



KNIGHTHEAD™

ANNUITY & LIFE ASSURANCE COMPANY

## The Dynamic and Evolving Pension Risk Transfer Market



# Disclaimers



**KNIGHTHEAD™**  
ANNUITY & LIFE ASSURANCE COMPANY

This presentation is not an offer to sell or a solicitation of an offer to purchase interests or products of Knighthead Holdings Ltd. or its subsidiary ("KH Holdings" or the "Company"). While all the information prepared in this presentation is believed to be accurate, neither KH Holdings nor Knighthead Capital Management, LLC ("KHCM") makes any express warranty as to the completeness or accuracy nor can they accept responsibility for errors appearing in the presentation. Any projections, outlooks or assumptions should not be construed to be indicative of the actual events which will occur. KHCM may modify its products, investment approach and any portfolio parameters set forth herein at any time in any manner which it believes is consistent with its overall investment objective without notice. This presentation is not intended for public use or distribution and cannot be reproduced, shared or published in any manner without the prior written consent of Knighthead Holdings.

Certain information contained in this presentation constitutes

"forward looking statements", which can be identified by the use of forward-looking terminology, such as "may", "will", "seek", "should", "expect", "anticipate", "project", "estimate", "intend", "continue", "believe" or the negatives thereof or other variations thereof or comparable terminology. Due to various risks and uncertainties, actual events or results or the actual performance of the company may differ materially from those reflected or contemplated in such forward-looking statements.

This presentation is for informational purposes only. It does not create or define any relationship of any kind between the parties. Any actual relationship shall only be governed by a written contract.

Any information contained herein may be amended or changed with or without notice.

# Table Of Contents



**KNIGHTHEAD™**  
ANNUITY & LIFE ASSURANCE COMPANY

- I. PRT Market Overview
- II. PRT Transaction Execution Dynamics
- III. Use of Predictive Analytics
- IV. Use of Reinsurance

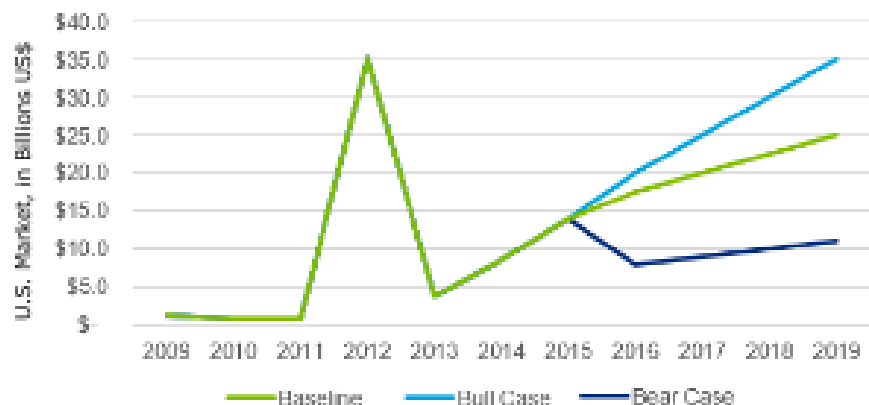


## I. PRT Market Overview

# The Changing Group Annuity Marketplace

Clients are interested in understanding where they might be able to play in the steadily growing PRT market

## Historical and Projected Group Annuity Sales



Sources: LIMRA Secure Retirement Institute sales surveys; Deloitte Consulting projections

## U.S. Qualified Pension Plans

Plan Size	# Plans	U.S. Funding Liability (\$M's)	% Retiree
> \$5B	52	\$688,000	58%
\$1B - \$5B	280	\$608,000	49%
\$500M - \$1B	240	\$168,000	45%
\$100M - \$499M	546	\$272,000	44%
\$50M - \$99M	1,608	\$63,000	43%
\$10M - \$50M	2,866	\$67,000	41%

Source: Dept. of Labor, 2014 Plan Year Form 5500 Schedule SB

## Market Growth and Dynamics

### DEMAND SIDE

- Adjusting for GM and Verizon mega-deals, buyout premium has increased substantially for last five years and consensus views suggest ongoing growth
- If just 10% of current retiree liabilities are bought out, that is more than \$100B of new premium.
- Plan sponsors increasingly settling portions of the plan (i.e. retirees), resulting in more medium sized deals
- Fiduciary scrutiny on jumbo cases driving the multiple insurer model, increasing competition for these deals
- Given market dynamics, largest growth likely to come from \$100M - \$500M placements with heavier competition in this space

### SUPPLY SIDE

- Prudential has been the market leader for jumbo deals
- Market growth attracting new competition with a few new insurers entering the market in second half of 2016 and likely more to come
- As large, retiree-only deals are more available, larger insurers are turning away from less desirable cases (significant deferred lives, lump sums, etc.)
- Existing insurers are revisiting their group annuity strategy given market growth and the confluence of capital considerations under various regulatory (IAIS, SII, RBC, CCAR, SMR, etc.), rating agency, and internal capital frameworks

# The Changing Finances of DB Pensions

Significant increases in PBGC Premiums are making it more expensive to maintain a pension plan, particularly if the plan is underfunded and paying variable rate premiums.

## PBGC Premium Increases

	2013	2014	2015	2016	2017	2018	2019
Flat Rate	\$42	\$49	\$57	\$64	\$69	\$74	\$80
Variable Rate per \$1000 unfunded	\$9	\$14	\$24	\$30	\$34	\$38 or more	\$42 or more
Variable Rate Cap	\$400	\$412	\$418	\$500	\$517	\$517 or more	\$517 or more

The plan will pay **\$829,644** for PBGC premiums for the 2016 plan year. The premium rates are increasing with inflation (2018+ will depend on actual 2017+ inflation experience) and will likely offset much of the natural decrease in headcount in the near term.

In total, the present value of all future PBGC premiums is likely over **\$10,000,000**, assuming the plan stays at the PBGC variable rate cap.

# Pension Risk

## Common Themes for Retiree Buyout

Plan sponsors who have implemented a large annuity purchase generally had pension liabilities that were outsized relative to the scale of their business, and were subject to significant earnings volatility and risk of large, unexpected cash funding requirements if unaddressed

### Organizational Philosophy

*Most of the plan sponsors had already taken significant de-risking actions prior to the buy-out to address risk in their plan*

Significant Cash Contributions	ü
Asset/Liability Matching	ü
Closed Plan to New Participants	ü
Froze Benefits	ü
Large Scale Lump Sums	ü

### Risk Focused Objectives

- Right-size the plan
- Improved risk profile and financial flexibility
- Elimination of future costs and administrative processes
- Security to all plan participants
- Focus on core business issues

### Making the Economics work

*The economics for each transaction are different. Market conditions and economics **have become more favorable** to reduce obligation when adjusting for risk and administrative costs (particularly in light of rising PBGC premiums)*

#### Percentage of US GAAP Liability For Retirees (Illustrative)



# Pension Risk

## Liability Management Strategies

Even under the current interest rate environment, large pension plan sponsors continue to execute and consider retiree buy-outs. Activity in the fourth quarter was high, and plan sponsors and insurers are bracing for more activity in 2017.

### Notable Transactions

Company	Amount (\$ Billions)	Year	Term Vested Lump-sum	Retiree Lump-sum (No longer allowed)	Retiree Annuity Buy-out
General Motors	\$30.6	2012		0	0
Verizon	\$8.4	2012			0
Alcatel Lucent	\$5.3	2015	0	0	
Ford	\$4.2	2012-13	0	0	
Motorola Solutions	\$4.2	2014	0		0
Kimberly Clark	\$2.6	2012-2015	0		0
Westrock	\$2.5	2016			0
PPG	\$2.5	2016			0
National Cash Register	\$1.9	2012-2014	0		0
JC Penney	\$1.3-\$1.8	2015	0	0	0
Sears	\$1.5	2012	0		
Bristol-Myers Squibb	\$1.4 <sup>(2)</sup>	2014			0
Royal Phillips	\$1.1	2015			0
TRW Automotive	\$0.9	2012-2014	0		0
Hewlett Packard	\$0.8	2015	0		
AkzoNobel	\$0.8	2012-14	0		0
Visteon	\$0.8 <sup>(1)</sup>	2012-14	0		0
SPX Corp.	\$0.8	2012-14	0		0
Timken	\$0.7	2015	0		0

Notes: Based on public filings and information. (1) Amount represents annuity buy-out only, (2) Buy-out included Term Vested



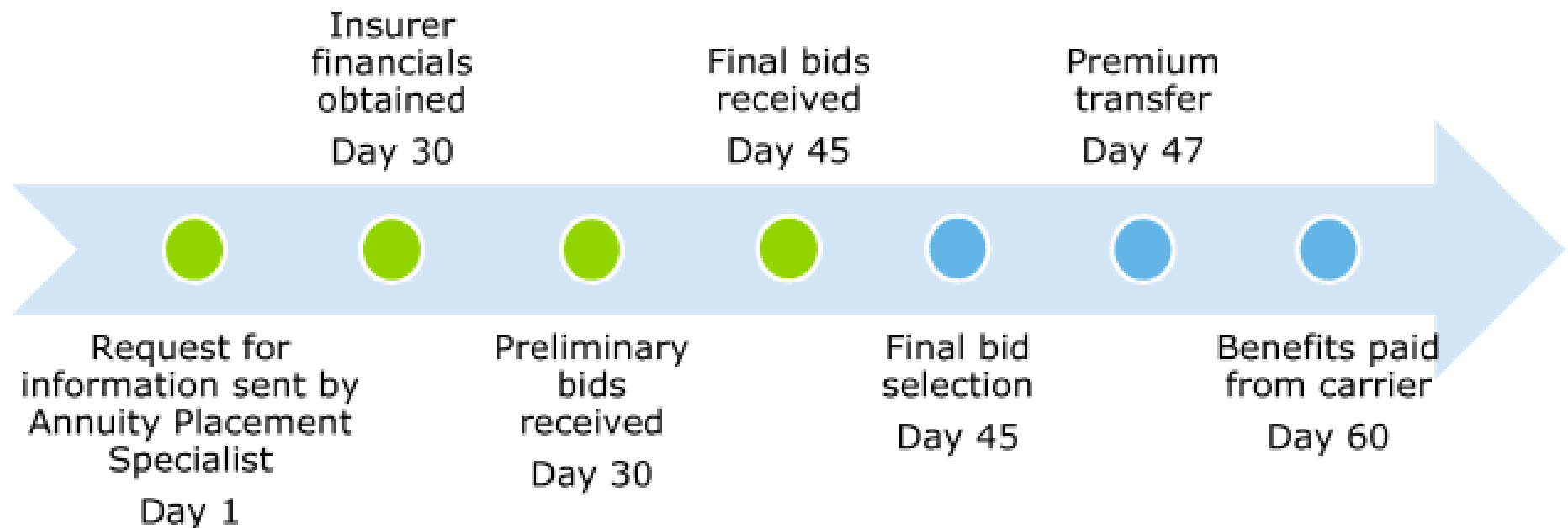


## II. PRT Transition Execution Dynamics

# Bidding Process Summary

---

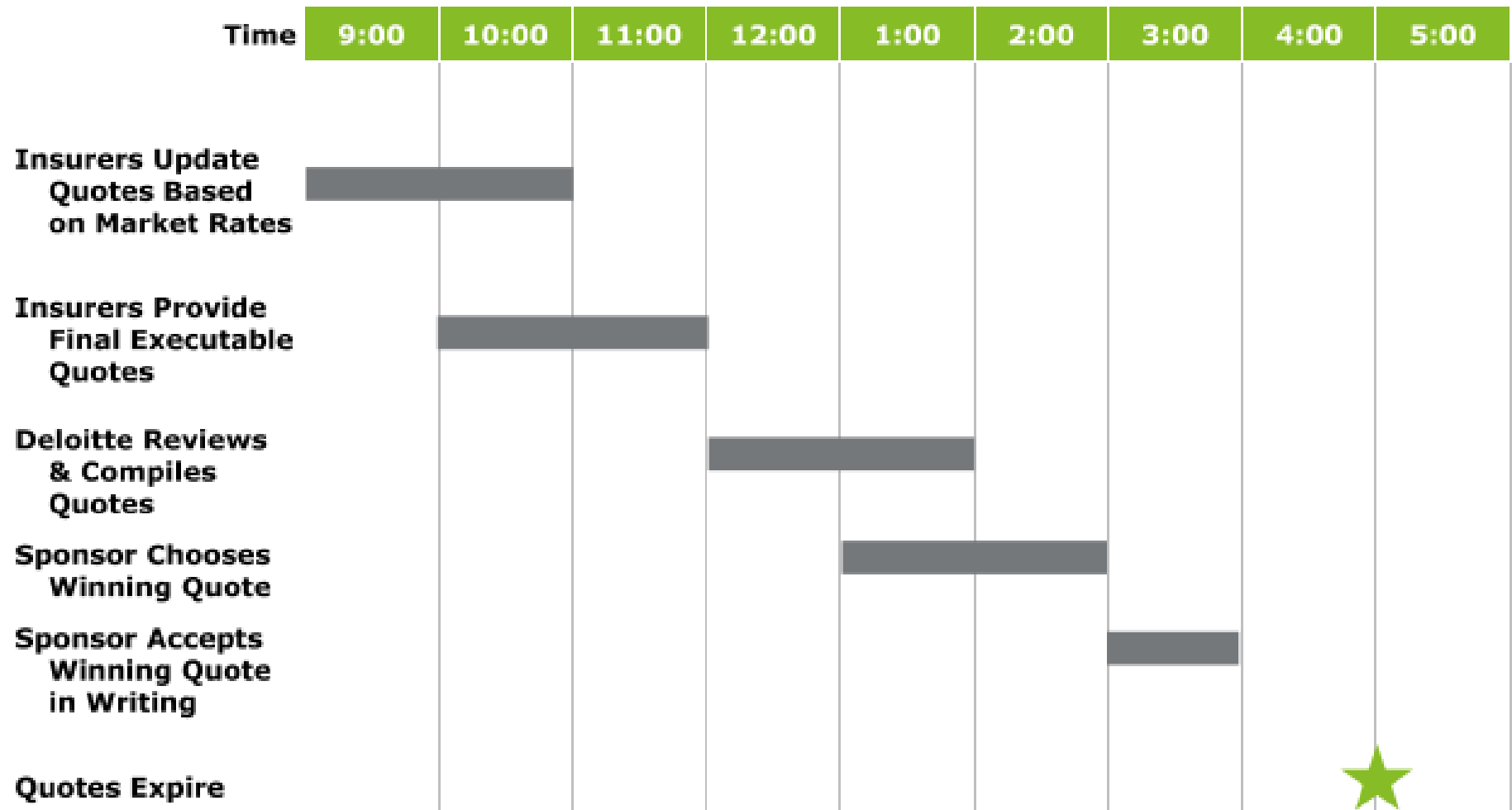
- An Annuity Placement Specialist works with a Plan Sponsor on the Annuity Provider Selection Process as part of the termination of the Plan Sponsor's Pension Plan
- Insurer information is provided to Placement Specialist by SNL to assess the financial strength of the Annuity Providers



***Final bids to be received on Day 45***

# Sample Final Bid Day

## Illustrative Timeline



## Case Study – Retiree Annuity Placement

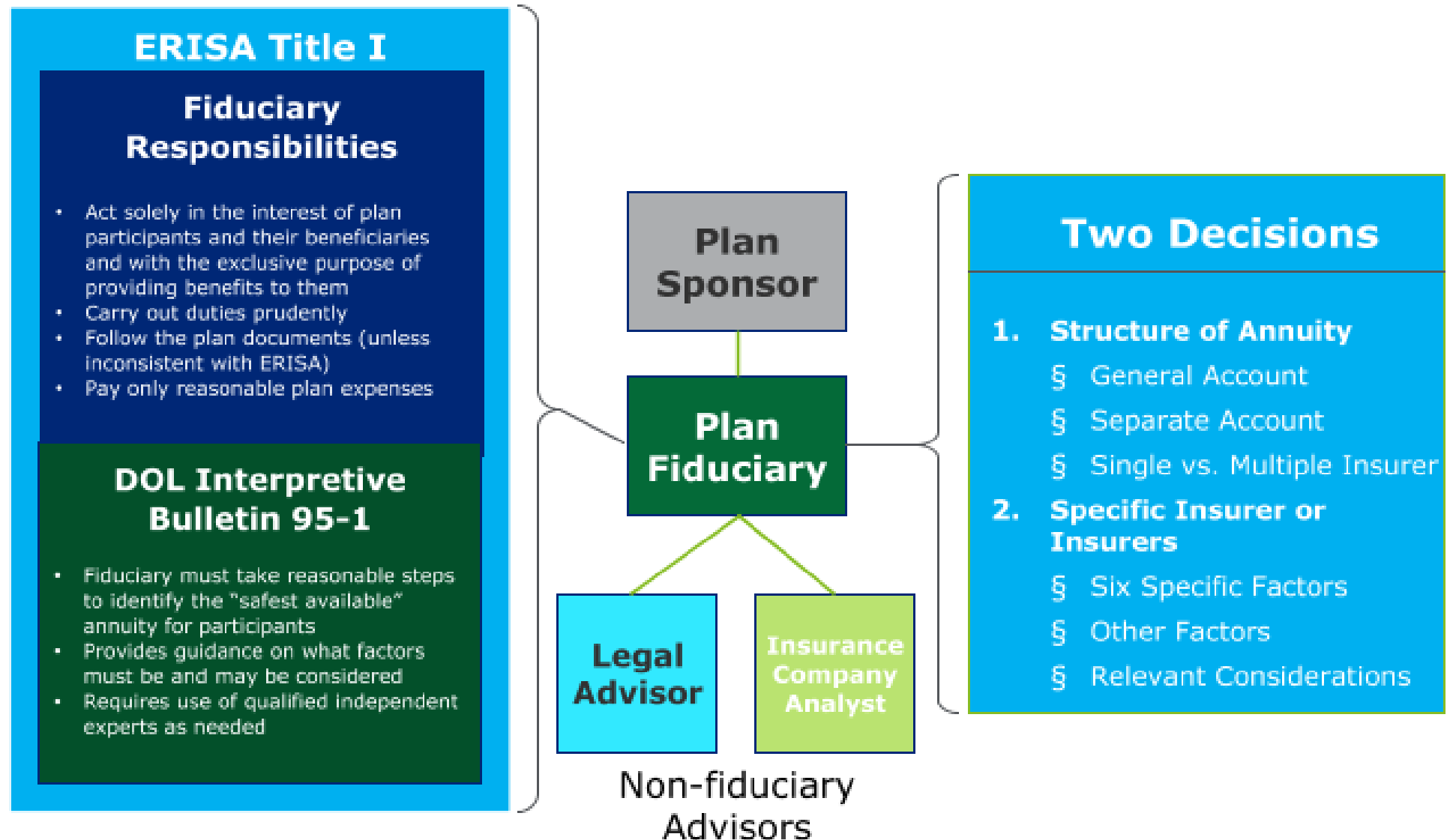
Insurer	Retiree Premium	US GAAP Liability (PBO)	Premium Above US GAAP Liability
<b>Insurer #1</b>	\$18,280,000	\$18,325,000	-0.25%
<b>Insurer #2</b>	\$19,110,000	\$18,325,000	4.3%
<b>Insurer #3</b>	\$19,780,000	\$18,325,000	7.9%
<b>Insurer #4</b>	\$18,860,000	\$18,325,000	2.9%
<b>Insurer #5</b>	\$19,200,000	\$18,325,000	4.8%
<b>Insurer #6</b>	\$20,260,000	\$18,325,000	10.55%
<b>Insurer #7</b>	\$19,700,000	\$18,325,000	7.5%
<b>Insurer #8</b>	\$18,930,000	\$18,325,000	3.3%
<b>Insurer #9</b>	\$19,290,000	\$18,325,000	5.25%
<b>Insurer #10</b>	<b>Declined to Bid</b>	\$18,325,000	N/A

Deloitte completed an annuity purchase for a retiree only population:

- 9 out of the 10 insurers in the market chose to bid on the annuity purchase.
- 1 Insurer came in with a quote below the US GAAP Liability, however this was due to an investment on their part, and should not expect to be duplicated in the future.
- The remaining insurers were *3% to 11% above the US GAAP Liability*.
- For this purpose, the US GAAP Liability assumes the new RP2014/MP2014 mortality tables, which we expect the majority of plan sponsors to adopt at the date of their next valuation.
- There are a number of newer insurers who were more than willing to bid aggressively on a retiree only population. Carving out the retirees prior to an official plan termination is a strategy that could save money.

# Group Annuity Purchase - Overview

***Within the context of ERISA and DOL Interpretive Bulletin 95-1 guidance, the plan sponsor and fiduciary must select an annuity structure and specific insurer or insurers.***



# Choosing an Insurer

---

The U.S. Department of Labor Interpretive Bulletin 95-1 (DOL 95-1) sets guidelines for a plan fiduciary to follow in selecting a provider of the “safest available annuity”

The Plan Fiduciary must select the “safest available annuity” provider for their participants. Their decision must be solely in the interest of plan participants and their beneficiaries and with the exclusive purpose of providing benefits to them.

Factors 1-6 of the DOL 95-1 Bulletin are as follows:

1. The quality and diversification of the annuity providers’ investment portfolio
2. Size of the Annuity Providers versus the proposed contract
3. Level of insurer’s capital and surplus
4. Lines of business and other liability exposures
5. The structure of the annuity contract, such as separate account products, and any guarantees
6. The availability of additional protection through state guaranty associations and extent of guarantee

**Other relevant considerations beyond the “safest available” should be considered when appropriate, such as the ability of the insurer to administer the plan.**

## Structural Enhancements for Different Benefit Sizes

*The impact of state guaranty association coverage varies based on the type of structural enhancement used and based on the size of participants' benefits.*

Scenario Assumptions	Participant Loss with Present value benefits = \$1,000,000	Participant Loss with Present value benefits = \$500,000
<b>General account</b> <ul style="list-style-type: none"> <li>90% Funded</li> <li>\$250,000 SGA Coverage</li> </ul>	<b>\$75,000</b> = $(1-90\%) \times (\$1,000,000 - \$250,000)$	<b>\$25,000</b> = $(1-90\%) \times (\$500,000 - \$250,000)$
<b>Separate account</b> <ul style="list-style-type: none"> <li>Sep Acct 80% funded</li> <li>Gen Acct 90% funded</li> <li>\$250,000 SGA Coverage</li> </ul>	<b>\$15,000</b> = $(1-90\%) \times (1-80\%) (\$1,000,000 - \$250,000)$	<b>\$5,000</b> = $(1-90\%) \times (1-80\%) (\$500,000 - \$250,000)$
<b>Two Insurers</b> <ul style="list-style-type: none"> <li>General Account</li> <li>\$250,000 SGA Coverage</li> <li>One insurer insolvent &amp; 90% funded</li> </ul>	<b>\$25,000</b> = $(1-90\%) \times (\$1,000,000/2 - \$250,000)$	<b>\$0</b> = $(1-90\%) \times (\$500,000/2 - \$250,000)$

# Administration

## ***Other than Financial Strength, Benefits Administration Service is the Most Important Factor in the Fiduciary Selection of an Annuity Provider***

Service Element	Why It's Important	Key Considerations
Set up	Plan participants should not experience disruption, inconvenience or angst when the responsibility for administering their pension benefits transitions to the insurer	<ul style="list-style-type: none"> <li>• Communications</li> <li>• Coordination</li> <li>• Resources</li> <li>• Project Management</li> </ul>
Call Center	Plan participants should receive convenient, knowledgeable, efficient and courteous customer service	<ul style="list-style-type: none"> <li>• Accommodation</li> <li>• Responsiveness</li> <li>• Staff Experience</li> <li>• Customer Satisfaction</li> </ul>
Procedures & Standards	Plan participants should receive accurate, fair and consistent treatment. There should be confidence that the insurer can deliver the services it promises.	<ul style="list-style-type: none"> <li>• Procedures Manual</li> <li>• Performance Standards, Statistics</li> <li>• Breadth of Services</li> <li>• Complaint Log Maintenance</li> </ul>
Versatility	Plan participants should not suffer a loss of accuracy or convenience due to the uniqueness of their plan's benefit structures or procedures	<ul style="list-style-type: none"> <li>• Breadth of Experience</li> <li>• Operational Flexibility</li> <li>• Exception Procedures</li> </ul>
Systems	Good systems accommodate excellence in all of the above. They should be reliable and should protect sensitive information	<ul style="list-style-type: none"> <li>• Functional Integration</li> <li>• Systems Flexibility</li> <li>• Back-up / Disaster Recovery</li> <li>• Cybersecurity</li> </ul>



# Administration: Due Diligence Process

Combination of Request for Information and on-site inspection and interviews designed to determine:

- Experience of the staff and the business unit
- Capabilities of systems and call center
- Efficacy of operations and procedures
- Quality of service delivered to participants
- Adequacy of Precautions: Disaster recovery plan; system back-ups; cybersecurity controls

Request for Information objective is to collect as much relevant information as practical prior to on-site review

On-site Review objectives are to inspect Call Center and systems, and to confirm validity of RFI responses via interviews and observable operations

## Sample RFI Questions / Requests

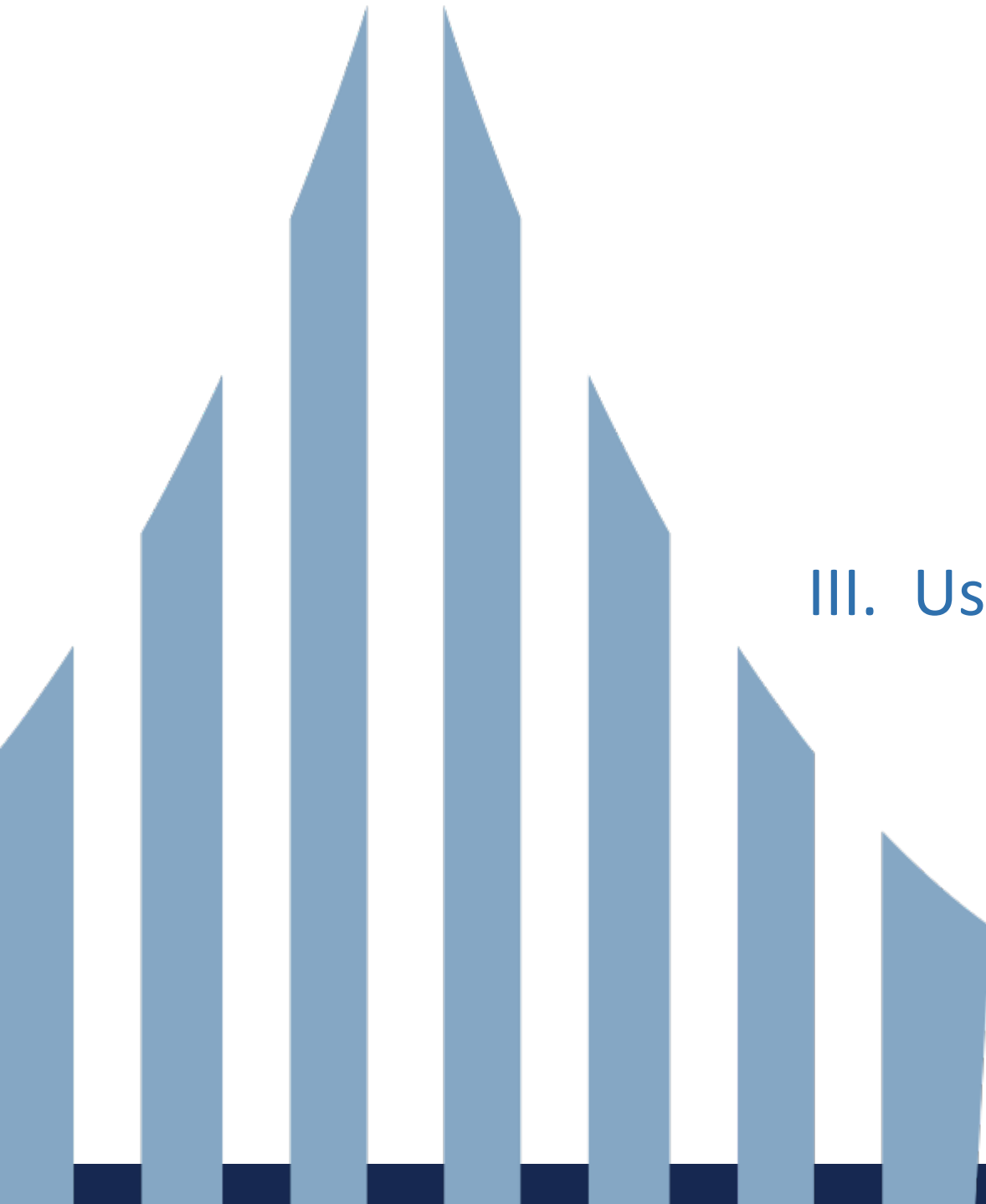
- Provide organizational structure of administration unit
- Provide experience, qualifications of all team members
- Inforce data: number of contracts, participants, checks
- Call center: provide hours, details of language or handicap accommodations
- Provide service standards for all routine procedures
- How do you measure participant satisfaction?

## Sample On-site Review Items

- Observe operation of call routing system
- Participant website capabilities demonstration
- Demonstrate procedures for providing early retirement and optional form calculations
- Demonstrate how changes are made on system data
- Inspection of complaint log
- Overall impression of work environment, morale



### III. Use of Predictive Analytics



# Potential Uses for Predictive Analytics In the PRT Market

Analytics today should be used whenever growth and risk have a balance point, such as needing to test innovative ideas without stretching business as usual. Based on success in other areas of insurance, there appears to be some compelling applications for pension risk transfer business.



## Benefits for Growth-oriented Executives

- Provides first mover advantage in the PRT space
- Enables ability to bid low with confidence on cases with lower longevity risk
- Enhances negotiating position during the bidding process
- Improves understanding of the expected experience of in-force business to free up capital to allow for increased capacity
- Provides enhanced data to allow selective use of re-insurance to free up capital
- Provides innovative platform for new analytics applications as PRT business evolves

## Potential PRT Applications

New Business

In-Force Liability Management

Deferred Lives Management

Re-insurance



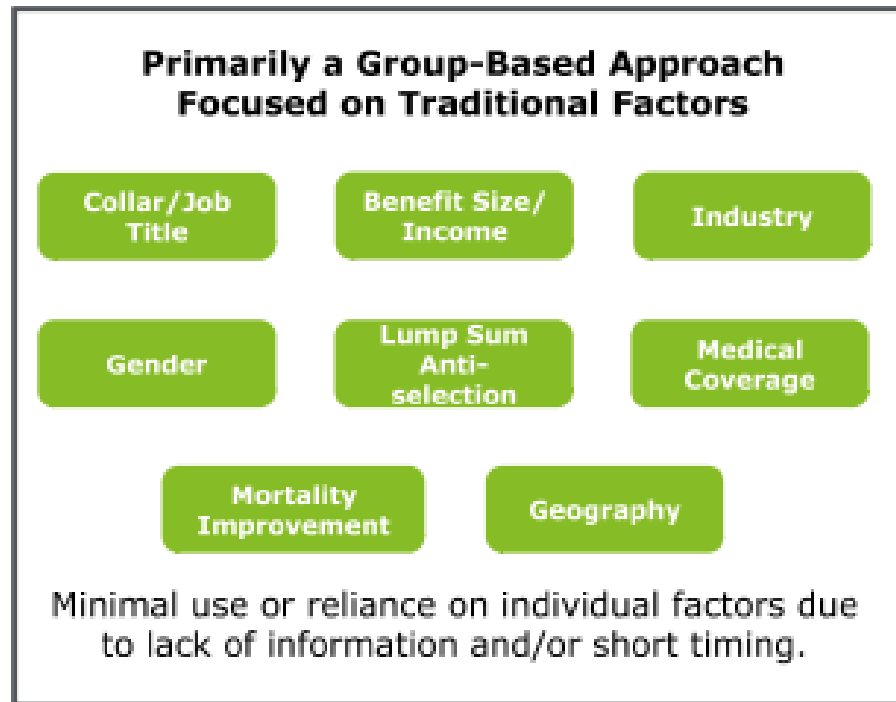
## Benefits for Risk-oriented Executives

- Provides better understanding of new deals with poor longevity risks
- Enhances understanding of expected longevity experience for in-force policies
- Increases ability to anticipate benefit commencement timing and form election for deferred lives
- Facilitates ability to selectively use re-insurance on policies with poor risk profiles
- Improves credit and risk scoring to help detect potential fraud of in-force policies

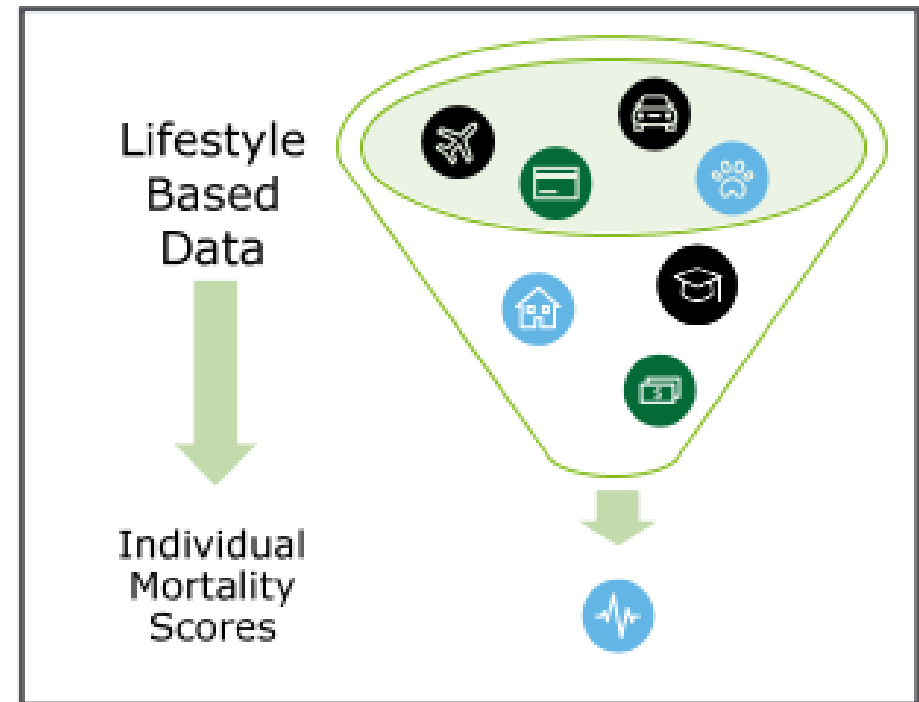
# Predictive Analytics for Pricing Group Longevity Risk

Longevity risk is one of the most significant risks associated with pricing of group annuities for pension risk transfers and structured settlements. Enhanced analytics around longevity can provide a significant competitive advantage by helping to win more new business and avoid or minimize risk.

## Current State



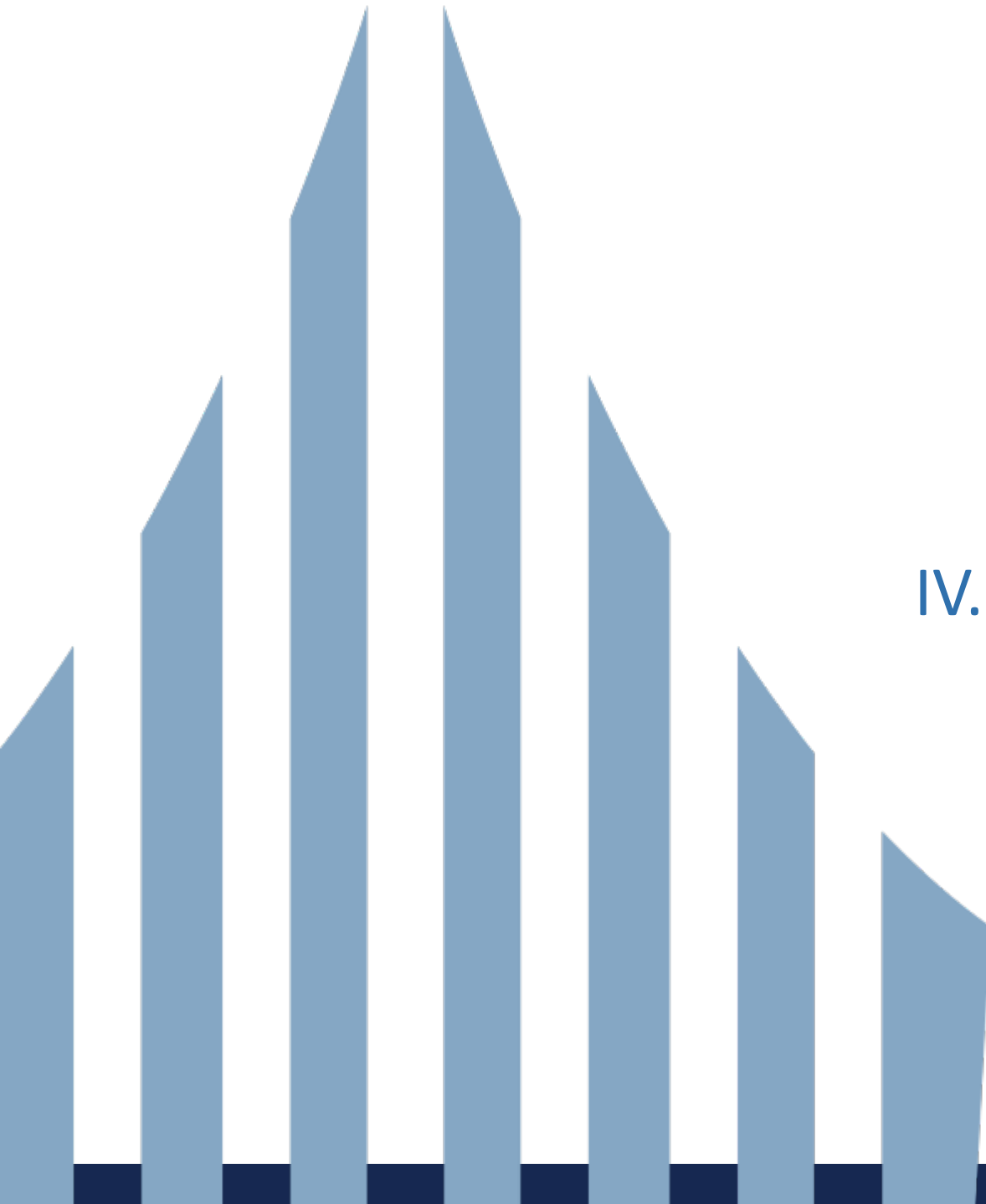
## New Approach



**Developed and enhanced for almost a decade, Deloitte's predictive analytics tool for insurers, Deloitte Intelligent Growth (DIG powered by Deloitte™), ranks the relative health of the US adult population using name and address and third party data to provide competitive advantage.**

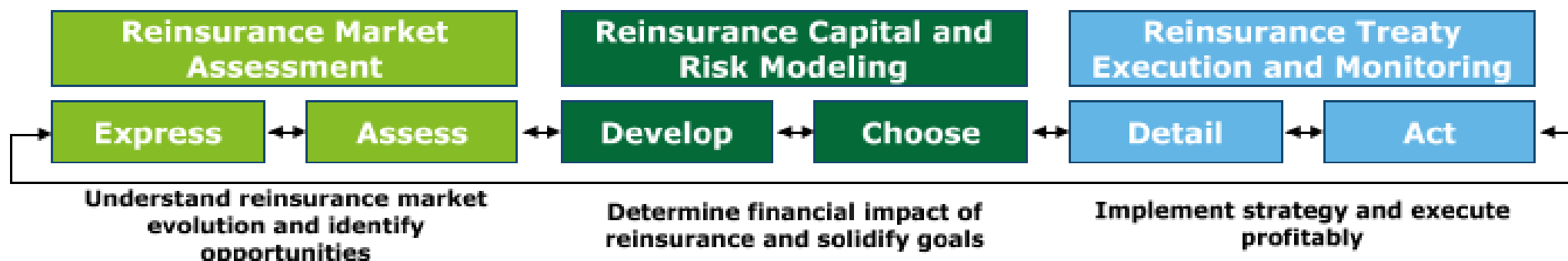


## IV. Use of Reinsurance



# Reinsurance Strategy Execution

Reinsurance Markets are Dynamic, Affecting Strategy Changes Across the Life Insurance Industry



## 1. Understanding the Market

- § In a consolidating industry, the market has hardened and regulatory uncertainty with respect to the use of financial reinsurance for excess reserve relief is waning
- § Reinsurers are not interested in policyholder behavior risk, and are instead opting for mortality only covers

## 2. Articulating Prospective Economic Value and Financial Goals

- § Understanding which economic capital metrics are the most significant to the business
- § Models can inform commercial negotiations of various levers/forms of reinsurance protection

## 3. Proof of Concept (POC) Modeling

- § Identify blocks of business prospectively reinsured and create deal models for prospective transactions with built-in algorithms to satisfy financial goals

## 4. Execute Strategy and Evaluate Preliminary Success

- § Deploy deal models on live transactions and report financial impacts

## 5. Monitor Transactions and Mine Data

- § Study transaction performance and employ data warehousing to inform ongoing strategic decisions with respect to inforce management

# Strategic use of reinsurance

There are varying strategic objectives that drive organizations to participate in the reinsurance market



## **Risk transference and risk limits**

Insurance risk is shifted from the reinsured to the reinsurer



## **Capacity expansion**

Allows the reinsured to increase the volume of written insurance



## **Corporate capital management**

Use of financial tools to maximize operating results from year to year



## **Diversification**

Spreads loss exposure over diverse set of products and/or markets



## **Product exit strategy**

Provides the insurer a way to reduce / eliminate a product while potentially earning a profit

Neither Life nor P&C insurance companies expect significant change in the foreseeable future relating to their strategic uses of reinsurance, but both **promote the importance** of the **strategic use of reinsurance** for **catastrophe, corporate capital management, reducing earnings volatility**, and the need to **manage risk limits**

# Reinsurance Trends in the Life and P&C Industries

Reinsurance markets are evolving as the regulatory, economic, and insurance industry environments change over time. Peering into the Life and P&C industries, we wish to address how reinsurance fits into today's insurance market, and its role in the future

## Life Reinsurance Market Trends

There has been **significant consolidation** in the life reinsurance industry, contributing to **considerable price hardening**

**Regulatory uncertainty** is **easing**, which is expected to result in increased reinsurance use

As **regulatory uncertainty subsides**, the use of **unauthorized reinsurance** is expected to **increase**, with a focus on unaffiliated treaties

**Mortality increases** and a recent **reduction in American life expectancy** underscore the increasing **value of data** and **advanced analytics**

## P&C Reinsurance Market Trends

Reinsurance **pricing** has **decreased** somewhat over the past five years due to **strong capital positions** for insurers and the entry of **alternative capital**

There was a **decline** in **reinsurance use** from 2011 to 2014; this trend **reversed in 2015**, as it became more attractive on an adjusted return basis

There has been a **shift in focus** – buyers formerly focused on **capital management** are now focusing on **mitigating the volatility of returns**

**Consolidation is expected**, which is anticipated to **improve pricing leverage for sellers** as capacity continues to be **removed from the marketplace**



# Regulatory developments in the Life industry

There has been a pause in innovation as the industry has waited for regulators to get their arms around capital adequacy in a post-financial crisis world. Reinsurance should be uniquely affected now that regulators are moving forward with a more clear understanding

## **Regulatory developments to date**

- New York State has led the trend of U.S. regulators looking to curb the tendency of insurers looking to use reinsurance for what is considered to be redundant reserve relief
- In response to regulatory uncertainty, companies on both the direct insurance and reinsurance sides were cautious about how financial reinsurance might evolve
- This uncertainty caused a gradual decline in the use of financial reinsurance, particularly with respect to captives

## **A look into the future**

- As the cloud of uncertainty fades, new reinsurance solutions are beginning to emerge, and we fully expect creative and innovative reinsurance solutions to emerge in the foreseeable future
- A confluence of factors has caused and is expected to cause, growth in the Pension Risk Transfer (PRT) markets in the US. We are reaching a tipping point where the direct insurers are seeking reinsurance and reinsurers have growing appetites