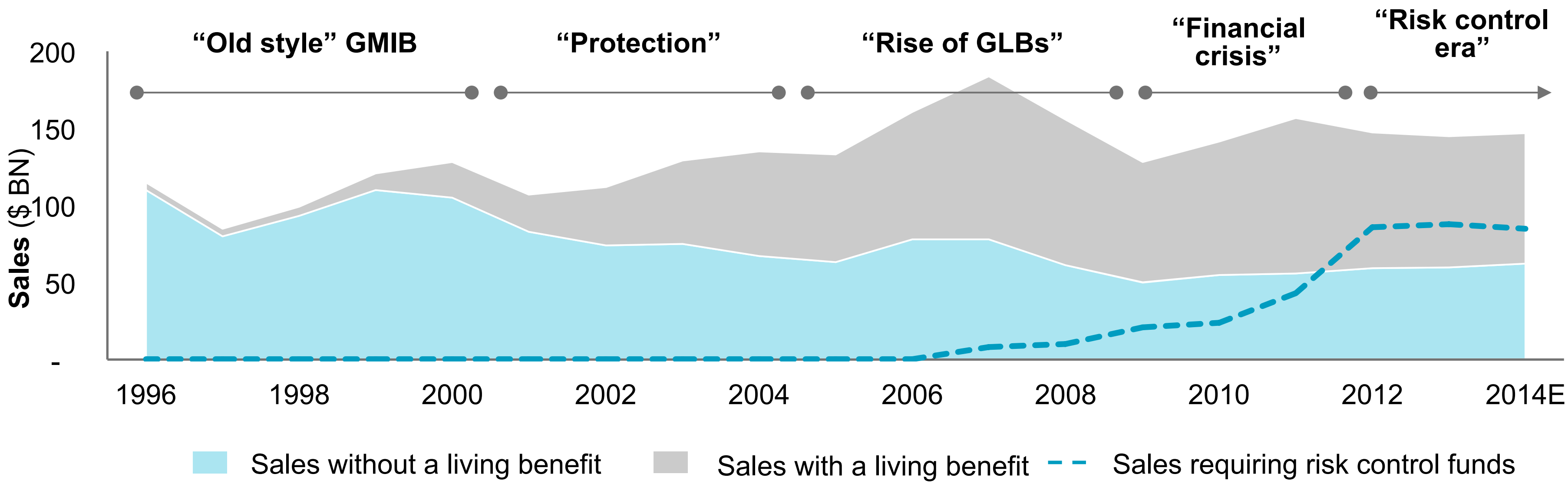
Agenda

1. Brief history of variable annuity product environment
2. Overview of recent Lifetime Withdrawal Benefit product economics
3. Two new benefit design levers
   - Risk control funds
   - Market-indexed benefits
4. Takeaways

VA sales continue to be driven by living benefits, although companies have buoyed efforts to grow non-GLB sales

US VA sales: 1996–2014E



	"Old style" GMIB	Protection era	Rise of GLBs	Financial Crisis	Risk control era
Product	• Tax-driven product • Early death benefits (GMDB)	• Accumulation benefit (AB) gains following • 'Old style' GMIB sales increase	• Withdrawal benefit invented; IB enhanced • Living benefits core to sales; "feature war"	• Sales decline with "flight to safety" • Writers scale back benefits	• Growth restored by heightened client need and new VA advisors
Funds	• Fund offerings key	• Dotcom bust – fund story fades	• Limited investment restrictions	• Shift to passive • More allocation restrictions	• Embrace of risk control funds

Source: IRI, LIMRA Living Benefit Election Rate Survey, JPMorgan. Share of sales requiring managed volatility based on sales of product filings

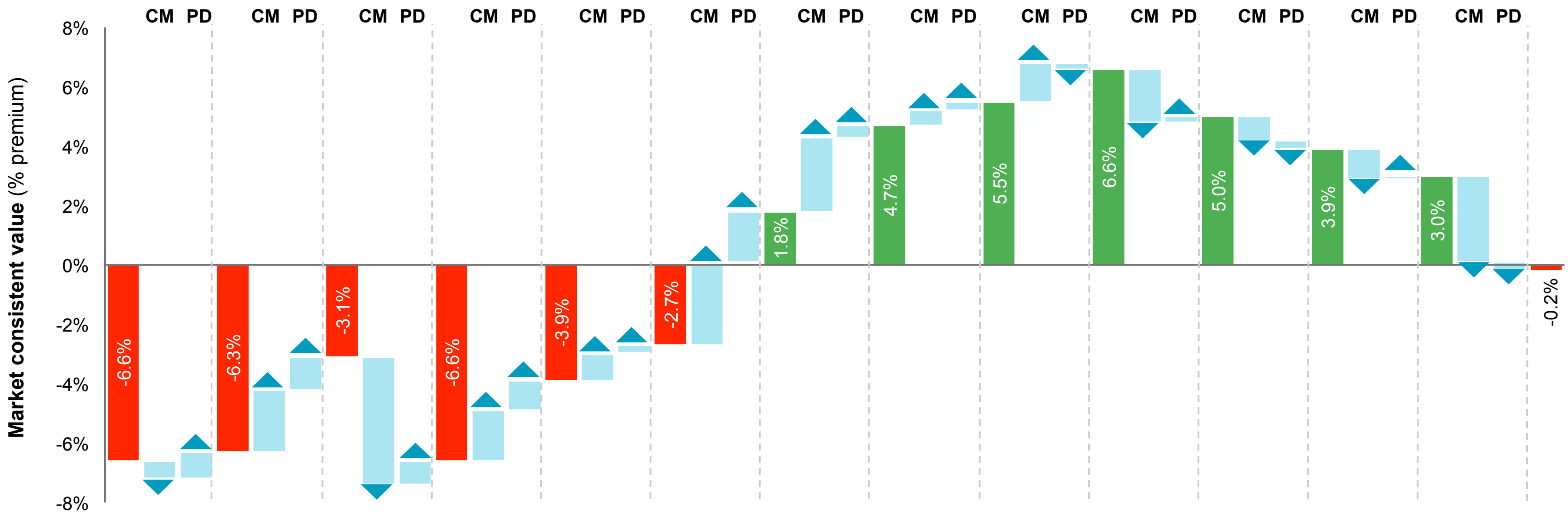
VA GLWB economics have declined from highs in 2013 and 2014

Product economics continue to be driven in large part by interest rates

Oliver Wyman VA profitability index

Lifetime WB products – Total contract

CM = Impact due to changes in capital markets
PD = Impact due to changes in product designs

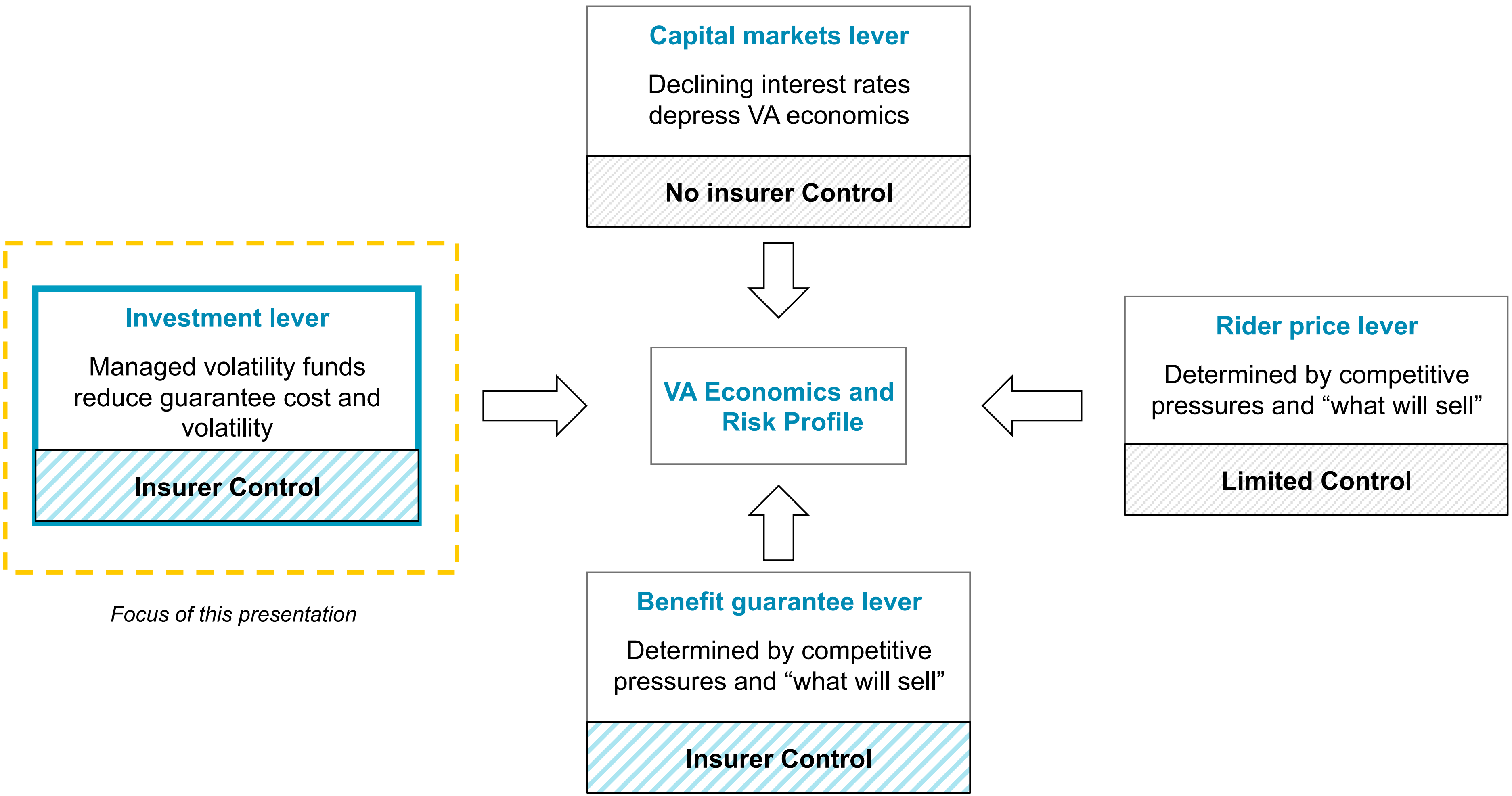


	Sept-11	Dec-11	Mar-12	Jun-12	Sep-12	Dec-12	Mar-13	Jun-13	Sep-13	Dec-13	Mar-14	Jun-14	Sep-14	Dec-14
10-year swap	2.11%	2.04%	2.23%	1.77%	1.67%	1.79%	2.01%	2.71%	2.79%	3.09%	2.86%	2.62%	2.64%	2.31%
5-year S&P vol	28%	28%	25%	26%	24%	23%	21%	22%	20%	20%	19%	18%	20%	21%

Change in margin between periods | Positive economic margin at period end | Negative economic margin at period end

Note: Analysis reflects a 50bps illiquidity premium for the discounting of the living benefit claim payouts. The impact of this premium is to raise MCVs by approximately 2%
Source: Oliver Wyman variable annuity service bureau

Recently, insurers have been using two principal levers to govern the risk profile of their products



Why use risk control funds?

	Trend	Observations
1	**Stabilize the P&L and balance sheet**	• Reduces the scope of the dynamic hedge programs • “Crisis protection”
2	**Lower hedge costs → greater benefits**	• Reductions in guarantee hedge costs relative to open architecture funds • Savings on hedge cost can be reinvested to generate stronger benefits to clients
3	**Less risk-sensitive GLWB designs**	• Lower level of exposure of new product margins to market volatility levels

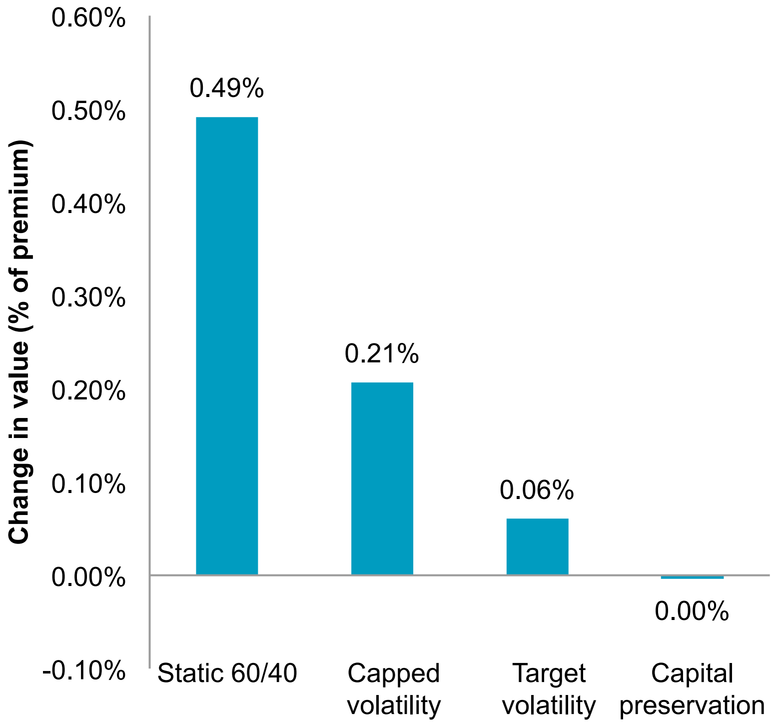
Five conceptual strategies dominate the risk control funds in use today

		Performance objective of fund	Prevalence ($ sales)
Contract-based	**CPPI**	Limit maximum downside loss based on individual contract account performance	~ 15%
Market-based drivers using futures	**Capped volatility**	Cap the expected volatility of fund returns at a defined level (e.g., 15%)	~ 10%
	Target volatility	Target a specific and constant level of volatility of fund returns (e.g., 11%)	~ 50%
	Capital preservation	Use fund returns to determine “hedge” changes in the cost of the company’s guaranteed benefits	~ 20%
	Traditional	Constant equity / bond allocations	~20%

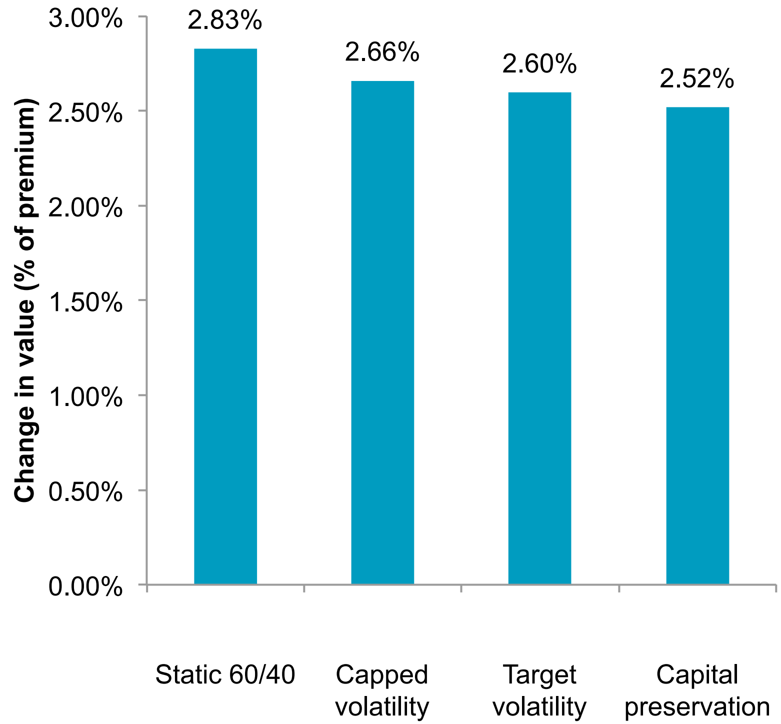
These funds reduce volatility exposure meaningfully; impact on interest rate exposure is modest

“Greeks” of the variable annuity guarantee liability over time

Vega (impact of a 1% reduction in long-term volatility)



Rho (impact of a +50bps parallel rate increase)

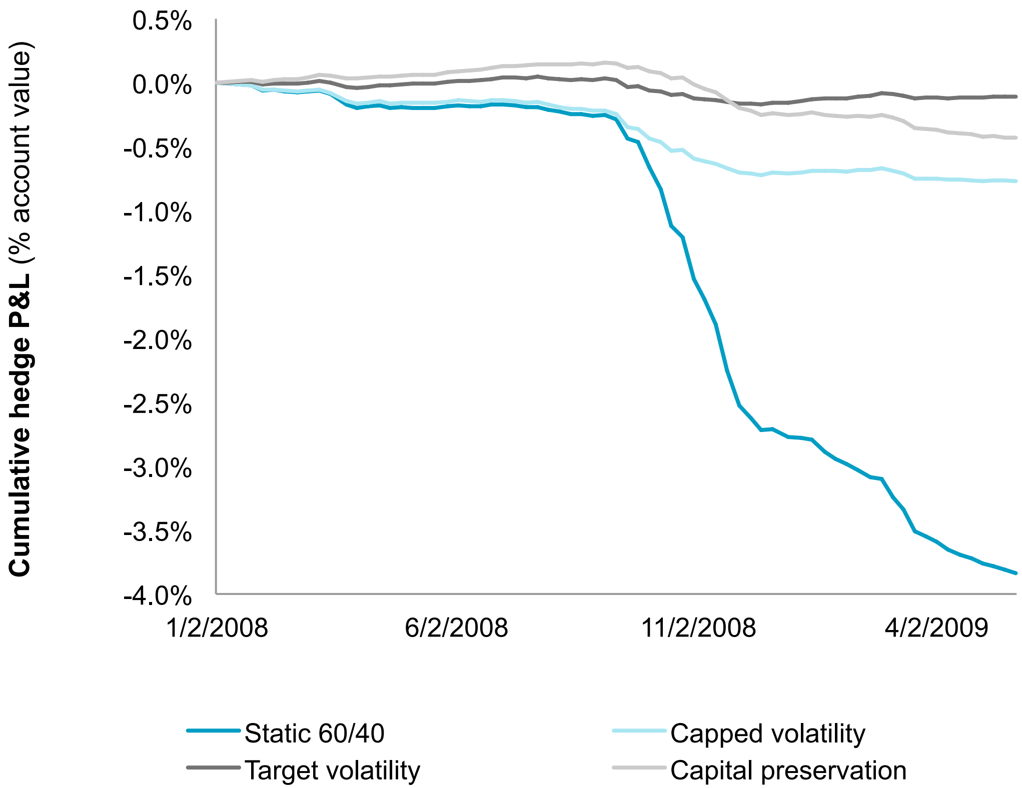


Source: Variable Annuity Service Bureau (funds applied to a standard industry Lifetime GMWB product in market as of 9/30/2012)

Moreover, risk control funds have the potential to dramatically improve insurer dynamic hedge performance during times of market turmoil

Simulated "two greek" dynamic hedge program performance

Financial crisis of 2008 and 2009



Observations

- Risk control strategies succeed in mitigating volatility-driven losses in the hedge programs ("gamma risk")
- Degree of improvement varies based on the type of fund and design of the hedge program

Challenges for risk control funds that need to be addressed

	Challenge	Description
1	**Performance benchmarking**	• Absence of robust performance benchmarks creates confusion around what constitutes "good" and "bad" performance • Relevant for mutual fund boards, distributors and clients
2	**Transparency**	• Expectations for fund performance are not well communicated • This includes both the risk control overlay and the underlying
3	**Articulation of the client value proposition**	• The benefits of risk control funds are not well understood – including stable investment risk profile and the stronger guarantees • Extends to regulators and clients
4	**Pro-cyclicality of trading**	• Selling pressure in down markets may arouse concern of regulators

QUALIFICATIONS, ASSUMPTIONS AND LIMITING CONDITIONS