



LIVING VERSUS GUARANTEED ANNUITIES: IN SEARCH OF A SUSTAINABLE RETIREMENT INCOME

Taking Charge of Uncertainty: Insight, Innovation and Integration

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Momentum Employee Benefits

Introduction

- Currently 85% of assets at retirement flow into living annuities
 - Bequest motive
 - Investment choice
 - Flexible draw down
 - Perceived poor value for money of traditional products
 - Current low interest rate environment
 - Skewed incentive structures
- We are concerned about the ability of living annuities to provide a sustainable **income for life**

Product structure

	Annuity	
	Guaranteed	Living
Longevity Risk	Insured	Not insured
Value at Death (life insurance)	No	Yes
Investment Risk	No	Yes
Interest rate risk	at retirement	within investments
Investments	Matched	Choice
Drawdown	$1/a_x$	2.5% - 17.5%

Framework & assumptions

- Inflation linked income for life
- Assumptions:
 - Single male aged 65
 - GA: No guarantee period or joint life option
 - R1m in retirement savings
 - PA(90) -3 mortality with no improvements
 - Real return of 2.5% p.a.
 - Inflation of 5.5% p.a.
 - Nominal return of 8% p.a.
 - Ignored costs

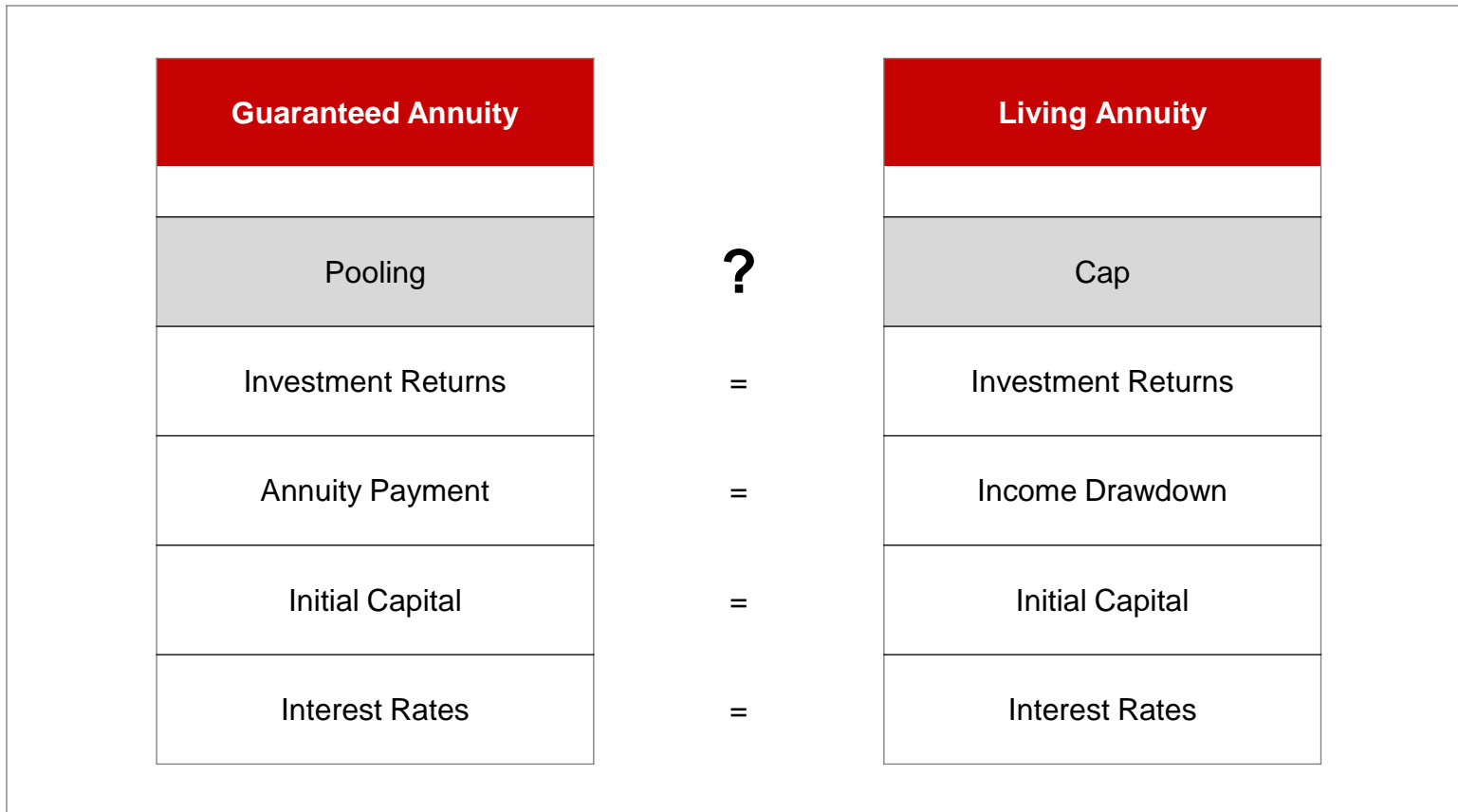


BREAKEVEN ANALYSIS

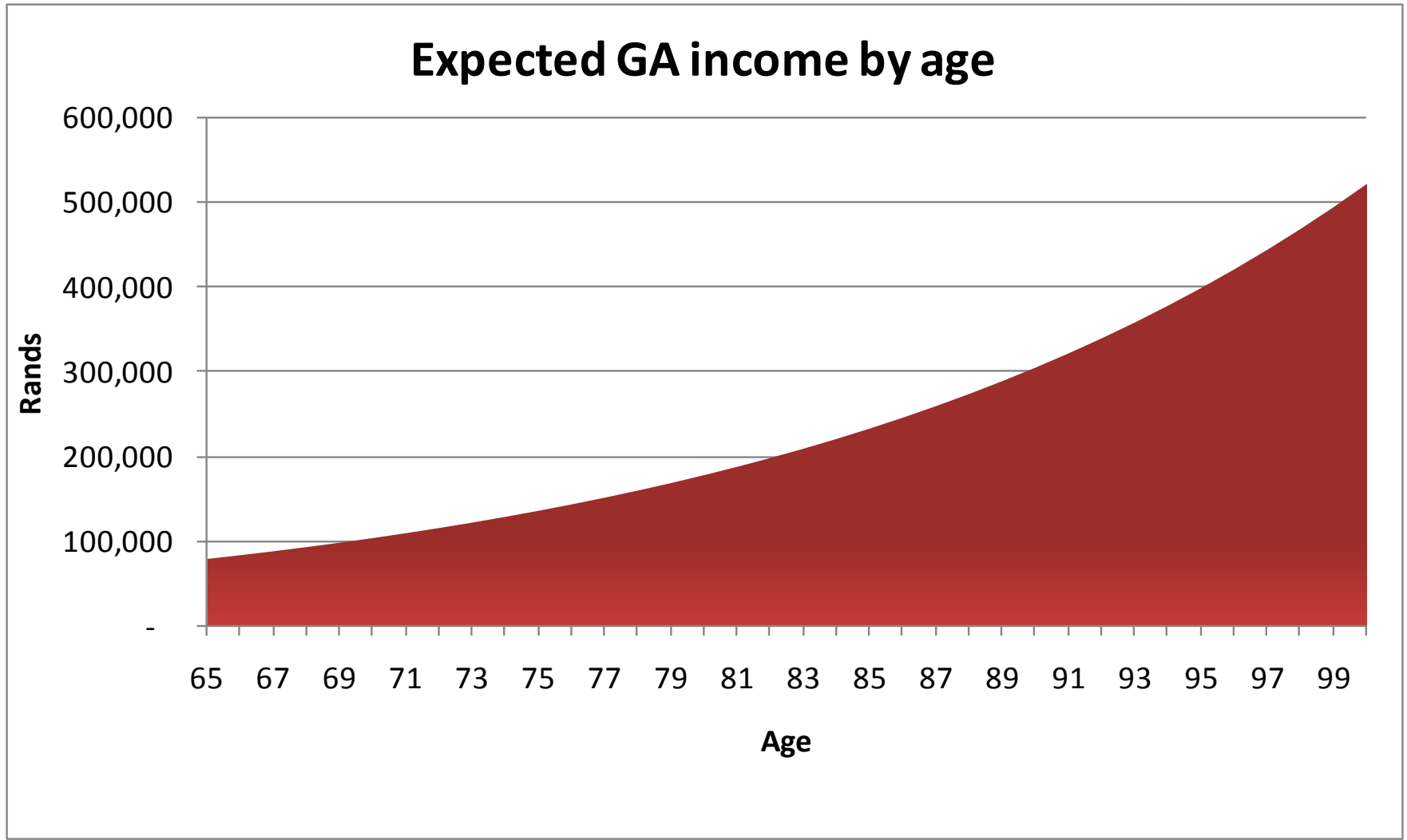
Breakeven framework

Guaranteed Annuity		Living Annuity
Pooling	?	Cap
Investment Returns	=	Investment Returns
Annuity Payment	=	Income Drawdown
Initial Capital	=	Initial Capital
Interest Rates	=	Interest Rates

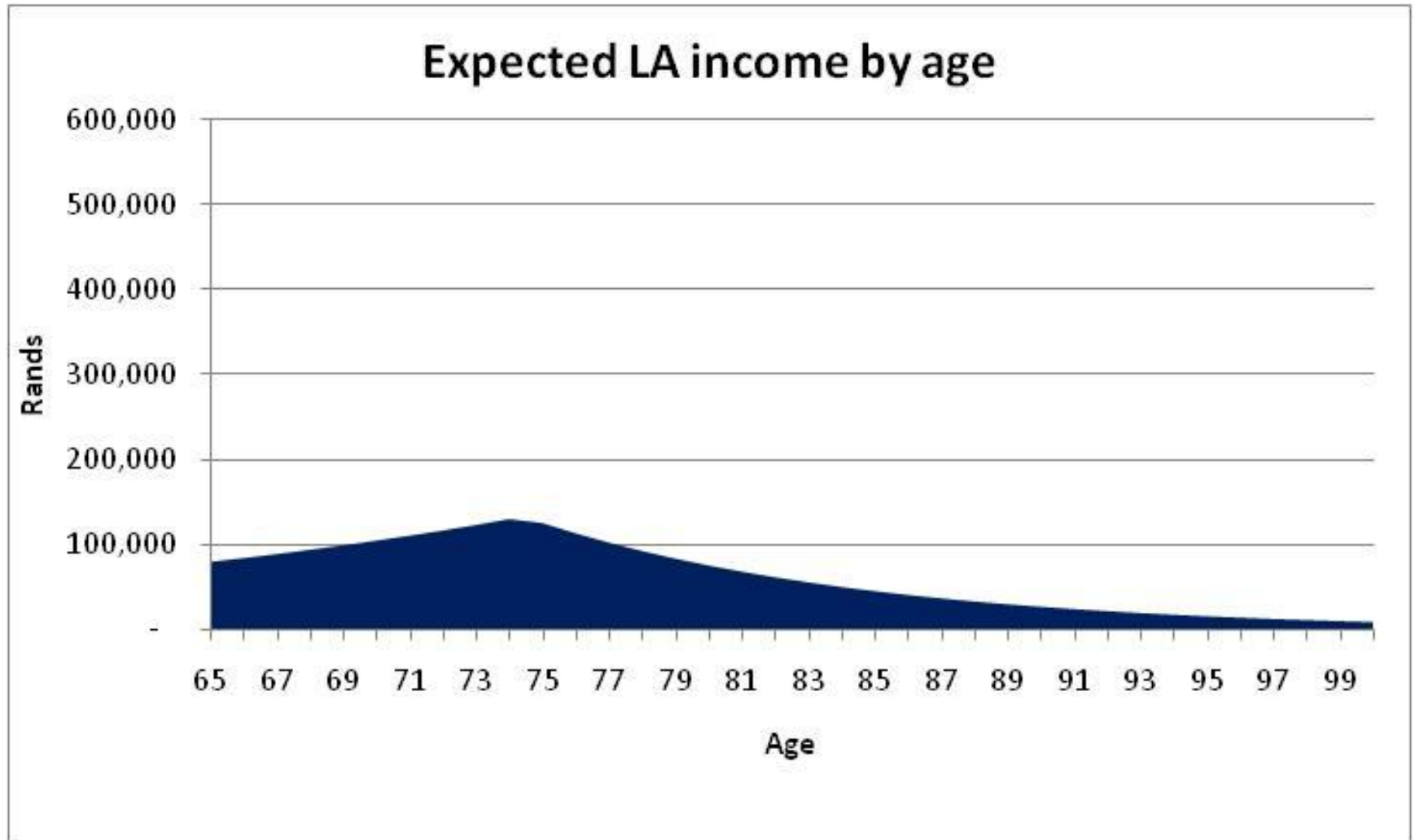
Impact of cap vs pooling



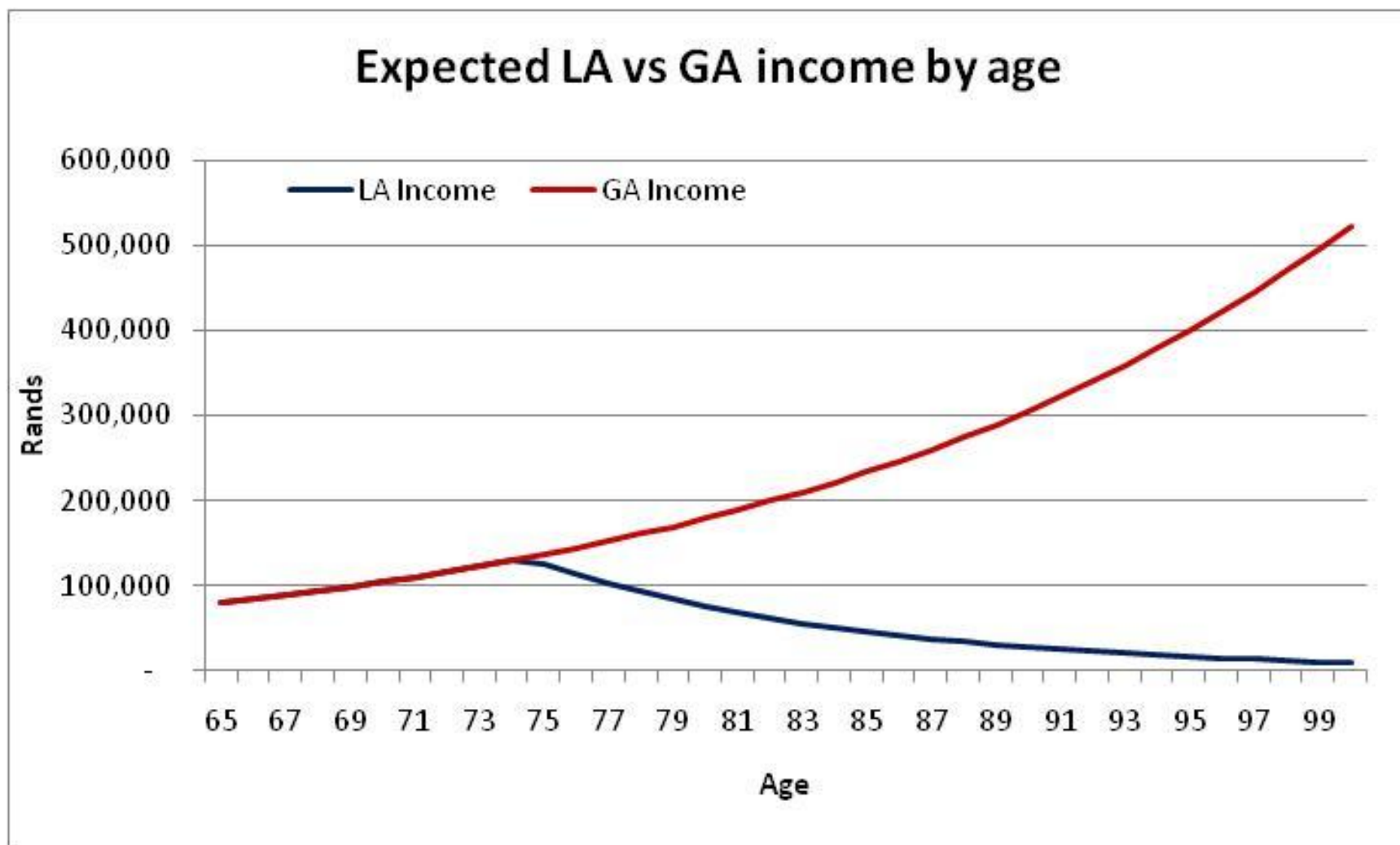
Benefit of pooling



Impact of the cap



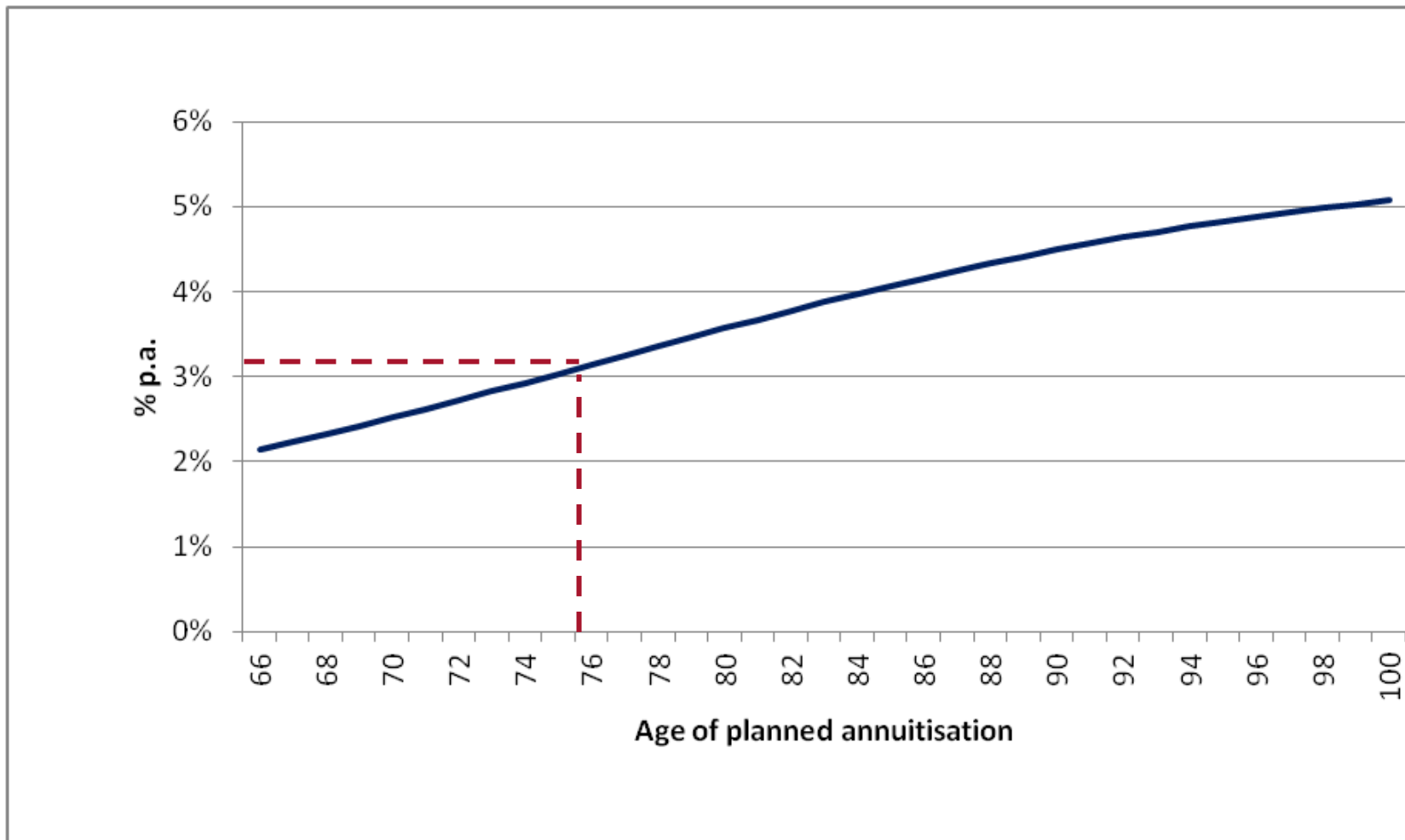
Impact of the cap vs pooling



Breakeven framework: investment returns

Guaranteed Annuity		Living Annuity
Pooling	?	Cap
Investment Returns	≠	Investment Returns
Annuity Payment	=	Income Drawdown
Initial Capital	=	Initial Capital
Interest Rates	=	Interest Rates

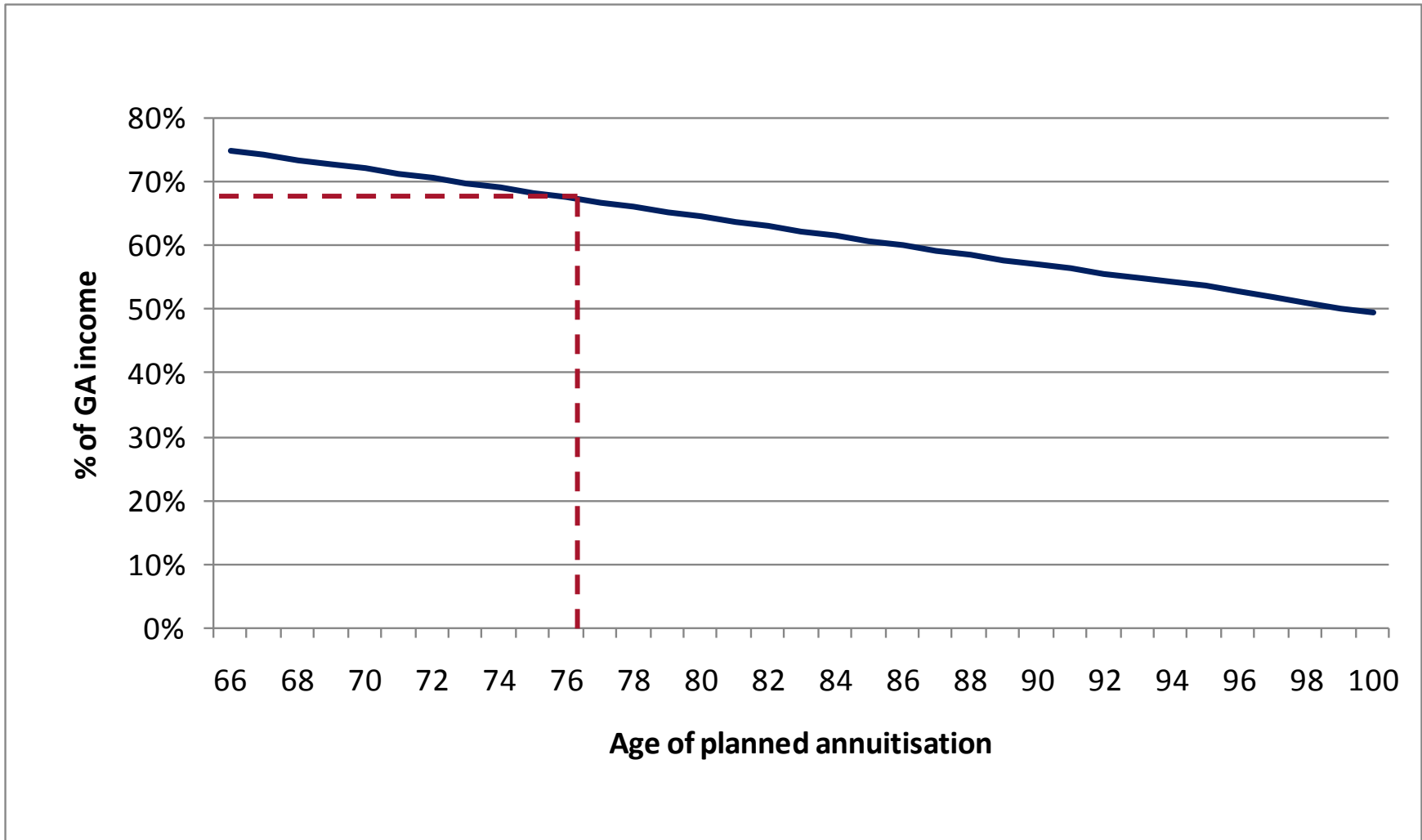
LA outperformance required



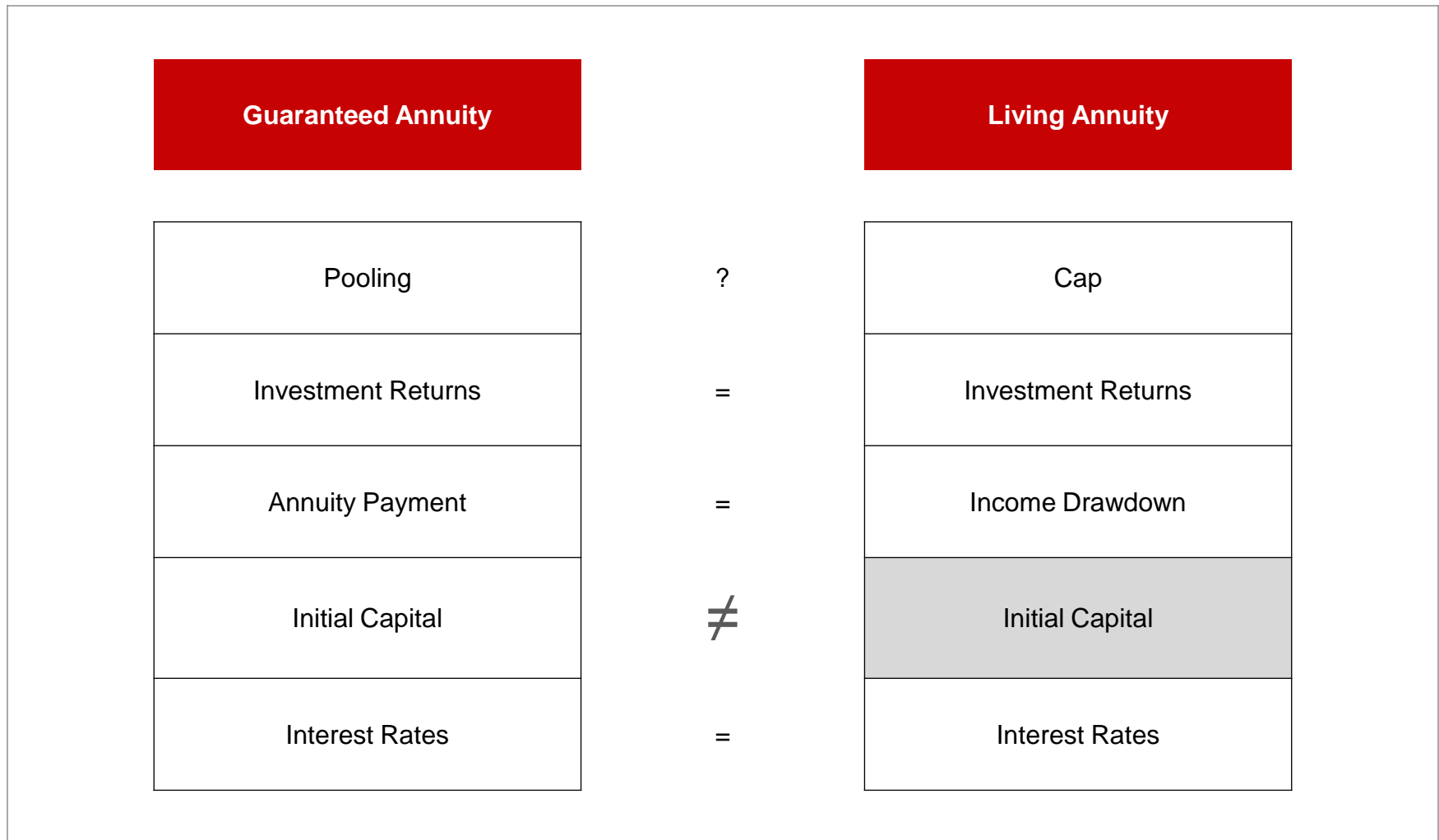
Breakeven framework: reduce drawdown

Guaranteed Annuity		Living Annuity
Pooling	?	Cap
Investment Returns	=	Investment Returns
Annuity Payment	≠	Income Drawdown
Initial Capital	=	Initial Capital
Interest Rates	=	Interest Rates

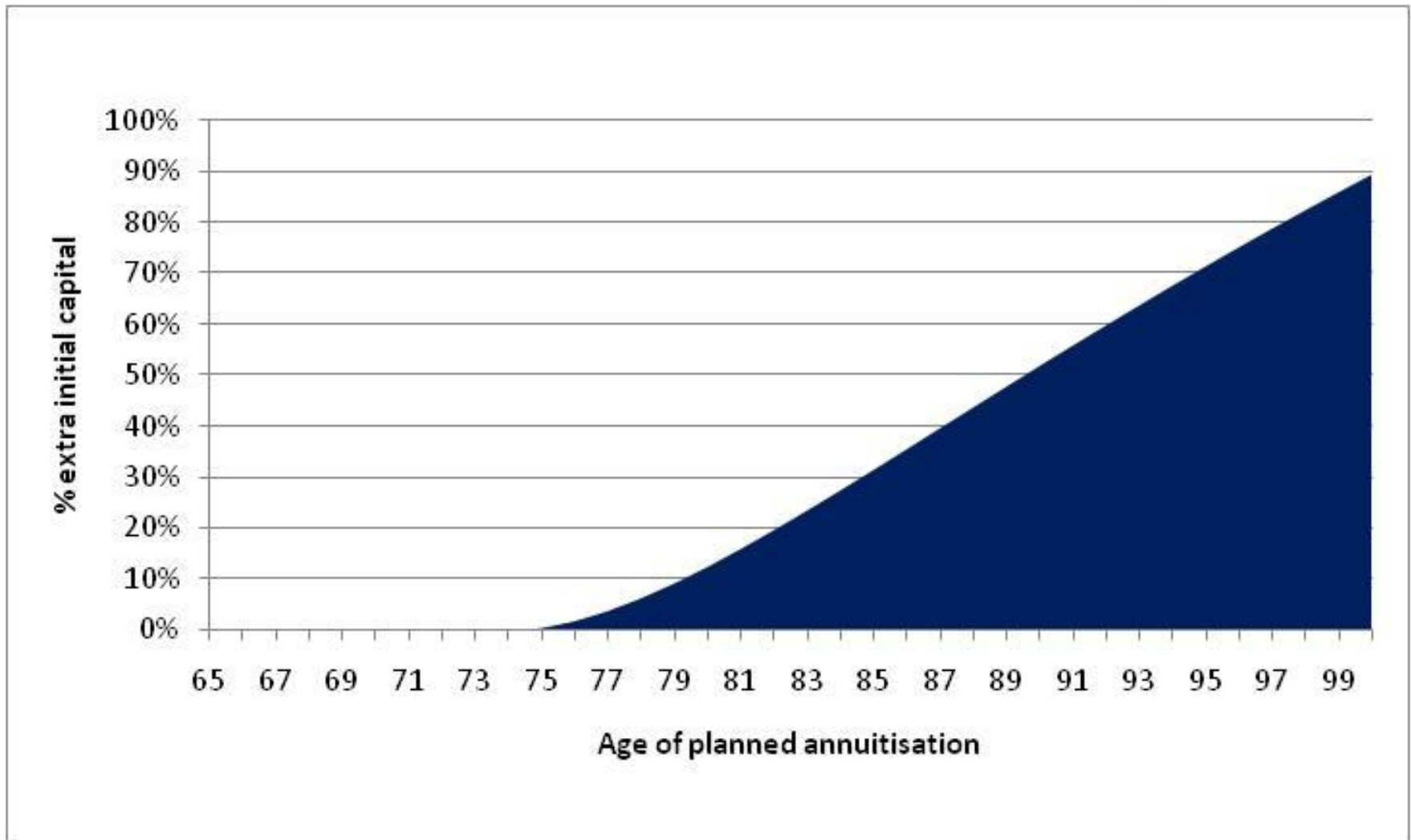
LA Reduced drawdown required



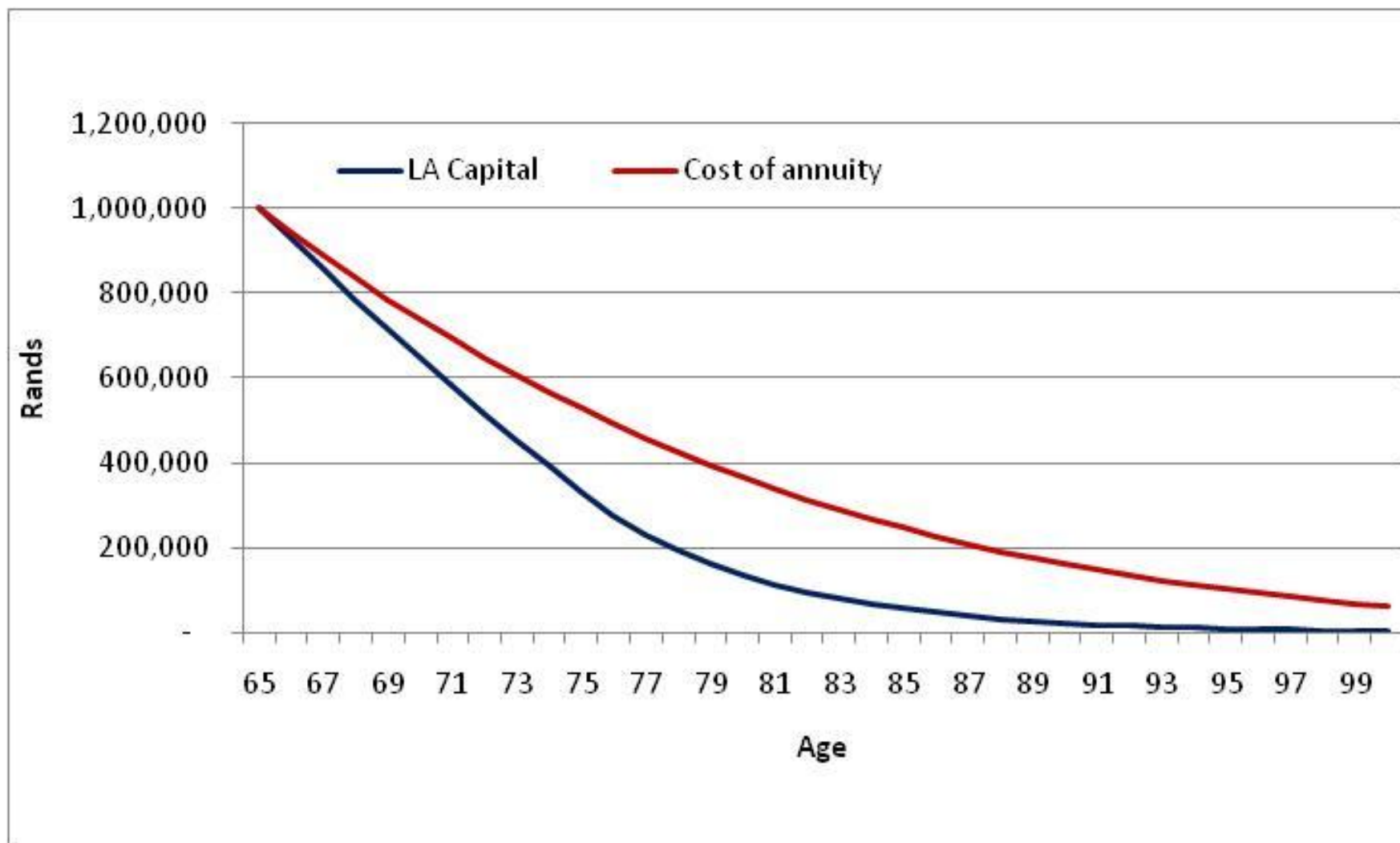
Breakeven framework: extra capital required



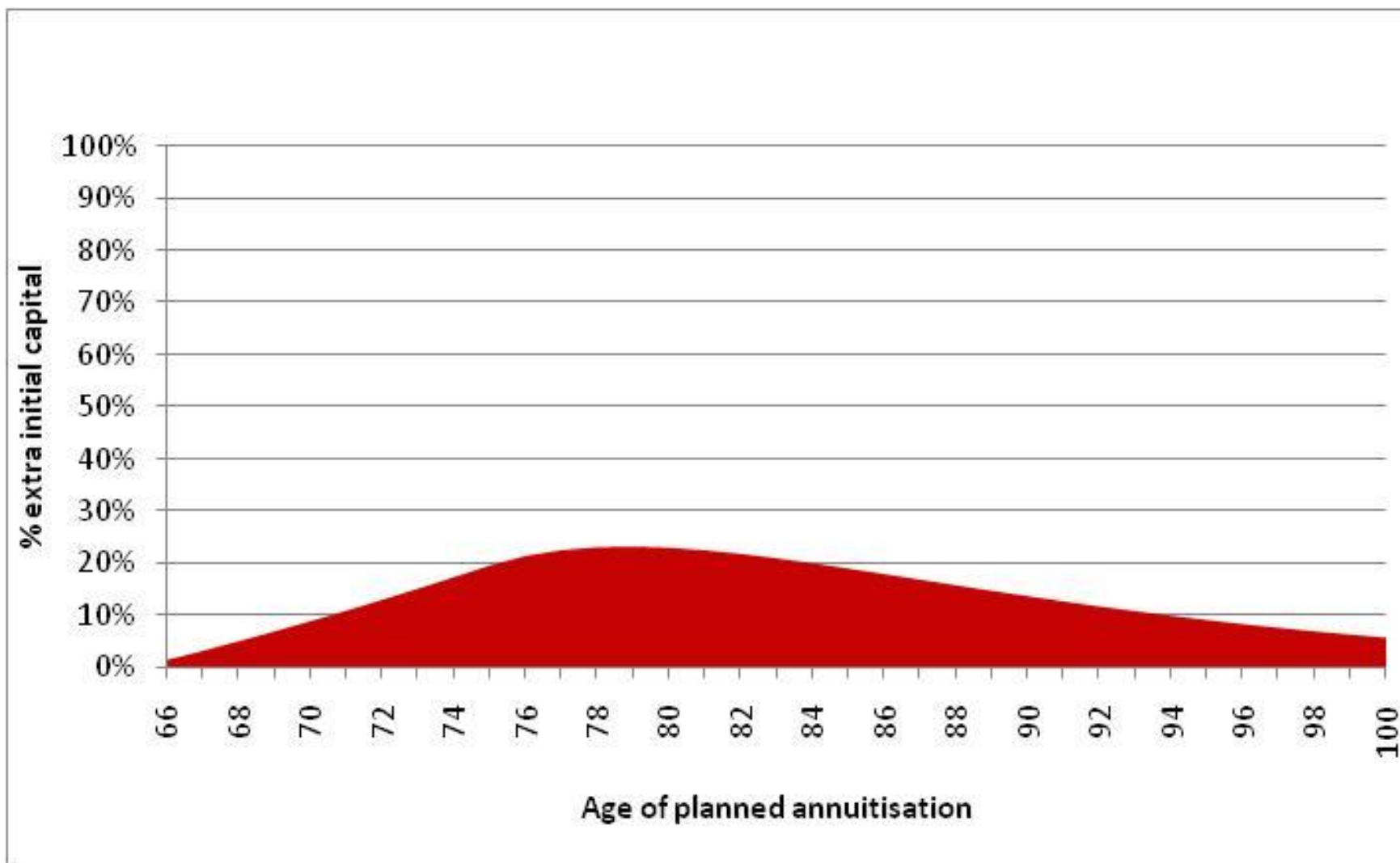
Cap insurance



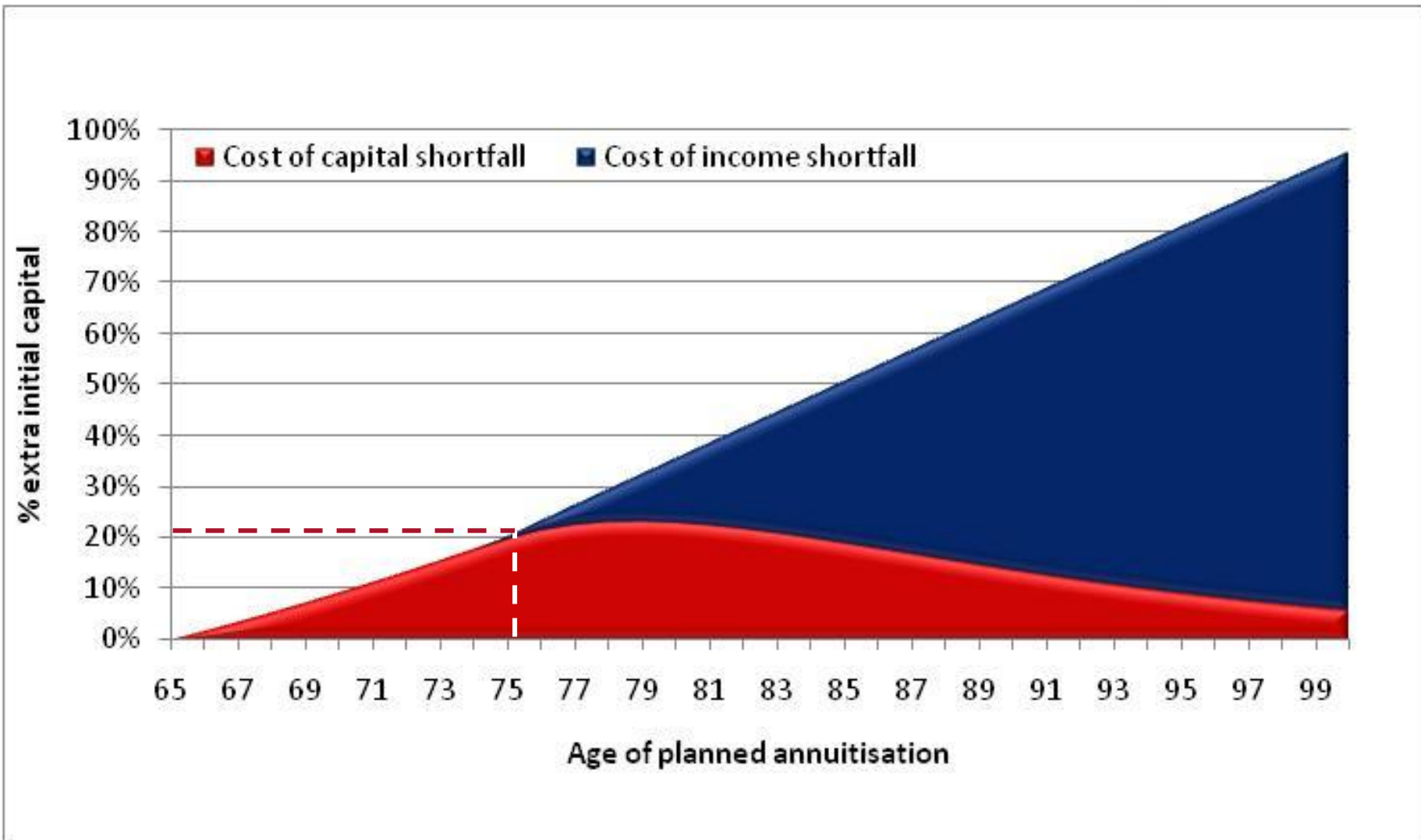
LA capital vs cost of annuity



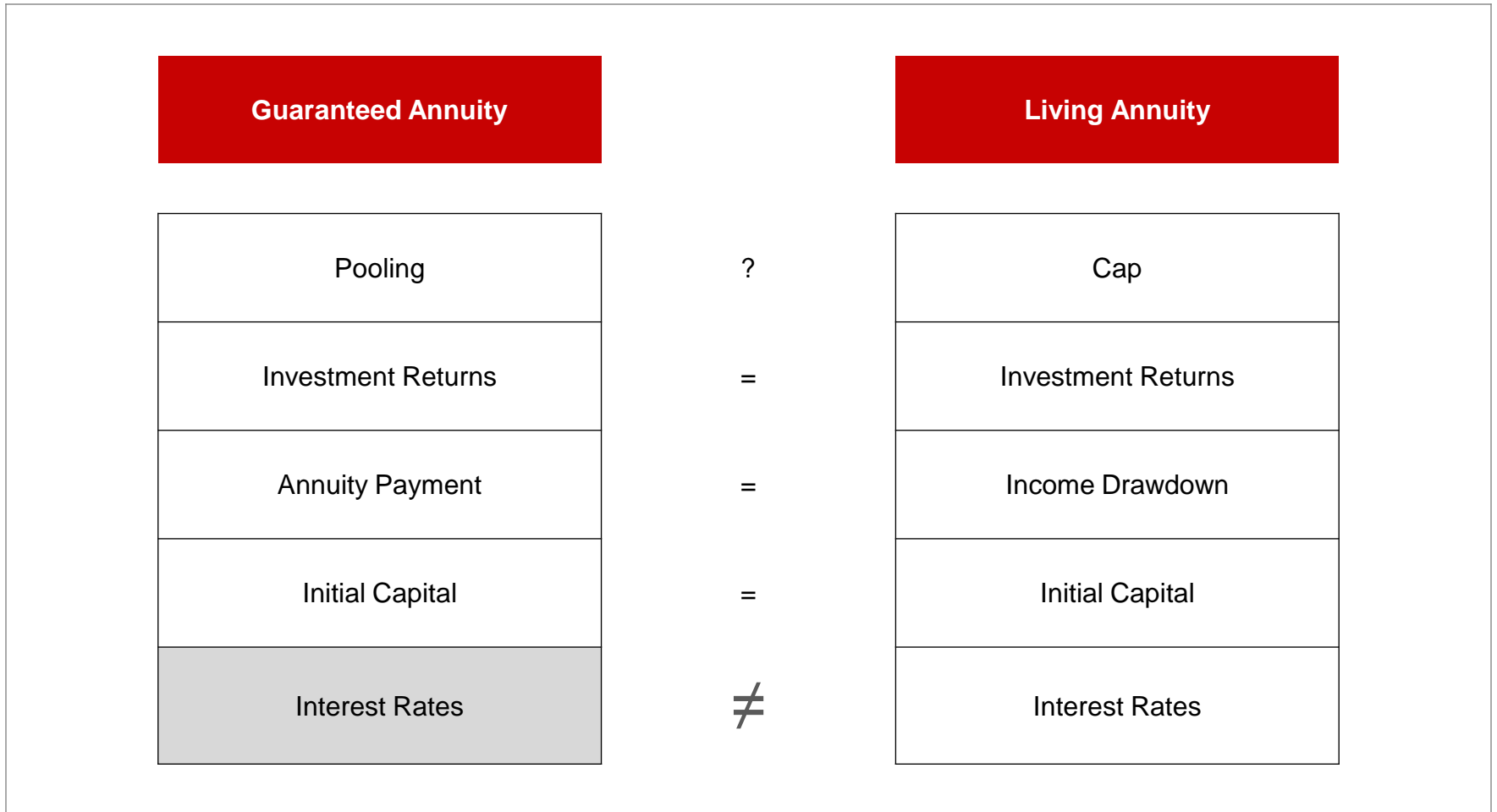
Shortfall insurance



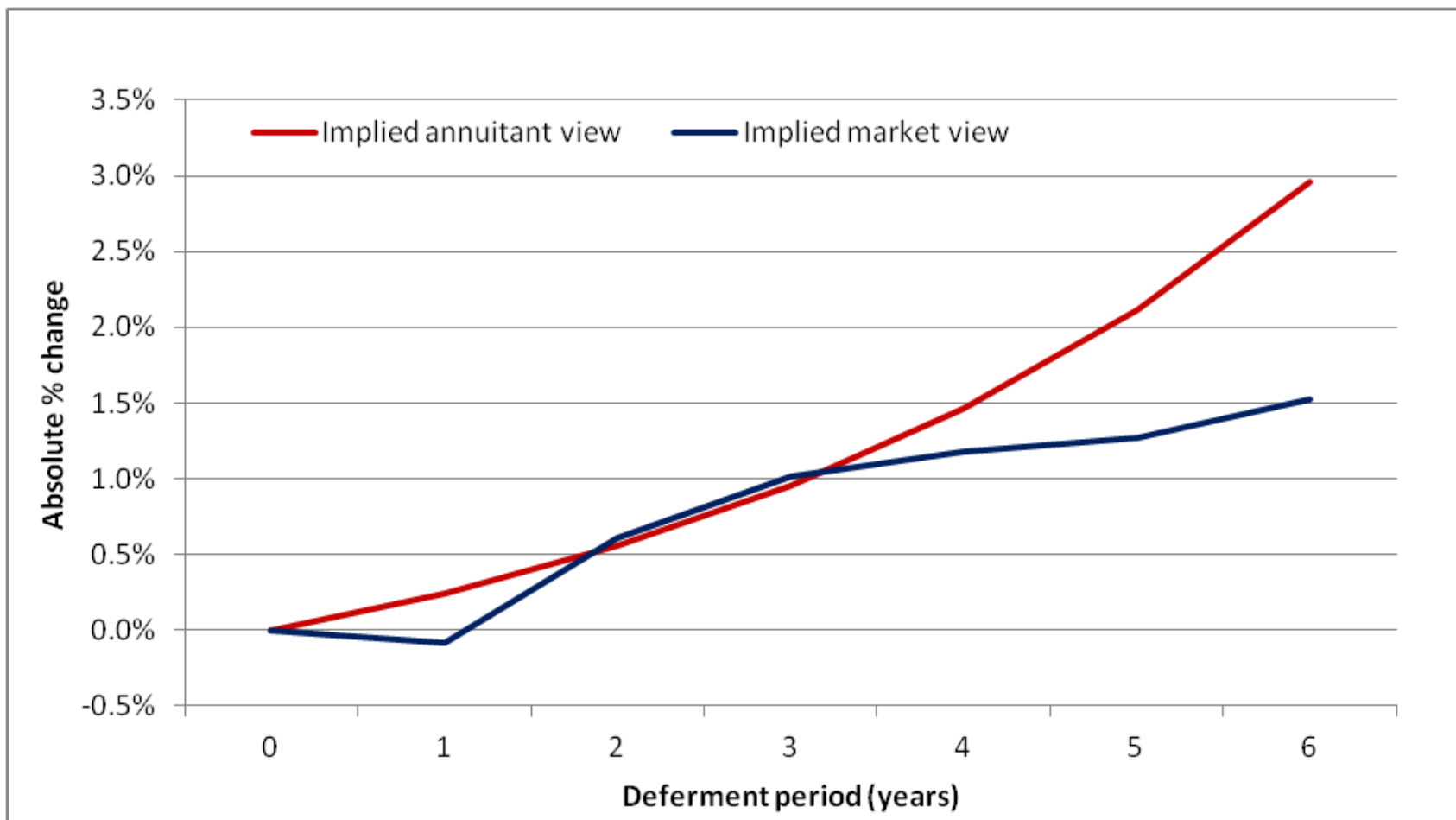
Total capital required



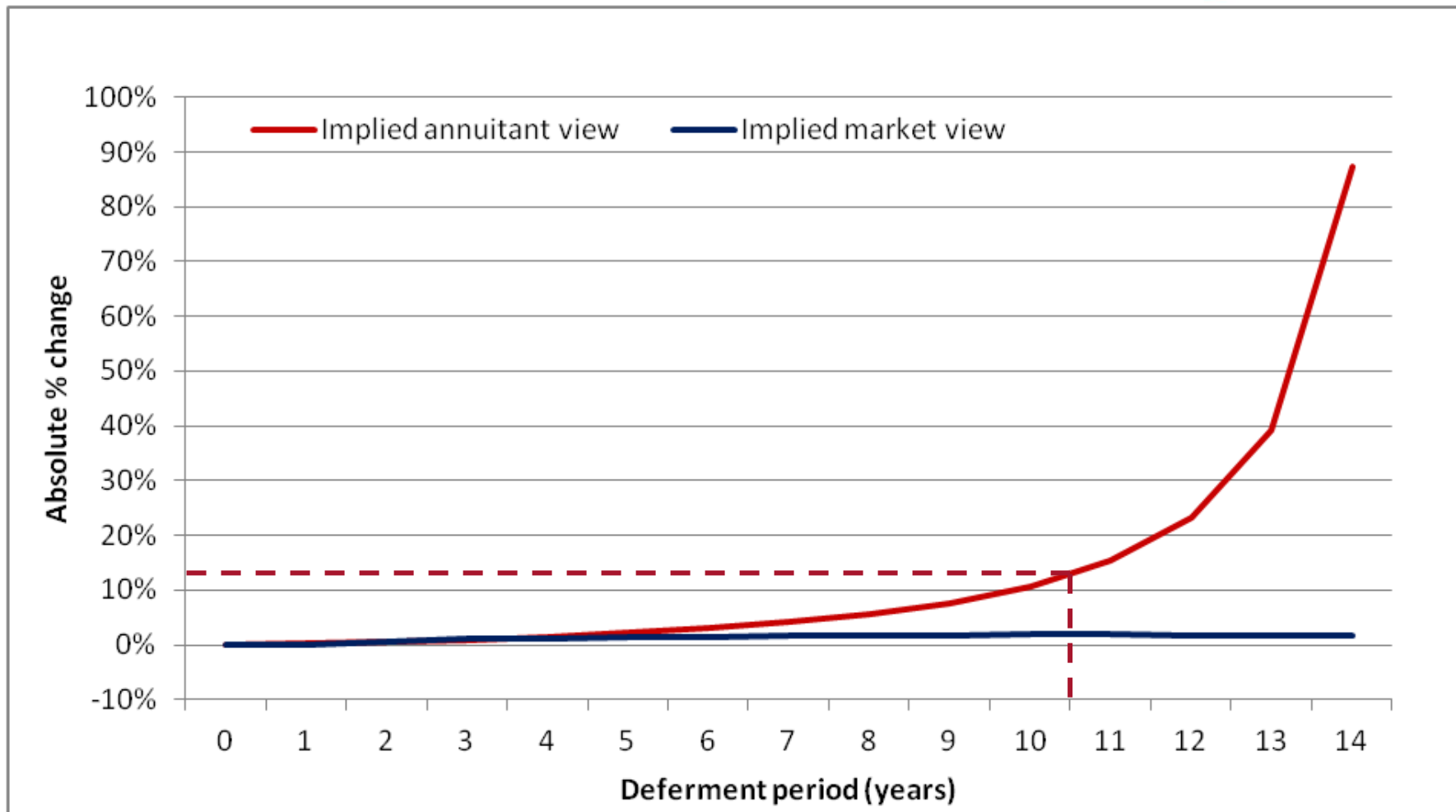
Breakeven framework: interest rates



Implied short term interest rate view



Implied long term interest rate view



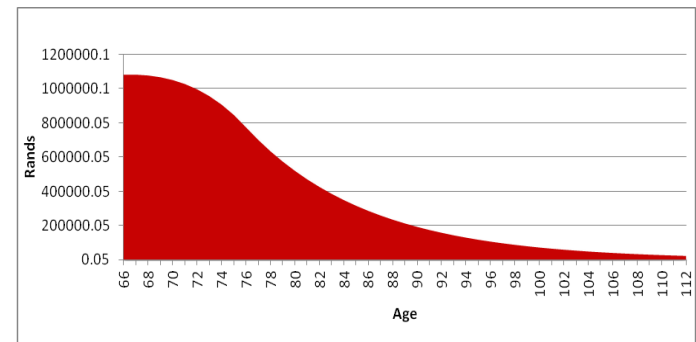
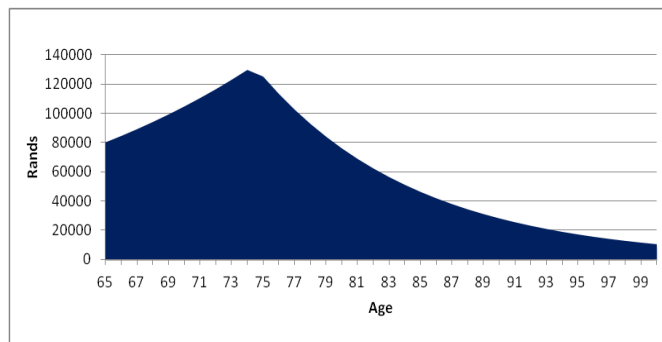
Summary of breakeven analysis

- Someone deferring annuitisation by 10 years would need one of the following in order to compensate for the loss of mortality credits over that time:
 - Investment performance of CPI+5.5% p.a. in each of those years, on a risk free basis; or
 - A 32% reduction in income for 10 years; or
 - 20% additional retirement savings; or
 - An increase in real interest rates from 2.5% to 13%
- Alternatively, a combination of the above can lead to breakeven, e.g.:
 - Reduce income by 10% for 10 years, and
 - Real rates go up by 1.88% in line with implied market view, and
 - Achieve performance of CPI + 3.14% p.a. during each of the 10 years

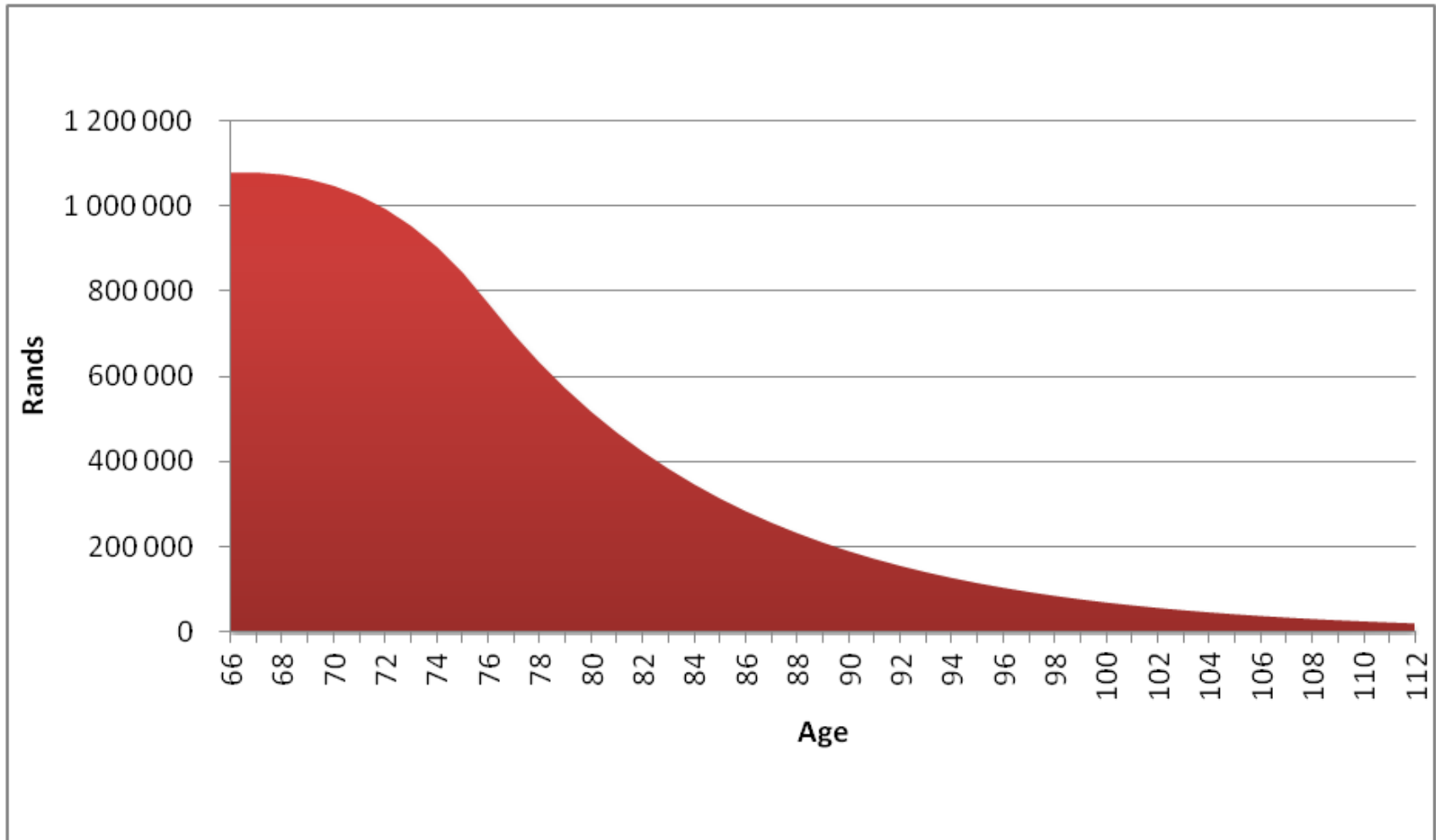


IMPACT OF LA DEATH BENEFIT

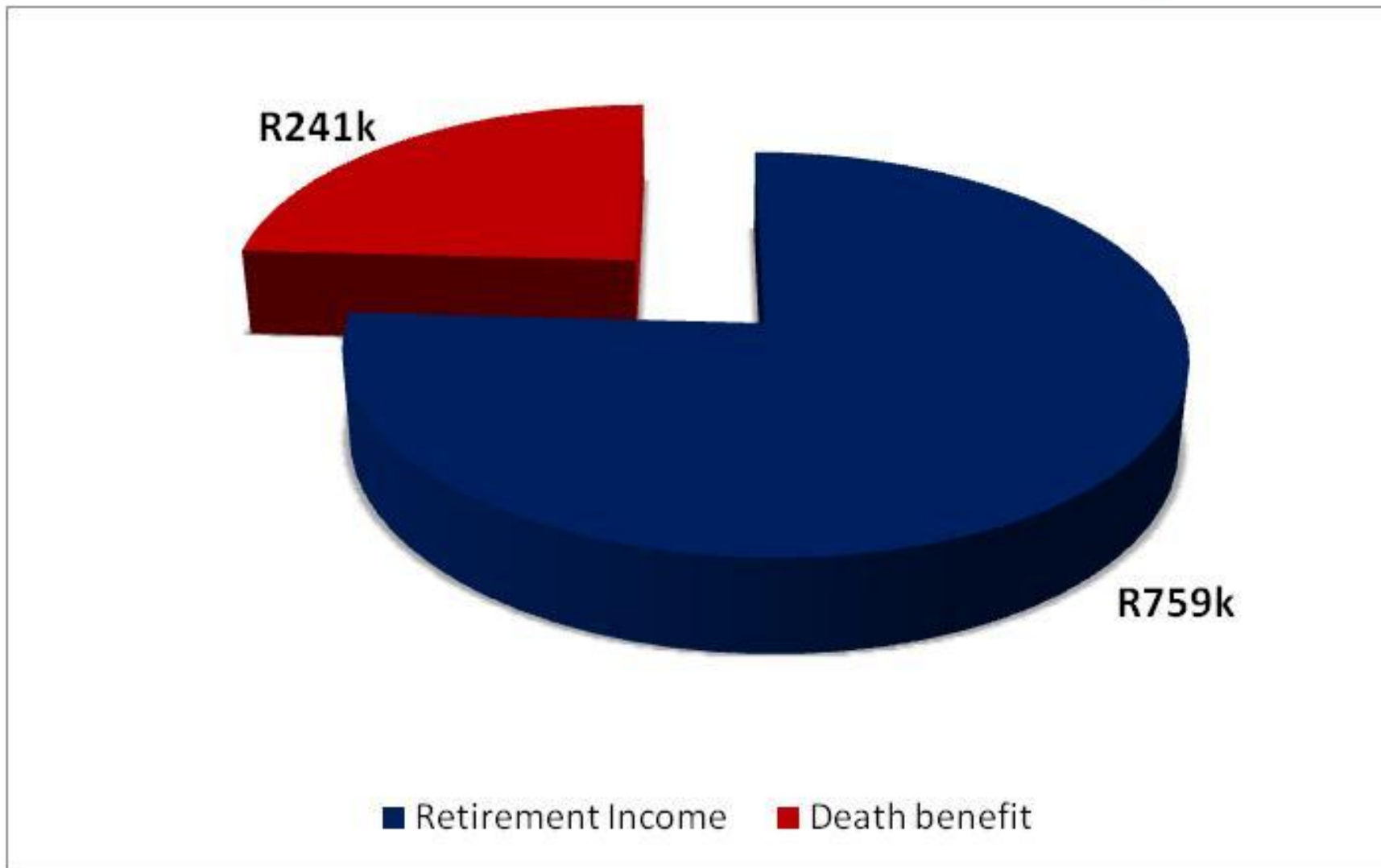
LA = Retirement Income + Death Benefit



LA death benefit



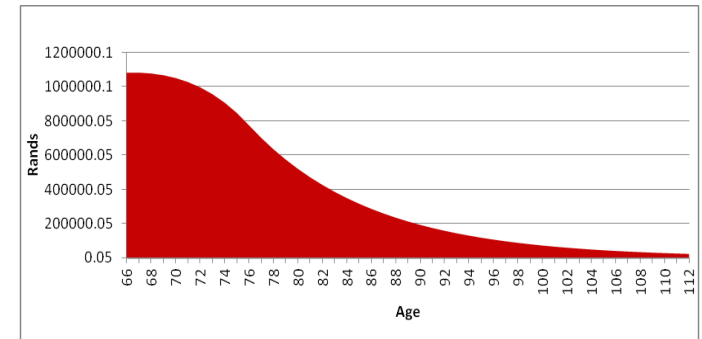
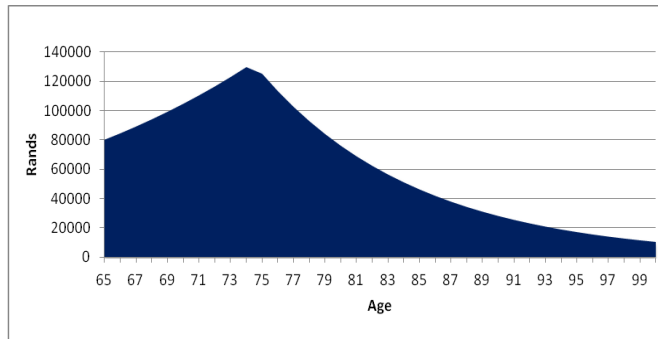
Cost of LA death benefit



Breakdown of LA cost

$$\mathbf{R1m} = \mathbf{R\ 759k} + \mathbf{R241k}$$

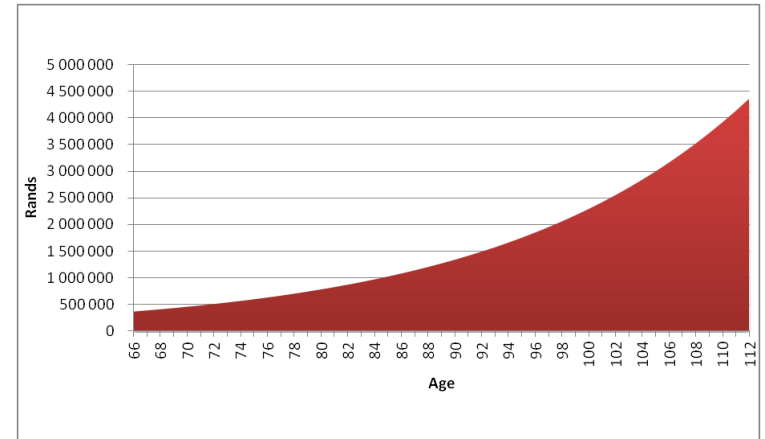
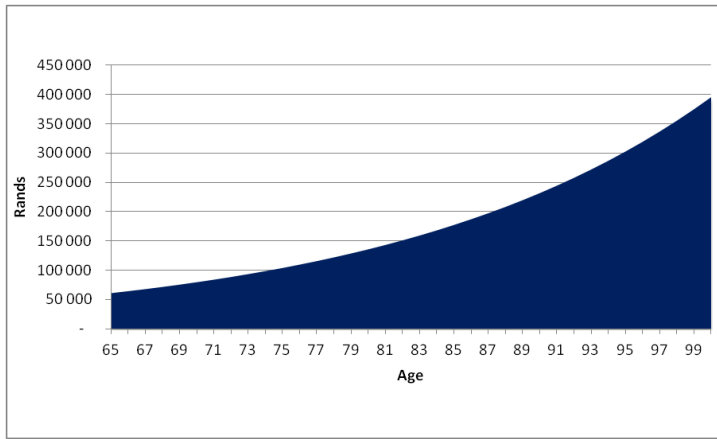
Retirement income Death benefit



Equivalent LA spending

$$\mathbf{R1m} = \mathbf{R759k} + \mathbf{R241k}$$

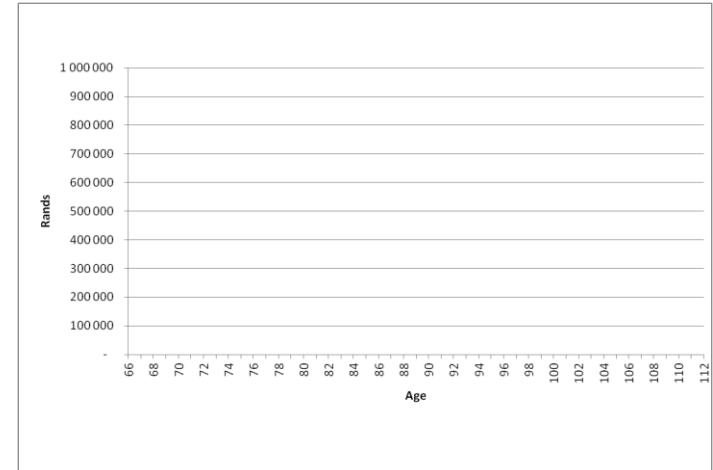
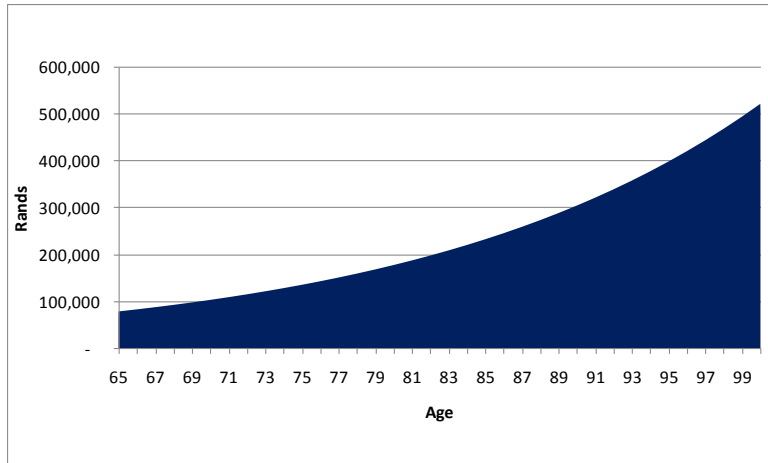
Retirement income Life insurance



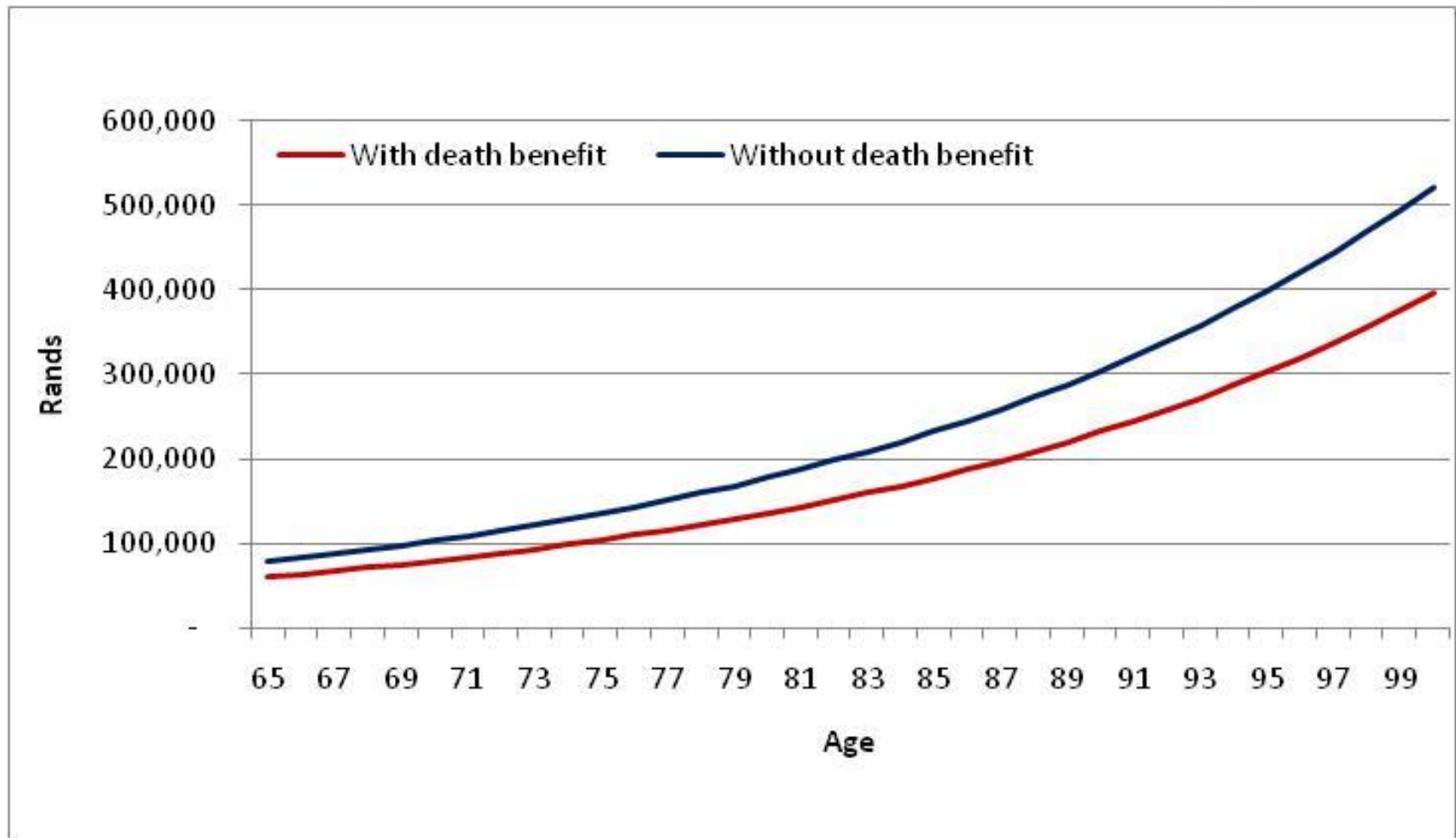
Equivalent LA spending

$$\mathbf{R1m} = \mathbf{R1m} + \mathbf{R0}$$

Retirement income Life insurance



Impact of LA death benefit on income

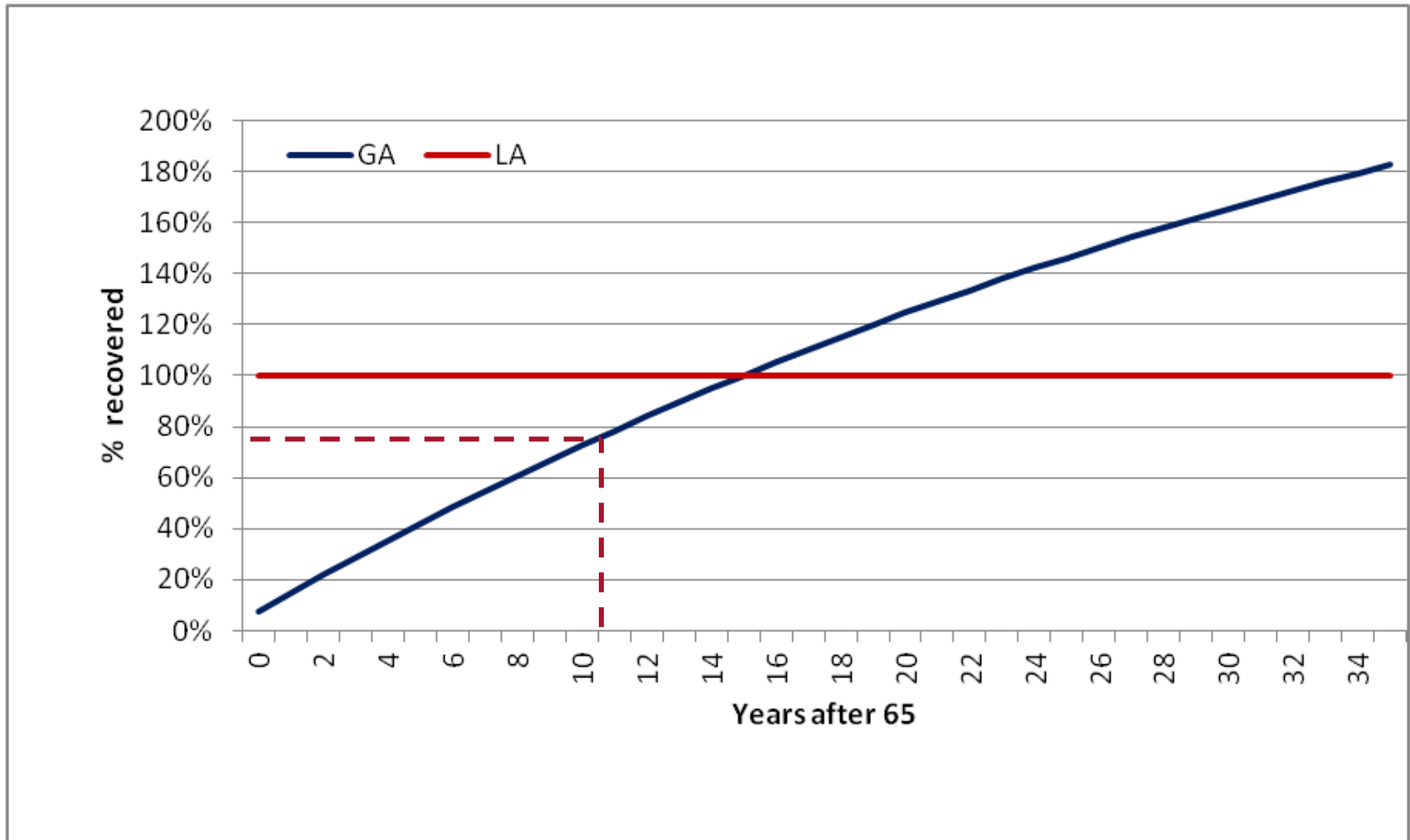


Cost of death benefit is a 24% reduction in expected retirement income



TIME TO RECOVER INVESTMENT

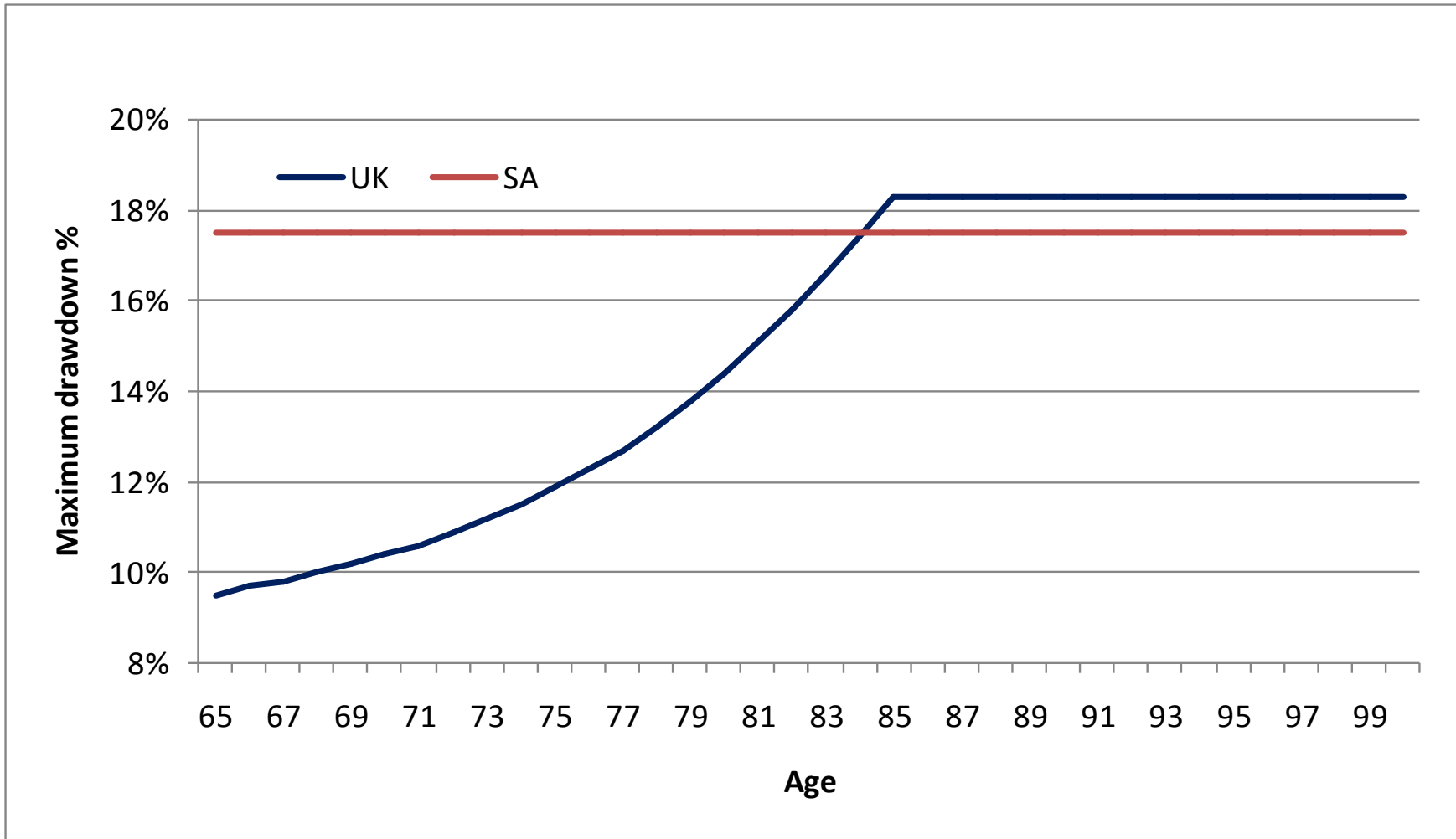
Time to recover investment





REGULATIONS

Regulation: UK vs SA





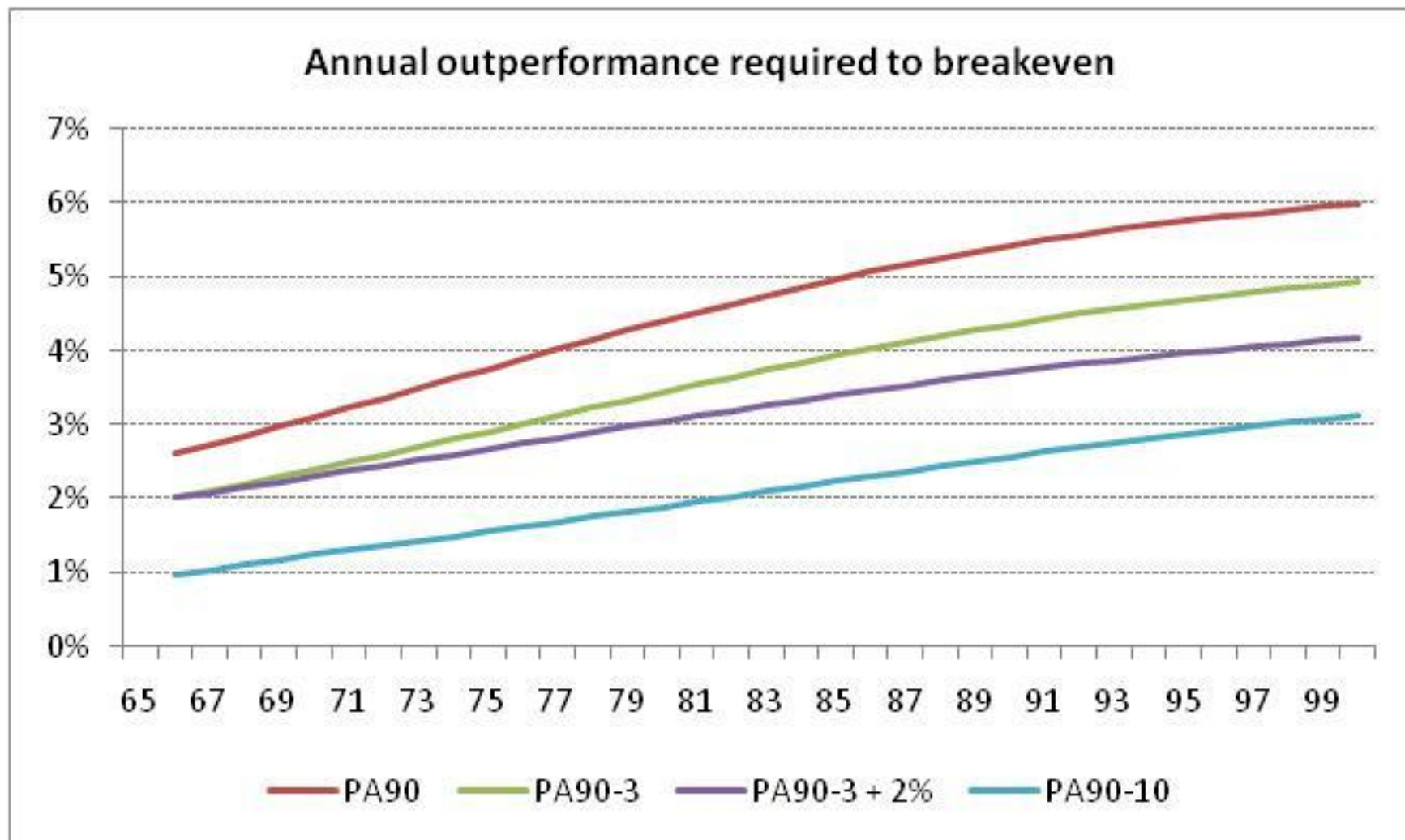
CONCLUSION

Conclusion

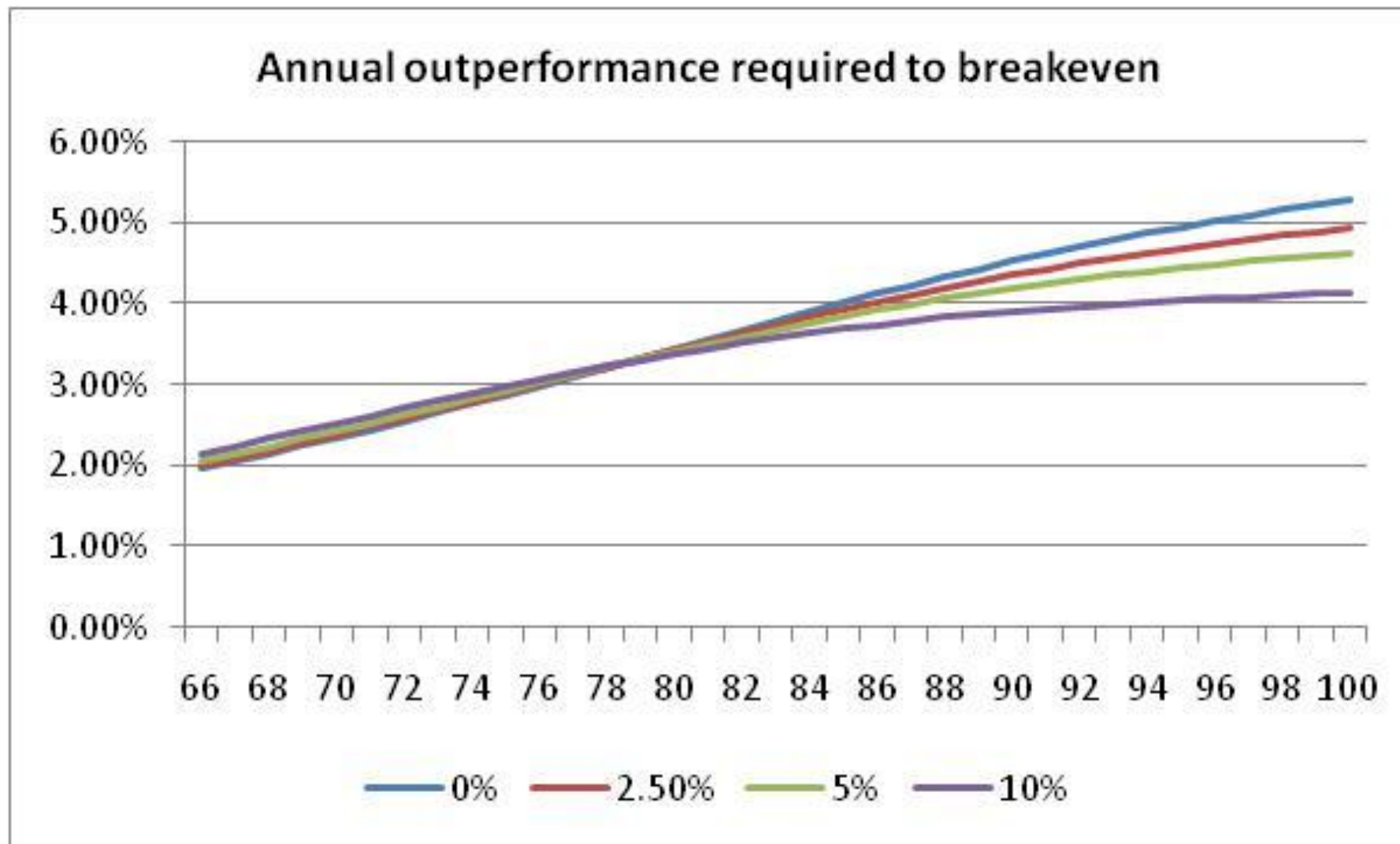
- Living annuities expose the industry to risk
- Living annuities are appropriate for impaired lives at retirement, and the wealthy
- Benefit of guaranteed annuities underestimated:
 - Effect of mortality pooling; cost of LA death benefit
- Hybrid annuities can be a good solution
- Potential solutions:
 - Appropriate regulation
 - Product innovation
 - Education

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Impact of mortality assumptions



Impact of real rate assumption





QUESTIONS?

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