

innovating>
PENSION RISK TRANSFER STRATEGIES

PENSION RISK TRANSFER

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Agenda



- **Pension Risk Transfer (PRT) Business Opportunity**
 - Background & Context
 - Market Opportunity – UK versus US

- **PRT Products**
 - Pension Risk Reduction Path & Product Solutions
 - Buy-In versus Buy-Out
 - Longevity (Re)Insurance

- **Longevity Reinsurance – Pricing Platform**
 - Pricing Framework & Financial Modeling
 - Fully Integrated Stochastic Modeling

Background & Context

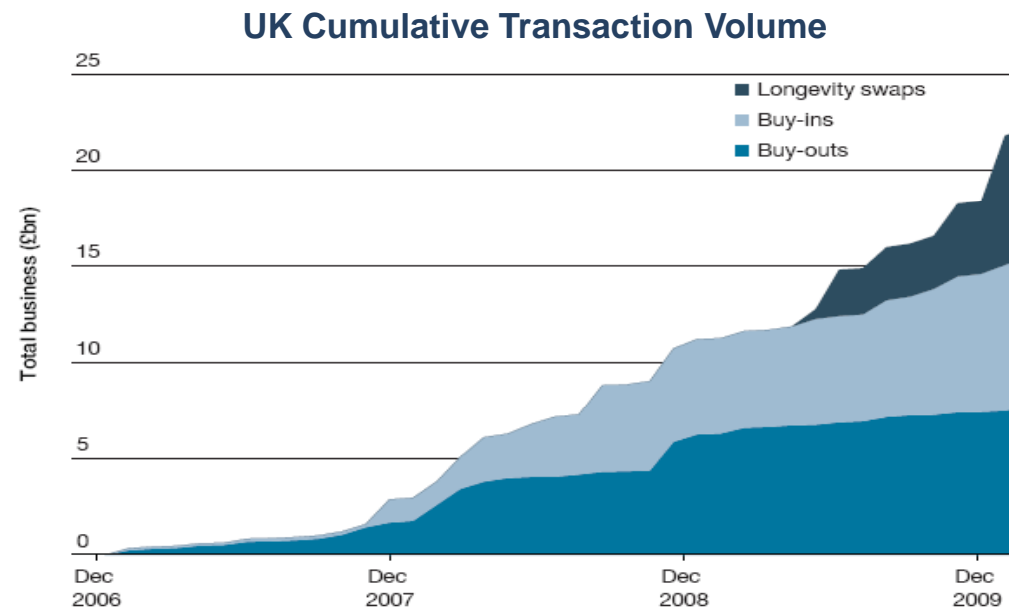


- **Evolution** of Employee Benefits. Retirement Programs and Pension Laws
 - Impact of **2008 Financial Crisis**
 - **Business Case** for Transacting
 - **Corporate Finance Case** for Transacting
 - Why Now?
 - UK vs US Markets
-

UK Market Explosion



- The UK Pension Risk Transfer market is the most vibrant in the world with:
 - Over **£10 billion per year** in transaction volume (more than five times the US); and
 - A very **broad range of pension risk transfer products** and solutions available to plan sponsors
- The **fastest growing** products over the last several years have been direct **Longevity Insurance** Transactions



Source: Insurance company data and LCP research

UK Techniques Migrate to the US

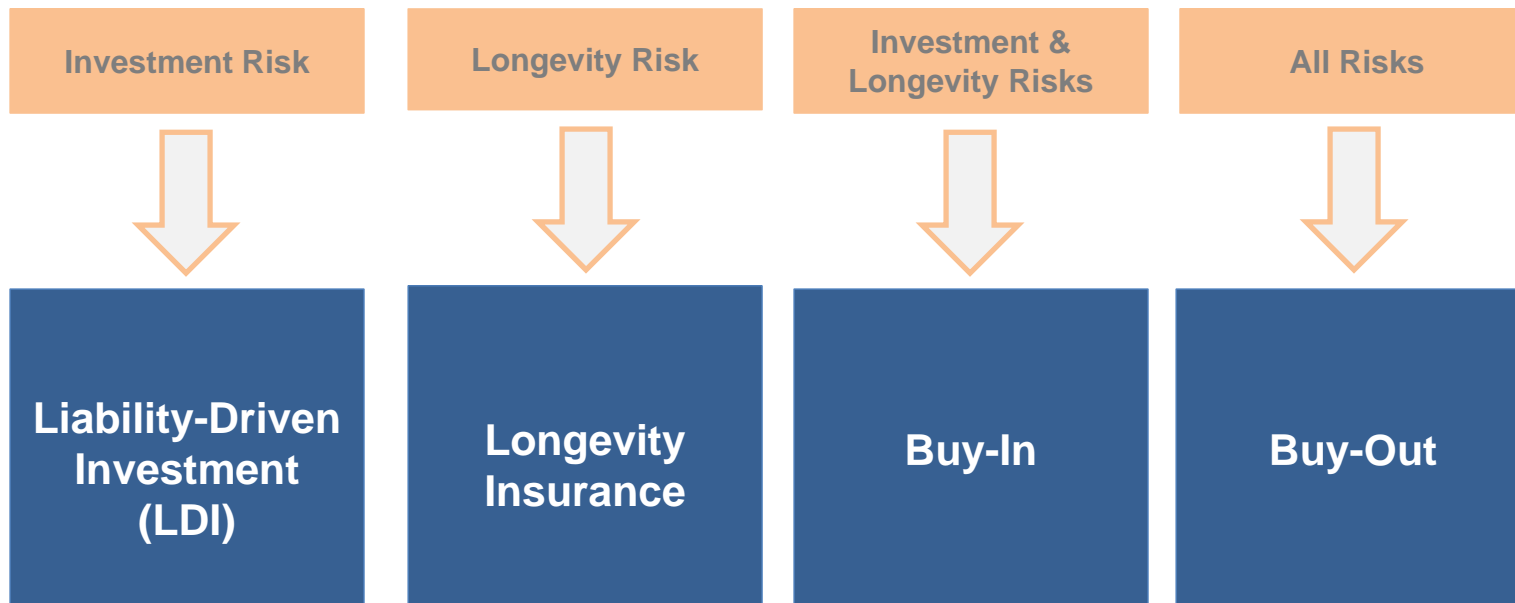


- Both UK techniques and attitudes toward risk are making their way to US
- Prudential is working with leading plan sponsors in the US to address pension risk
 - Many US plans have reduced public equity targets and LDI is gaining in popularity
 - Buy-Out and Buy-In solutions are also gaining interest and a few sophisticated plan sponsors are preparing to transact

Risk Reduction Path & Product Solutions



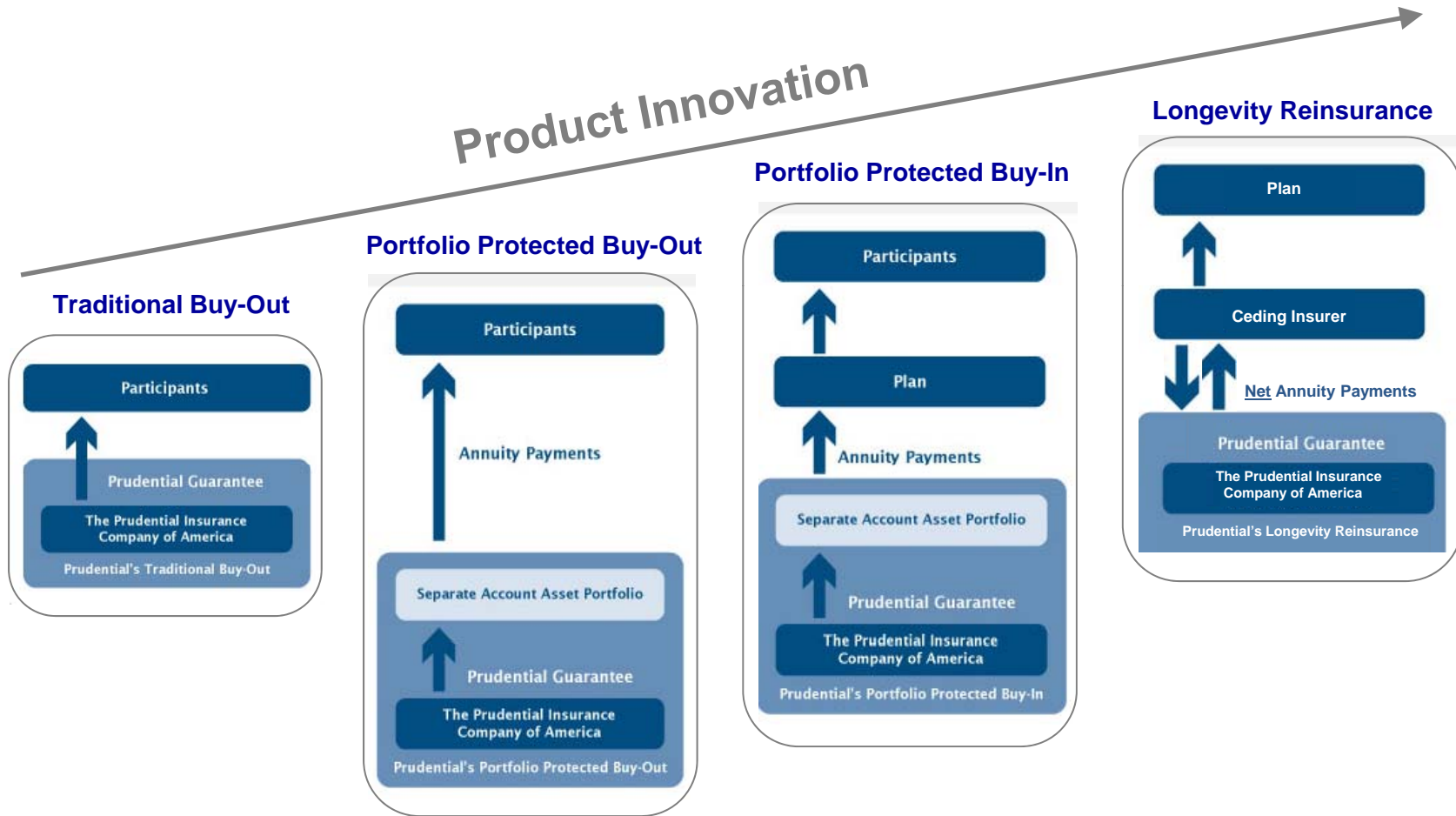
Pension Risk Reduction Path



Prudential's Product Platform



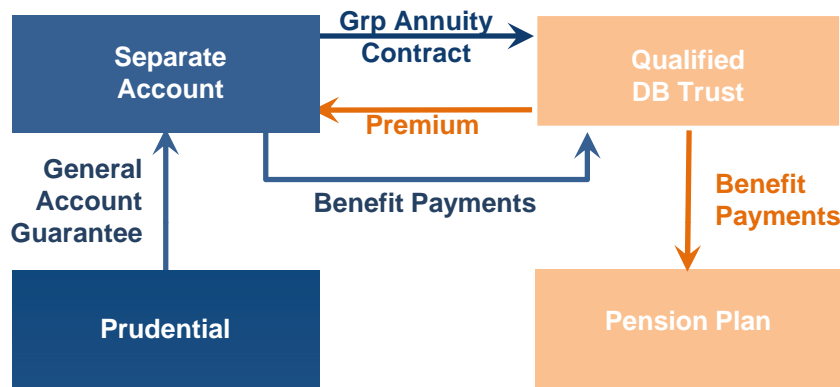
Product Innovation



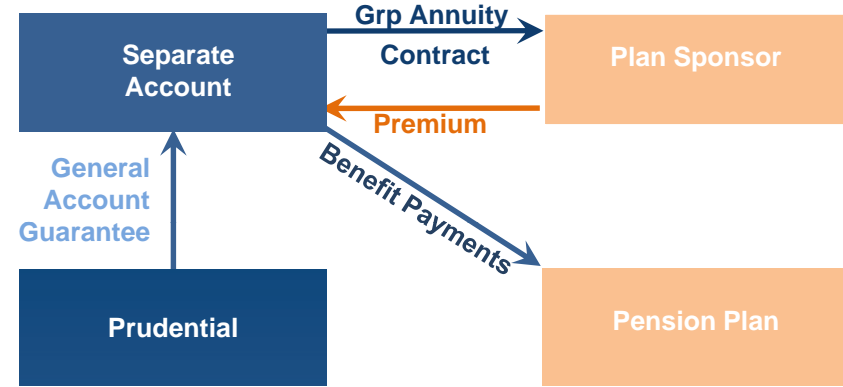
Buy-In vs Buy-Out



Buy-In



Buy-Out



Buy-In

Ideal for **Under-Funded** Plans

Group Annuity held as a **Plan Asset**

Minimizes Accounting & Funding **Volatility**

Prudential takes all **Asset & Longevity Risk**

Revocable & Convertible to Buy-Out

Sponsor Has “Double-Barreled” **Credit Protection**

No **Settlement Accounting**

Buy-Out

Ideal for **Over-Funded** Plans

Group Annuity **Settles the Liability**

Completely Eliminates **Volatility**

Prudential takes all **Asset & Longevity Risk**

Irrevocable

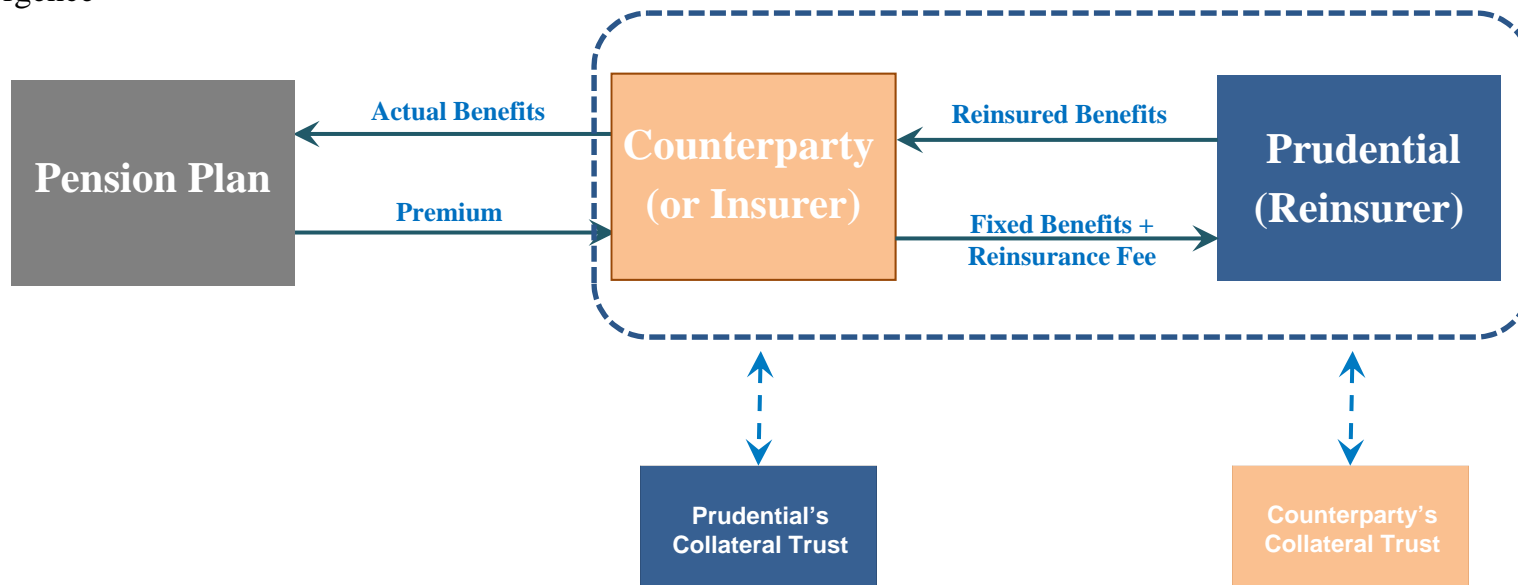
Participants Has “Double-Barreled” **Credit Protection**

Settlement Accounting triggered

Longevity Reinsurance – Illustrative Structure



- In a Longevity Reinsurance Agreement, the parties agree to a two-way exchange of payments
 - The Ceding Insurer pays **fixed benefits** plus reinsurance fees determined at contract inception
 - The Reinsurer (Prudential) pays **actual benefits** that are owed to plan participants and their beneficiaries
- Primary risks assumed by Prudential are that:
 - Covered persons **live longer than expected** and
 - Greater number of covered persons are **married at time of death** than expected
 - Spouses at the time of death are **younger than expected**
- **Other risks** to profitability (e.g. interest rate, FX and counterparty) are **contingent upon** unfavorable longevity emergence



Longevity Reinsurance – Pricing Framework



- **Financial Foundation**
 - Principles Based Approach
 - **Mortality Studies**
 - Plan's Experience
 - Pension Population Experience (Post Code Models)
 - Mortality Improvement Assumptions
 - Demographic Assumptions
 - **Asset Liability Management Framework**
 - Investment & Hedging Instruments
 - **Financial Modeling**
 - Fully Integrated Stochastic Modeling
 - Tail Analysis
 - Financial Results
 - **Deal Structuring & Negotiation**
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Stochastic Modeling of Longevity Risk

