Multiple Insurer Approach to Retirement Income Guarantees

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Milliman – Background

- Global independent actuarial consulting firm
  - 2,100 employees; 49 offices worldwide

- Financial Risk Management (FRM) Practice
  - Founded in 1998
  - Industry leader in risk management for retirement savings guarantees
  - 75 consultants with backgrounds in: Capital Markets, Technology, Quantitative Development, Actuarial

- Providing hedging services for over 35 major insurers

- Leading provider of risk management services to the life insurance industry

- Retirement Guarantee Network
  - Integrated technology, administration & investment advisory services to support guarantees in the 401(k), IRA, and retail markets
Reinforcing the Guarantee

RGN™ addresses the counterparty & financial risk management requirements of the large-plan market

1. Guarantees are backed by multiple insurers
2. Collateralization of guarantee fair value
3. Market risk is neutralized through industry-standard hedging techniques
Guarantee Program Structure

- Fund Manager
- Recordkeeper
- 401(k) Plans
- IRA Participants
- ABC Life & Separate Account
- Milliman Guarantee Administrator
- Group Annuity Contract
- Lead Insurer
- Reinsurance Pool (3-5 companies)

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Guarantee Program Structure

- Fund Manager / Recordkeeper retains client-facing role

- Lead Insurer (ABC Life)
  - Writes the guarantee
  - Reinsures 50% of the risk to the Pool of reinsurers
  - Enters into a Group Annuity Contract with each Plan Sponsor
    • Plan participants with a guarantee have a certificate to the contract
  - Establishes a Separate Account
    • Collects premiums
    • Pays claims
    • Holds the hedges which support the guarantees

- Pool of 3 to 5 insurers / reinsurers assumes 50% of the risk from ABC Life via reinsurance treaties

- Assets covered by the guarantee stay in the 401(k) plans
Guarantee Program Structure – Cont’d

Collateralized Separate Account

- On a monthly basis:
  - Milliman calculates the fair value of the liability
  - Each insurer / reinsurer is responsible for funding its proportionate share of the Separate Account

- The Separate Account retains a portion of past profits to mitigate risk in the event of default of a participating insurer / reinsurer

- If an insurer becomes insolvent, they are removed from the Program and their share is assumed by the remaining insurers / reinsurers
  - Since the Separate Account is fully funded, they are not stepping into a loss situation
Guarantee Program Structure – Cont’d

- Milliman is the Guarantee Administrator
  - Execute the hedge transactions needed to support the guarantees
  - Determine mark-to-market & separate account funding requirements
  - Calculate premium & claim cash flows
  - Calculate the collateralized payments required from insurers / reinsurers
  - Calculate FAS133 & other reporting requirements for insurers / reinsurers
  - Conduct monthly meetings with ABC Life and the reinsurers to review financial performance, identify trends, etc.
Examples

Assumptions
- $1B in underlying guaranteed funds as of 1/1/2010
- Participant annual guarantee premium: 1%
- ABC Life (Lead Insurer) has 50% of risk
- Pool of 4 reinsurers has 50% of risk (12.5% each)
Example 1

- **1st qtr 2010: Market declines 5%**
  - Guarantee premiums $2.5M
  - Hedge gains 19.0M
  - Assets in Separate Acct $21.5M
  - Fair value of guarantee $20.0M
  - Assets in Separate Acct 21.5M
  - Profits to be released $1.5M

- **Profits released**
  - ABC Life: (50%) $750,000
  - Reinsurer A: (12.5%) 187,500
  - Reinsurer B: 187,500
  - Reinsurer C: 187,500
  - Reinsurer D: 187,500
  - Total $1.5 M
Example 2

- **1st qtr 2010: Market declines 20%**
  - Guarantee premiums $2.5M
  - Hedge gains $120.5M
  - Assets in Separate Acct $123.0M
  - Fair value of guarantee $125.0M
  - Assets in Separate Acct $123.0M
  - Required capital injection $2.0M

- **Required capital injection**
  - ABC Life (50%): $1,000,000
  - Reinsurer A (12.5%): 250,000
  - Reinsurer B: 250,000
  - Reinsurer C: 250,000
  - Reinsurer D: 250,000

  Total $2.0M
Summary

The approach relies on three basic techniques:

1. Guarantees are backed by multiple insurers
2. Collateralization of guarantee fair value
3. Market risk is neutralized through industry-standard hedging techniques

Feedback from large plan sponsors has been very favorable.

Questions