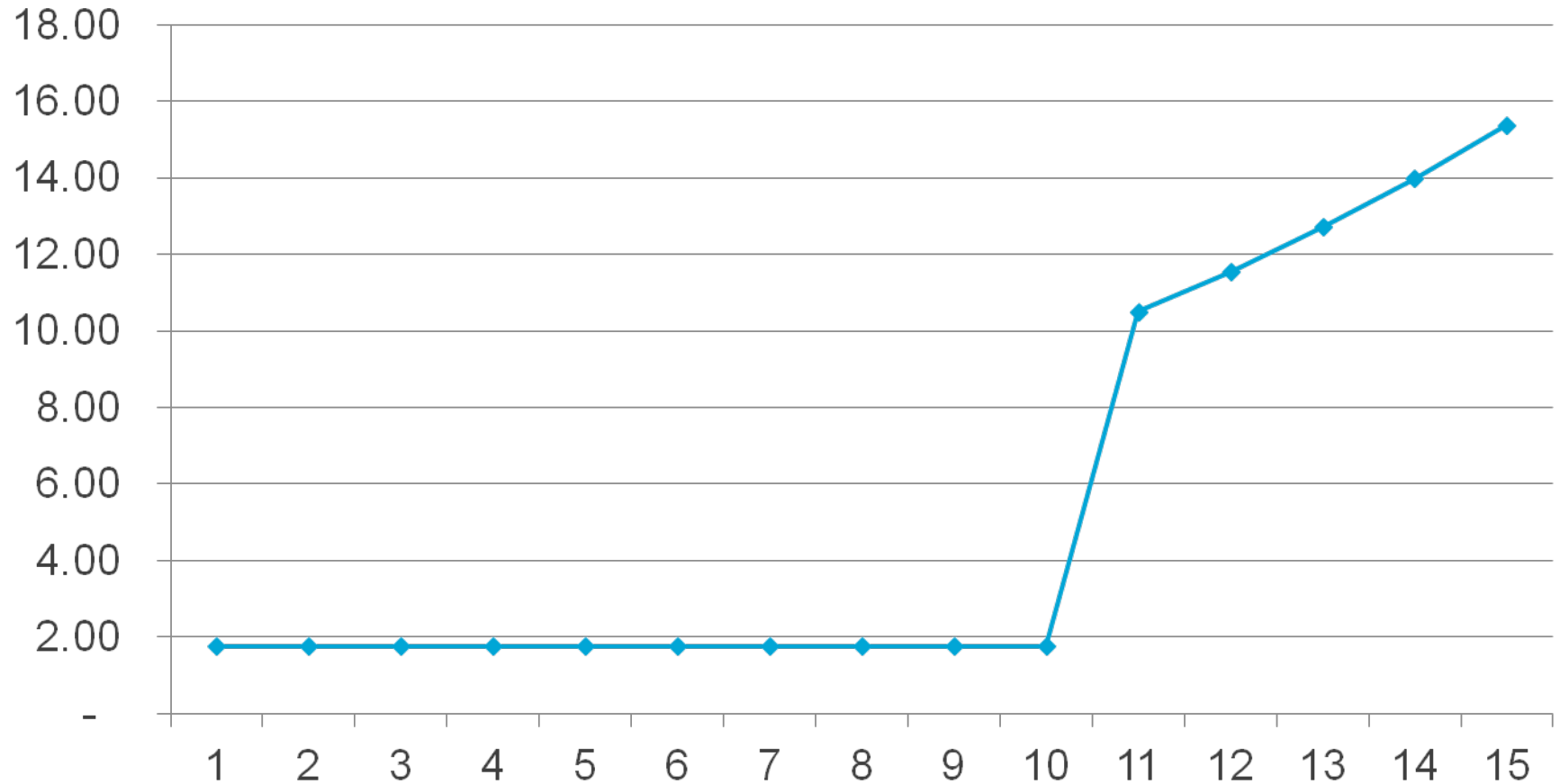
Issue Ages 70-79



Source: Hannover Life Re Experience Database 1997-2010, Products with 3+ NT Classes, \$100,000+ Face Amount

Post Level Term – An Emerging Issue

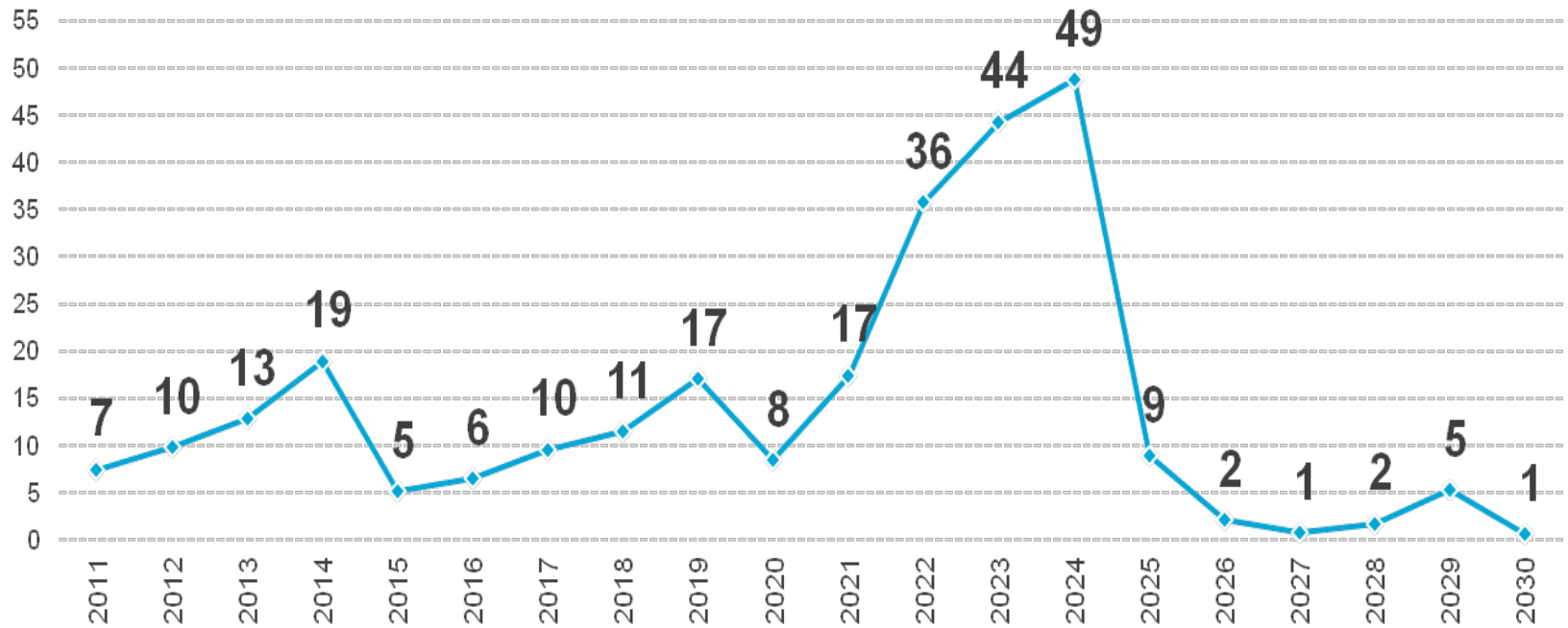
10 Year Level Term Premium Structure



Post Level Term – An Emerging Issue

An Issue of Increasing Relevance

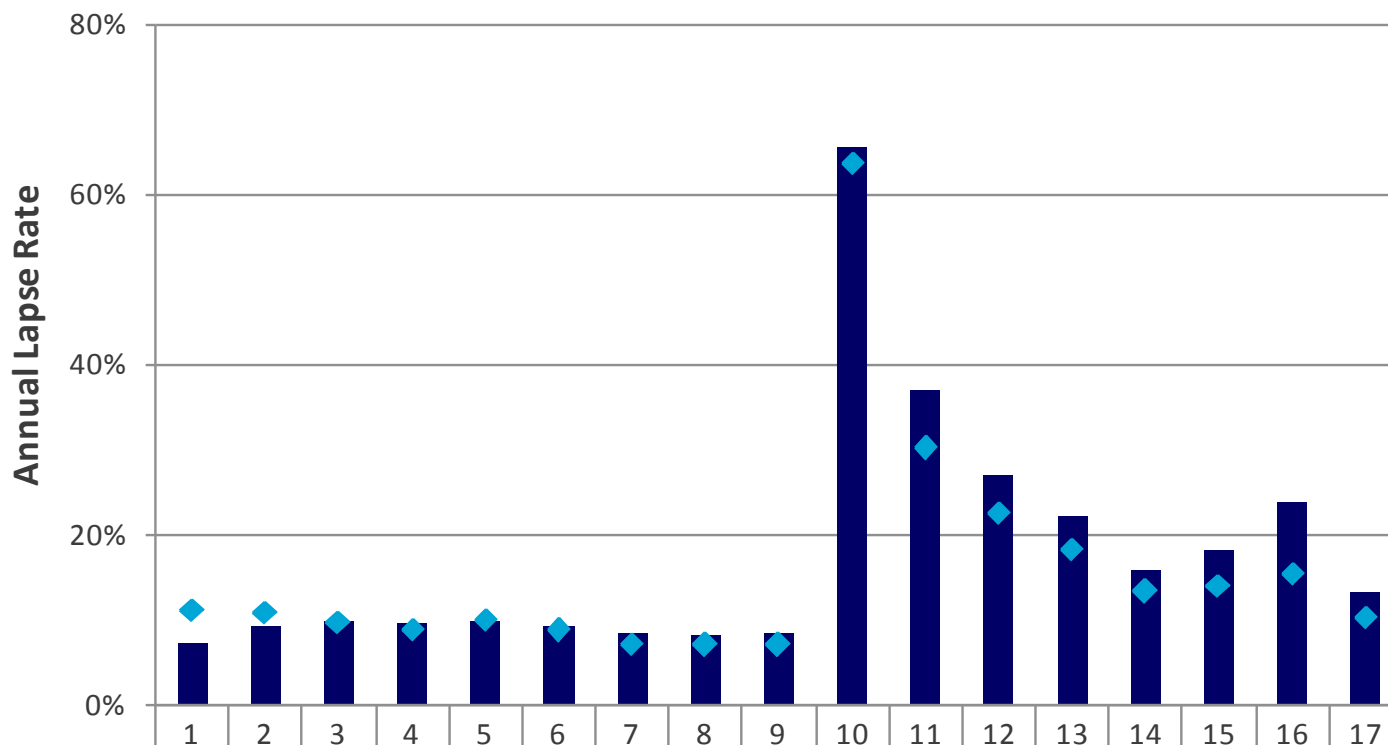
Former ING Re Block - \$NAR Reaching End of Level Period



Post Level Term – An Emerging Issue

Experience to Date: Initial Shock Lapse Lower than Anticipated

10 Year Product Lapse Rates by Duration

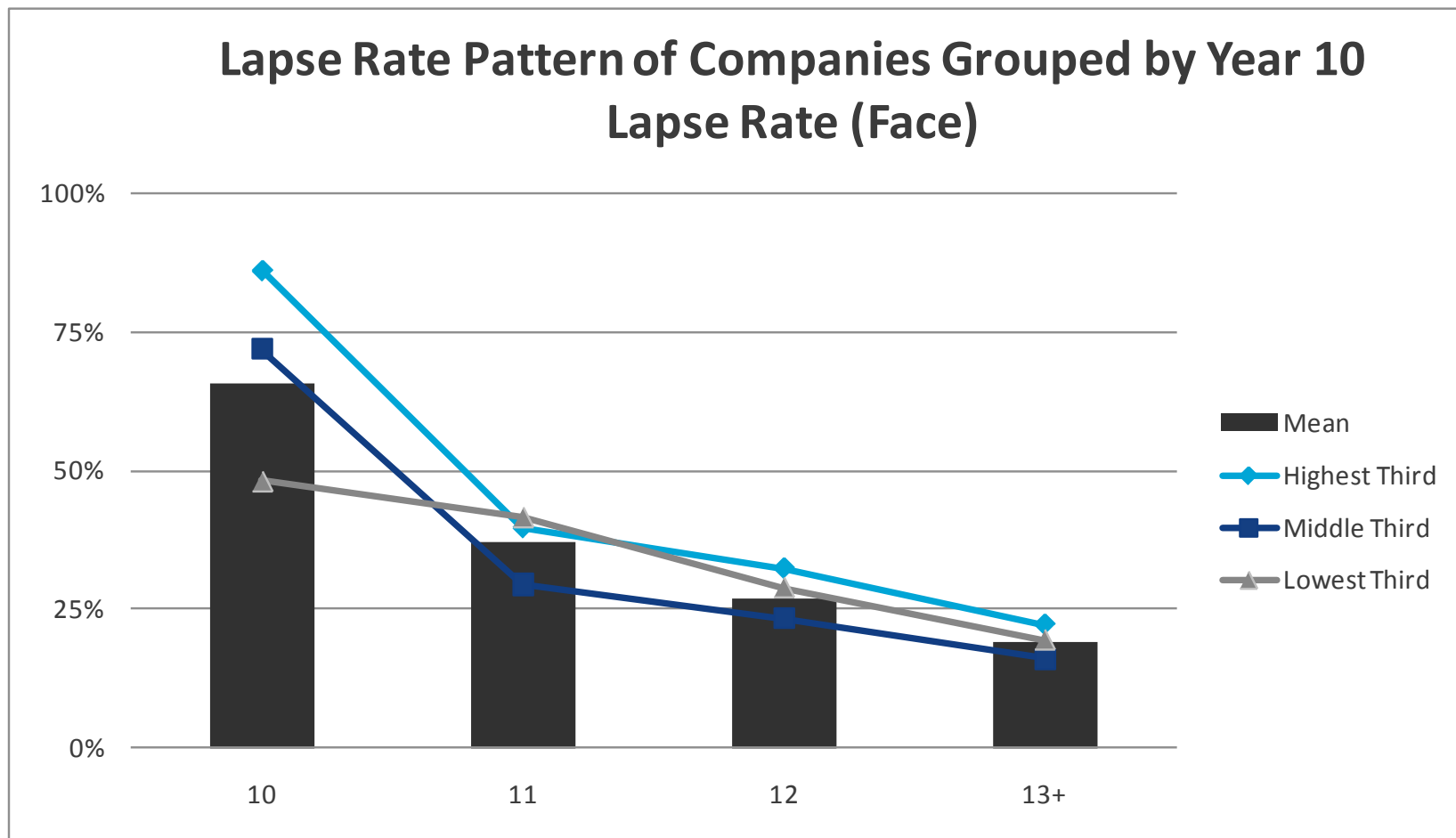


■ Lapse Rate by Face	7%	9%	10%	9%	10%	9%	8%	8%	8%	65%	37%	27%	22%	16%	18%	24%	13%
◆ Lapse Rate by Count	11%	11%	10%	9%	10%	9%	7%	7%	7%	64%	30%	23%	18%	13%	14%	15%	10%

Source: Hannover Life Re Experience Database 1997-2010 – 2010 Post Level Study

Post Level Term – An Emerging Issue

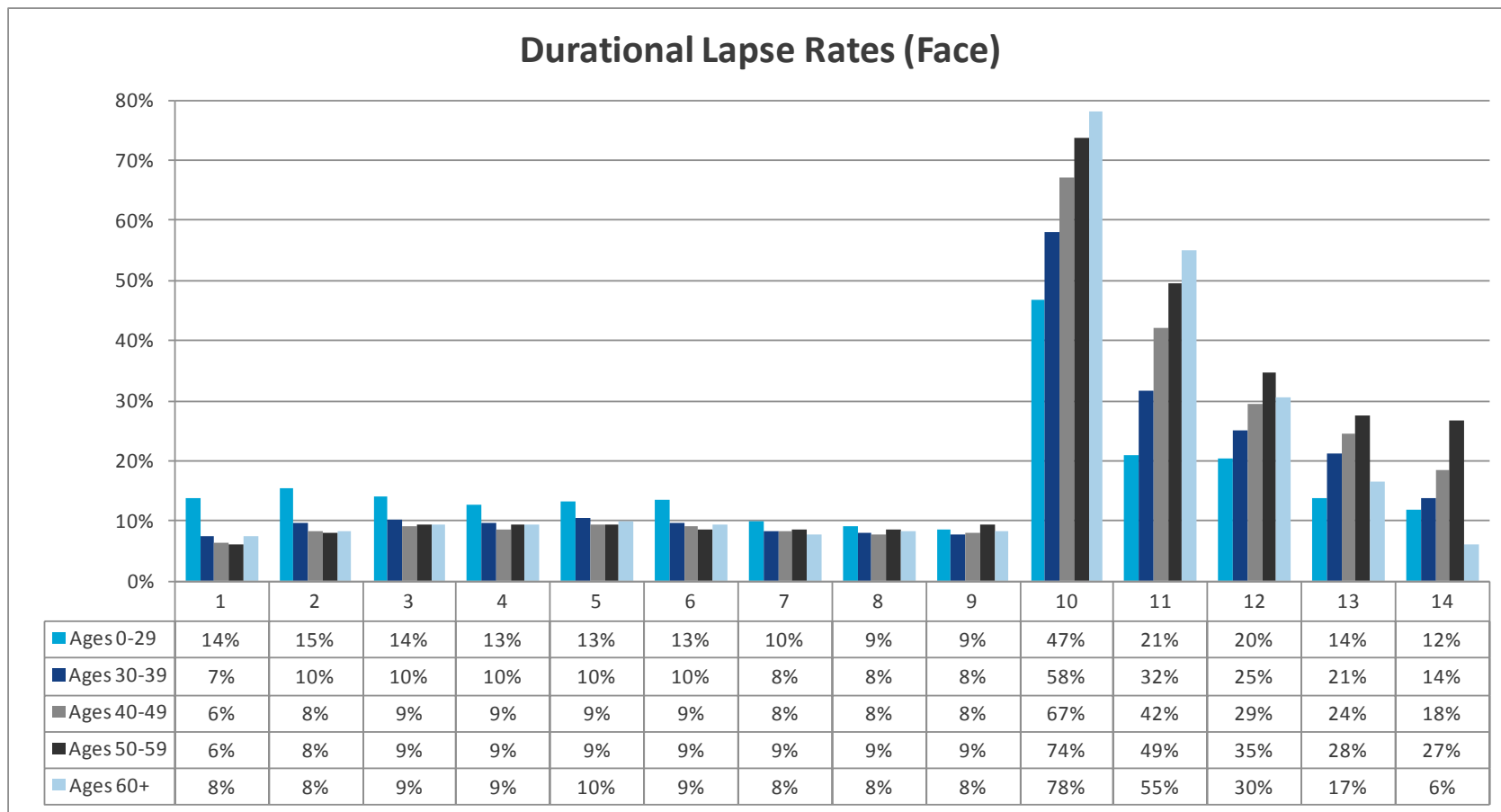
Varies Significantly By Company (Primarily Due to Size of Premium Jump)



Source: Hannover Life Re Experience Database 1997-2010 – 2010 Post Level Study

Post Level Term – An Emerging Issue

Shock Lapse Higher for Older Ages

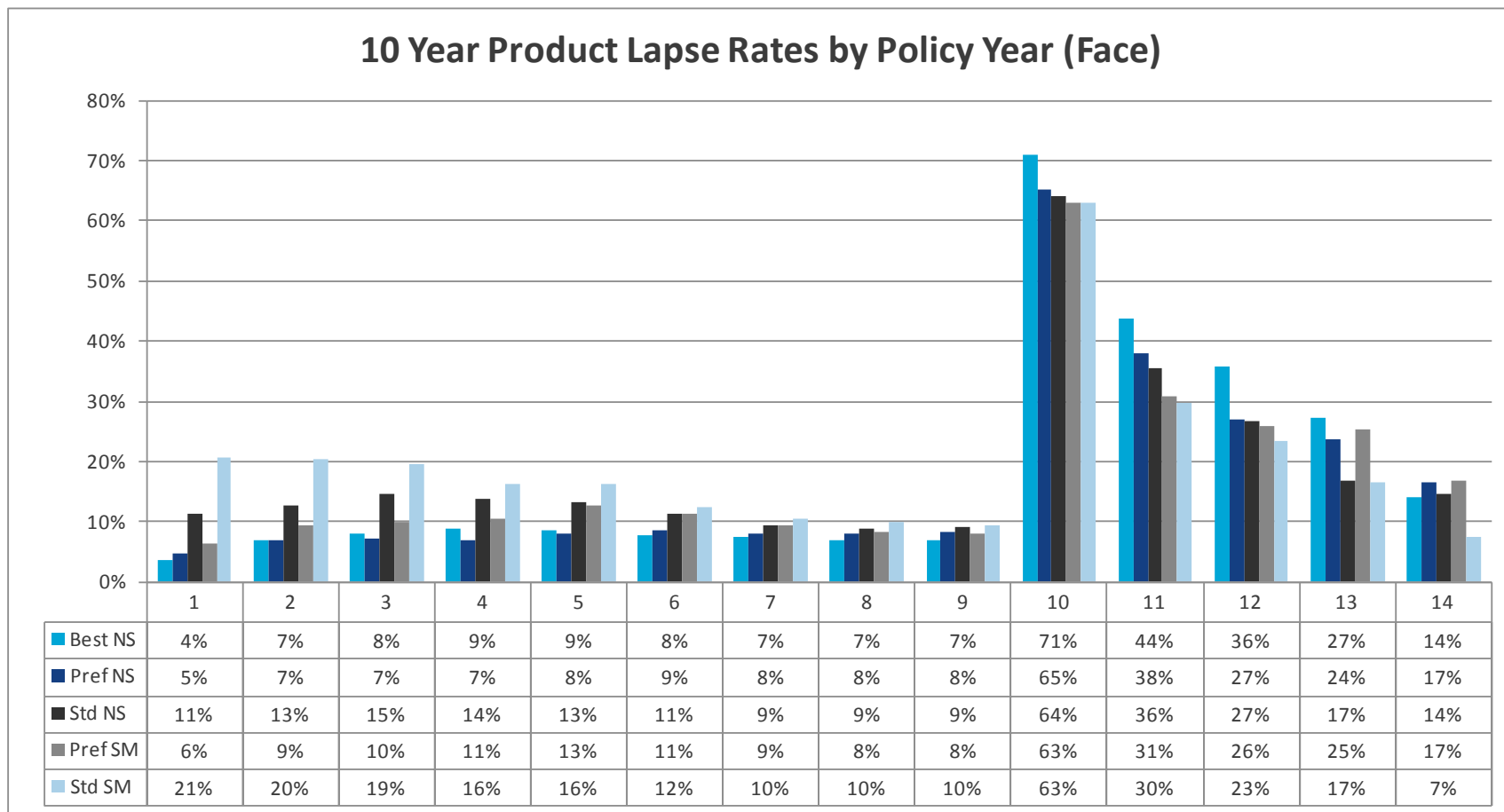


Source: Hannover Life Re Experience Database 1997-2010 – 2010 Post Level Study

Post Level Term – An Emerging Issue

Also Higher for Better Risk Classes

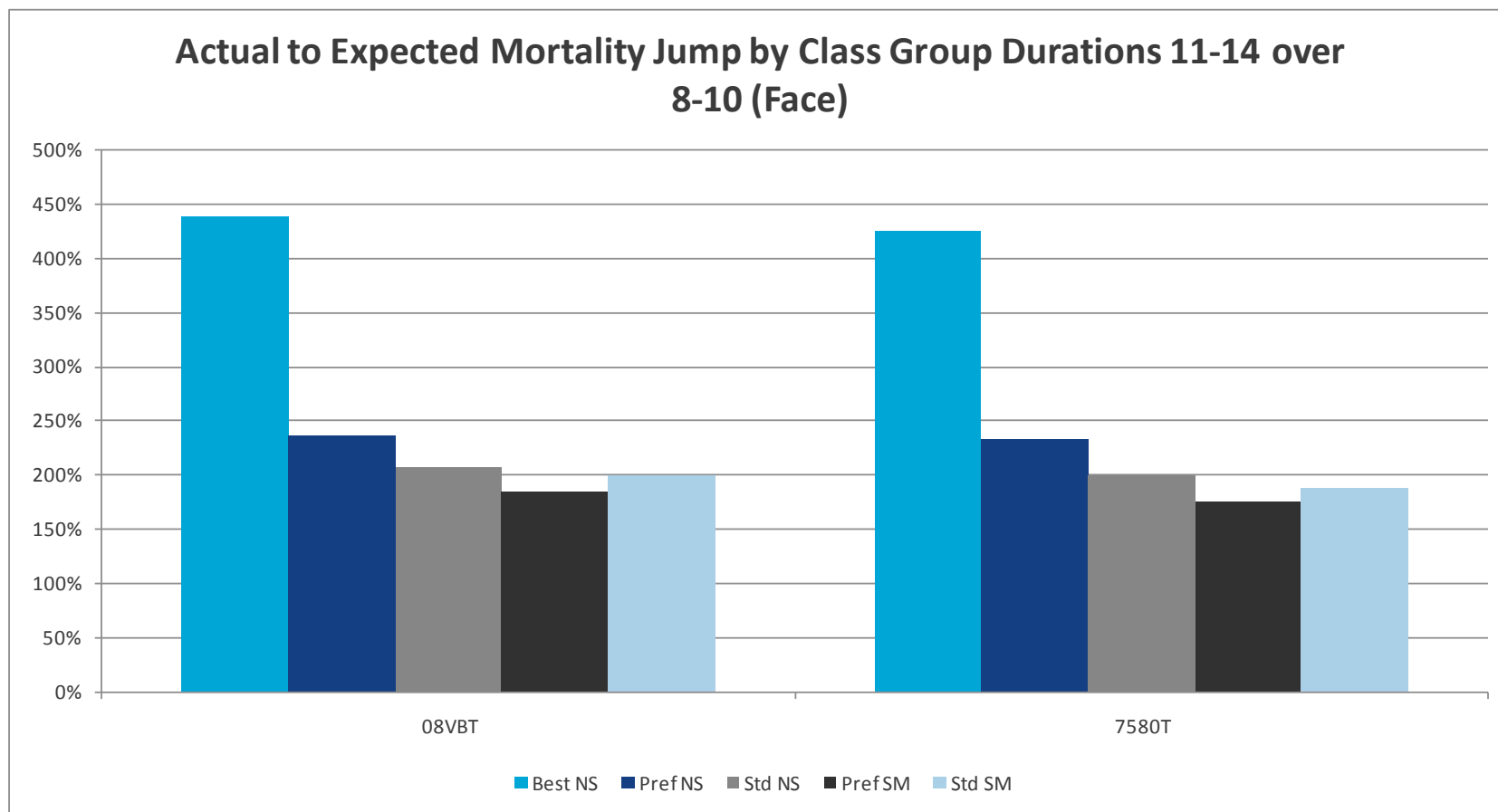
10 Year Product Lapse Rates by Policy Year (Face)



Source: Hannover Life Re Experience Database 1997-2010 – 2010 Post Level Study

Post Level Term – An Emerging Issue

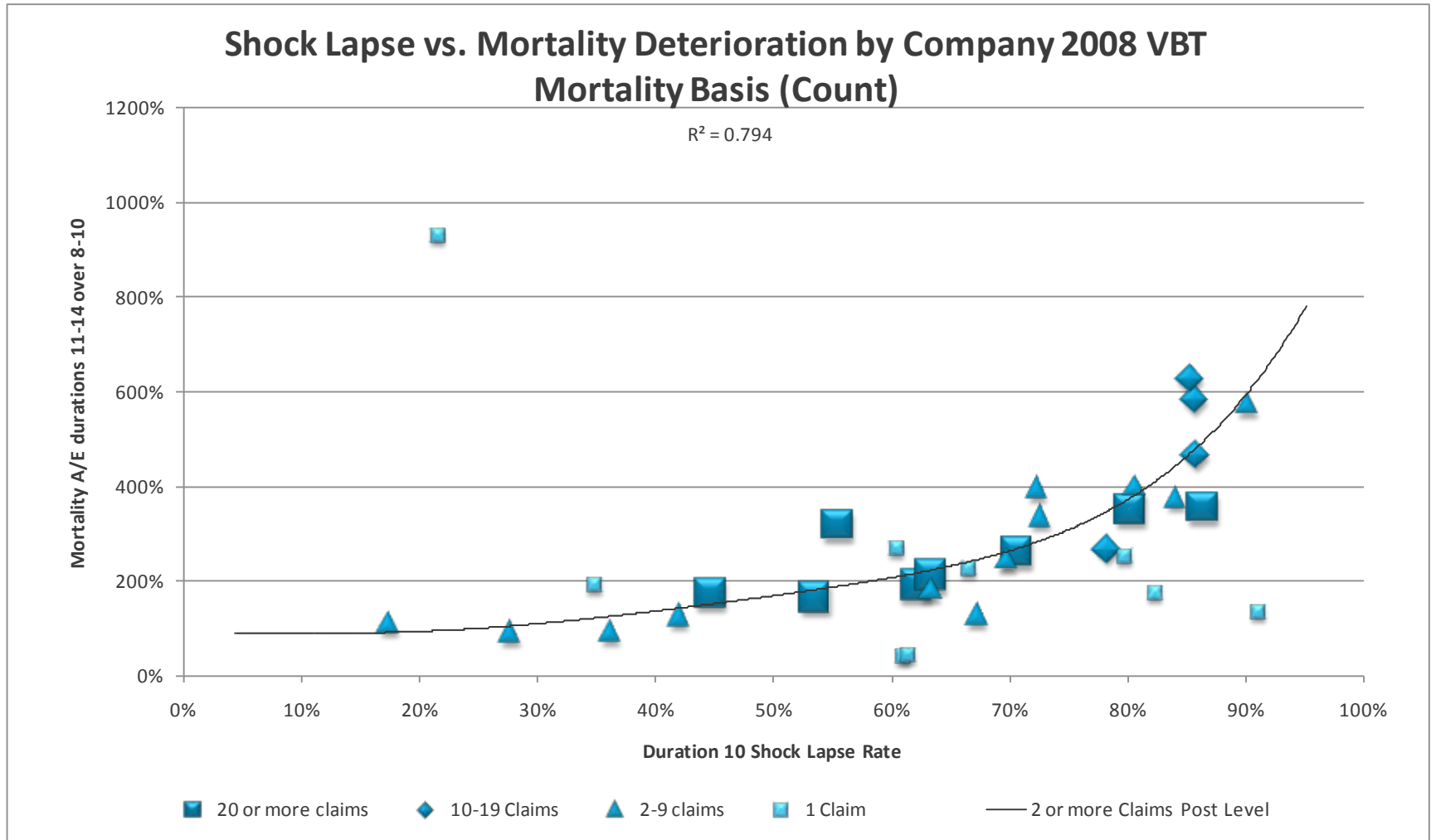
Mortality Deteriorates After Shock – More for Best Original Risk Classes



Source: Hannover Life Re Experience Database 1997-2010 – 2010 Post Level Study

Post Level Term – An Emerging Issue

Relationship of Mortality Deterioration to Shock Lapse



Source: Hannover Life Re Experience Database 1997-2010 – 2010 Post Level Study

REGULATORY CHANGE

Regulatory Environment

Change Is On It's Way

U.S. Statutory

- Prescribed Approach
- Non-Economic
- One Size Fits All
- Minimal Subjectivity

GAAP / IFRS

Based on Original Assumptions
 Lock In

Principles Based Reserves

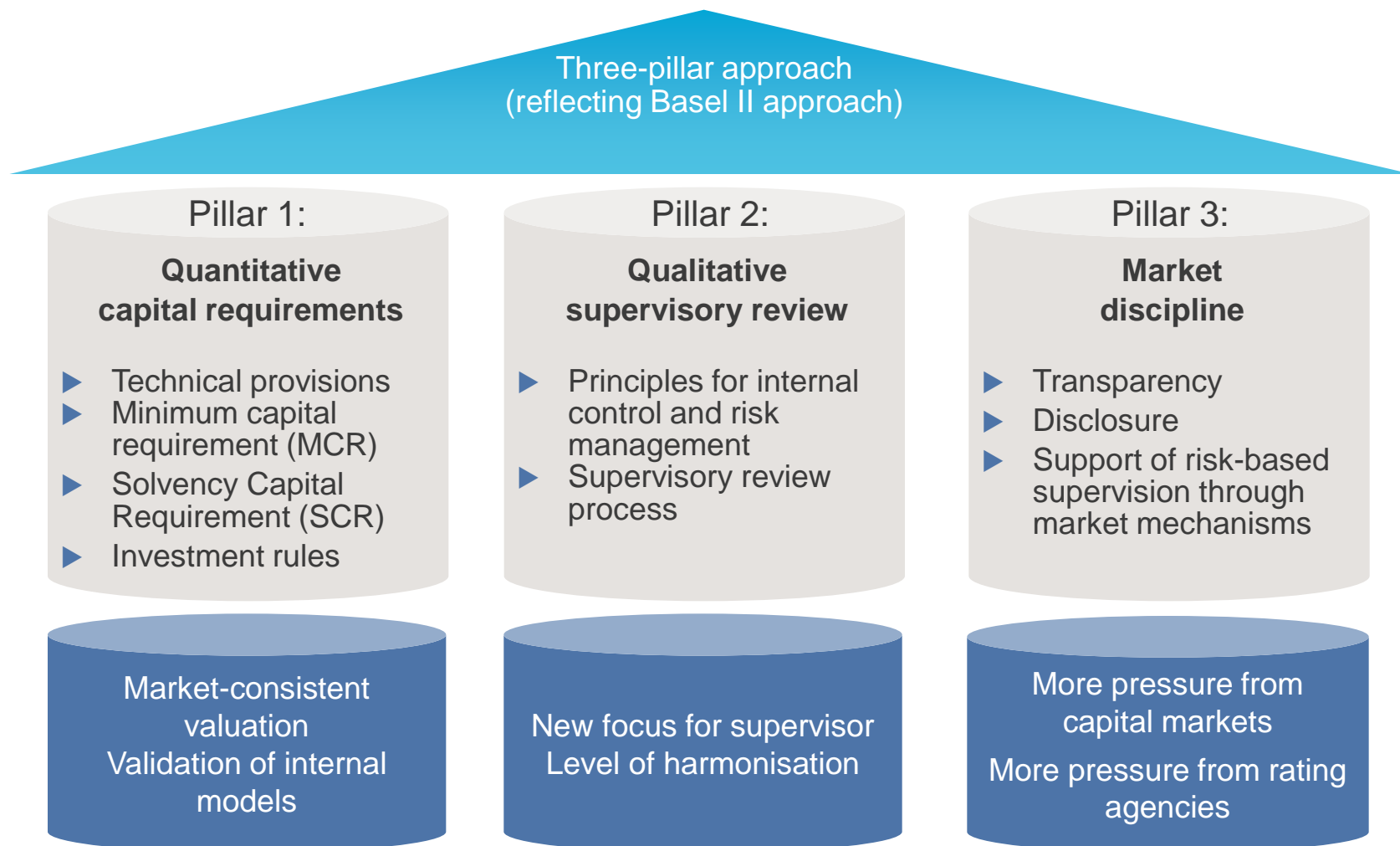
IFRS Phase 2

Solvency II



Solvency II

Effective 2013-2014



The Math of Solvency II in One Slide

Really

Building An Economic Balance Sheet

$$\text{Capital} = \text{Assets} - \text{Liabilities}$$

?????? Three Questions ????????

How to Value
Assets?

How to Value
Liabilities?

How Much Capital
is Required?

Assets

- The easy one
- Mostly readily available

Liabilities

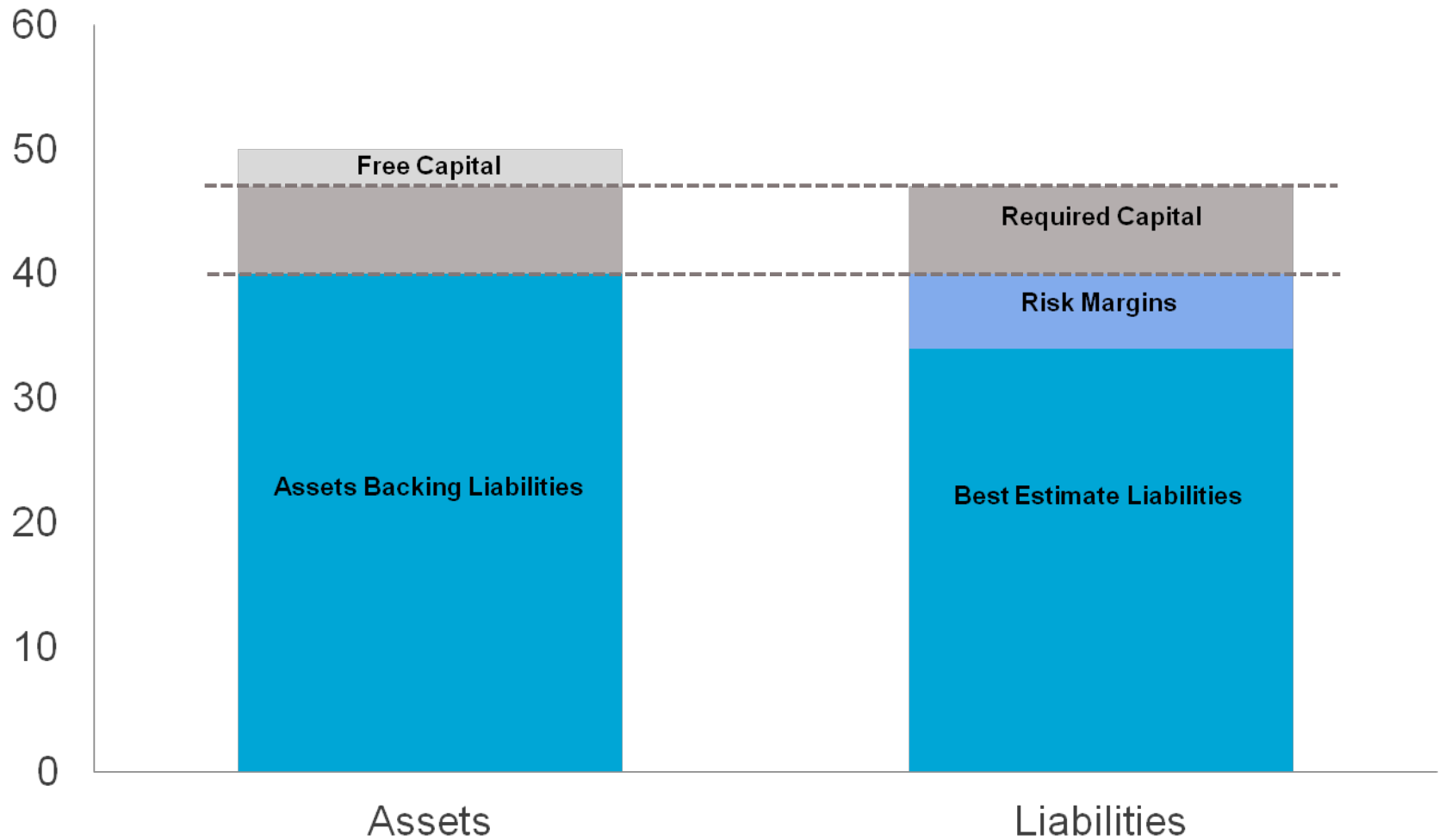
- Reserve = Best Estimate + Risk Margin
- Must defend assumptions continuously

Capital?

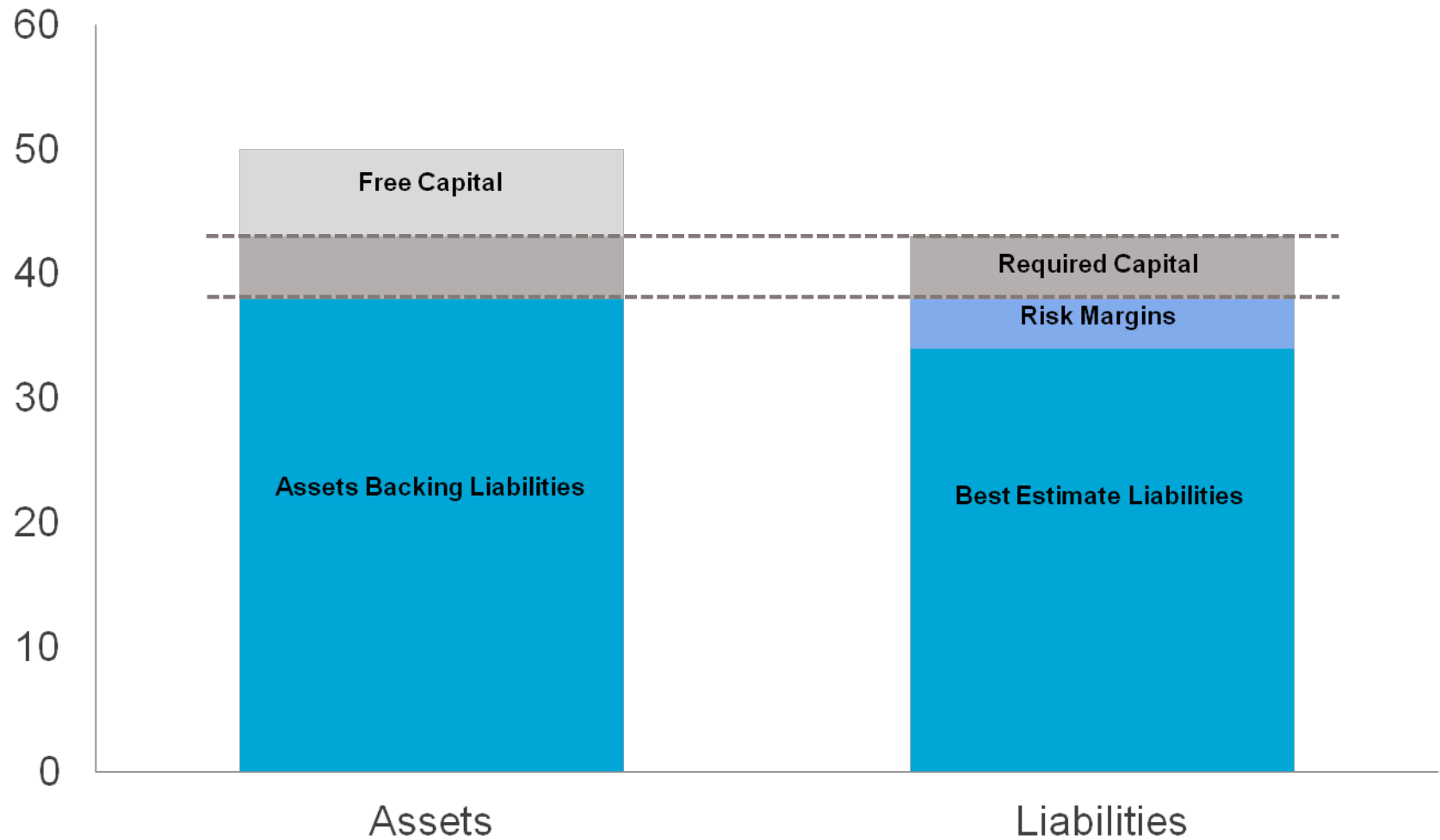
- Prescribed ---- or, 99.5% scenario from internal model
- Requires detailed models approved by Regulator

Significant Focus on Data with Explicit Data Standard Provisions in Regulation

Conceptual Balance Sheet



Conceptual Balance Sheet



Questions

