

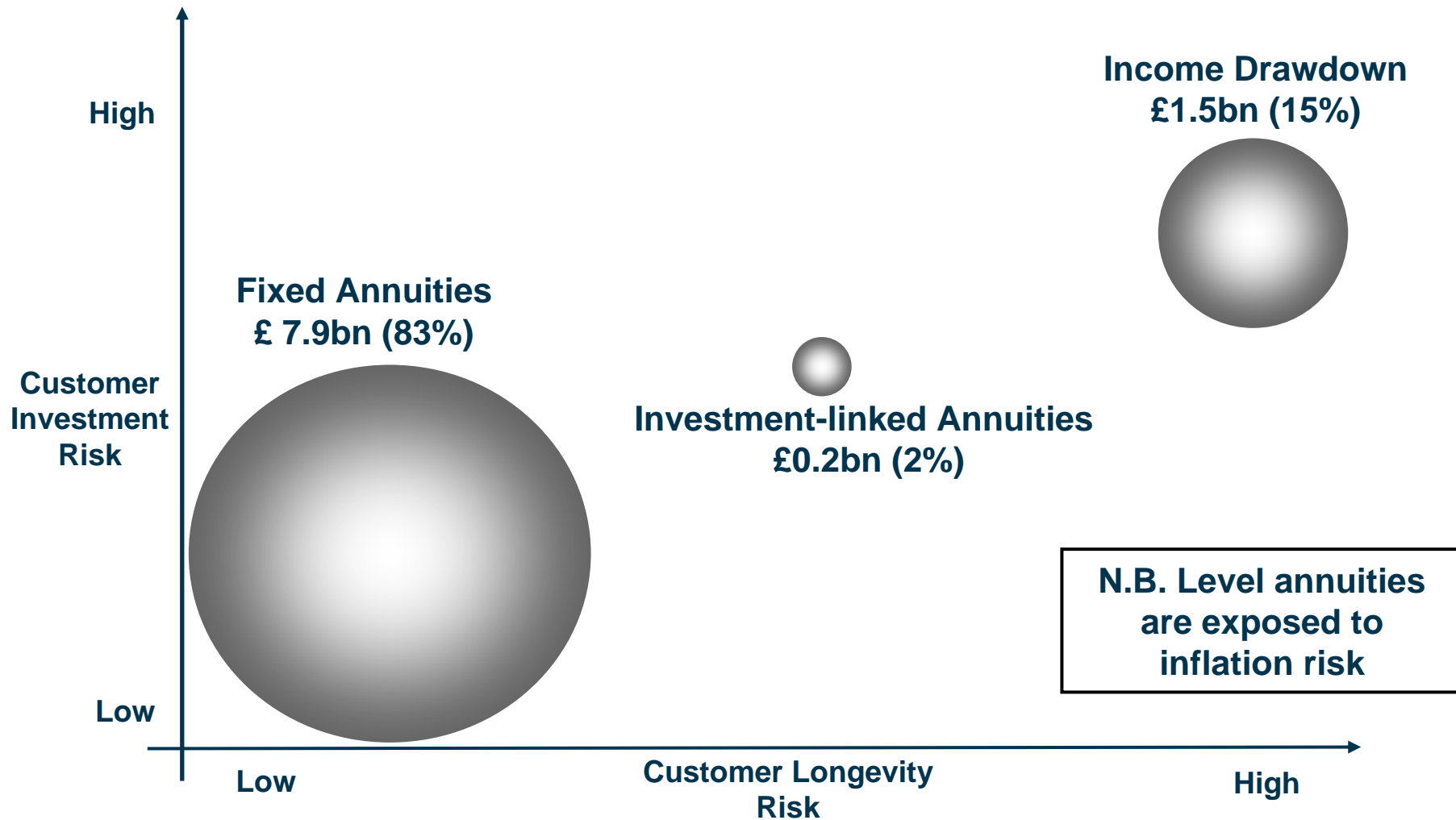
**8th Bowles Symposium**  
**and**  
**2nd International Longevity Risk and Capital Market**  
**Solutions Symposium**

**Annuitization lessons from the UK**  
**Money-Back annuities and other developments**

**Tom Boardman**  
**UK Policy Development Director**  
**Prudential Assurance UK**

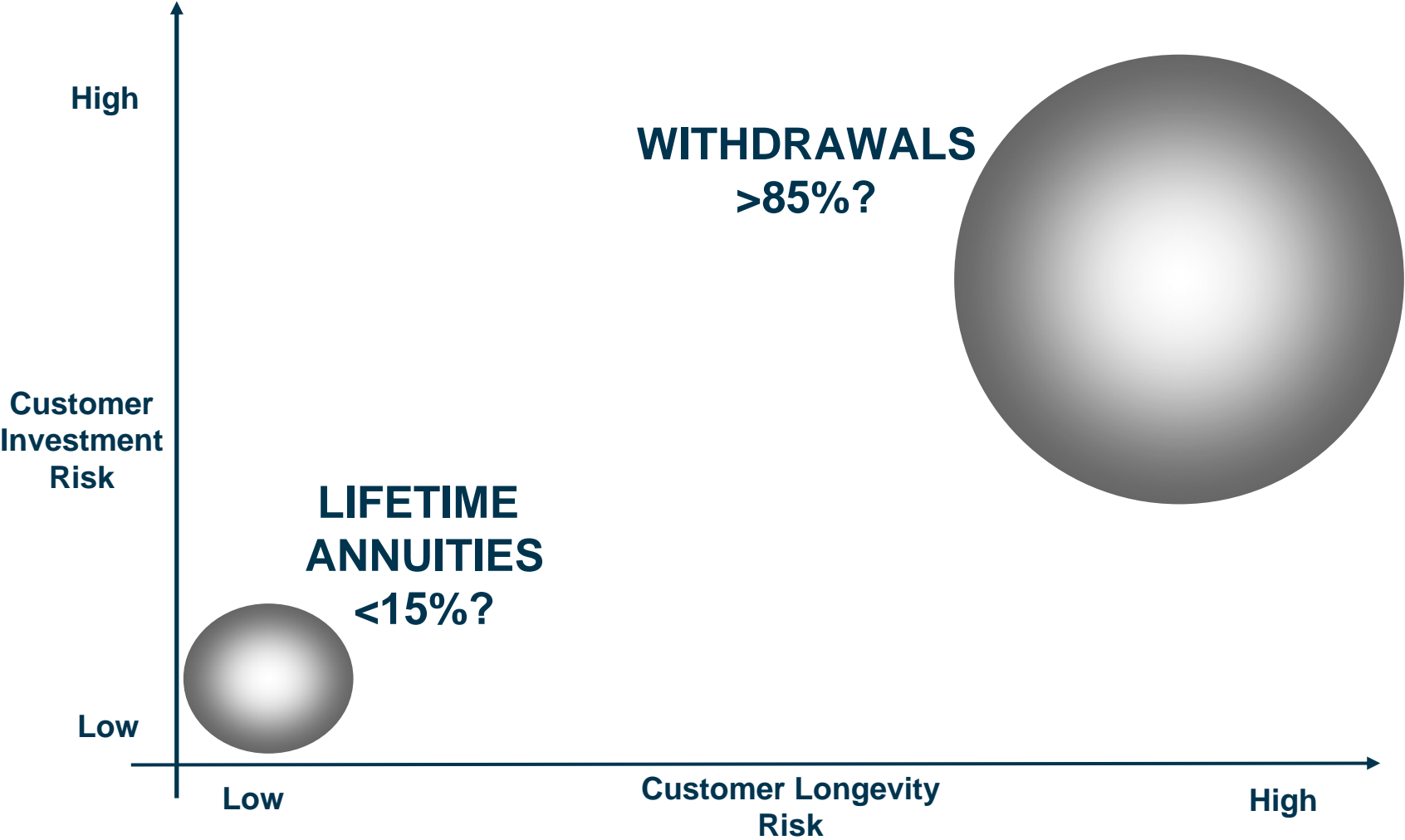
- UK retirement income market
  - How does it differ from the US?
- When should pensioners buy an annuity?
  - The value of annuitization
  - Investment considerations
- The UK journey to Money-Back pension annuities
- Observations on the possible US retirement income journey

# UK RETIREMENT INCOME MARKET 2005



Source - ABI Data 12 Months to December 2005

# US RETIREMENT INCOME MARKET



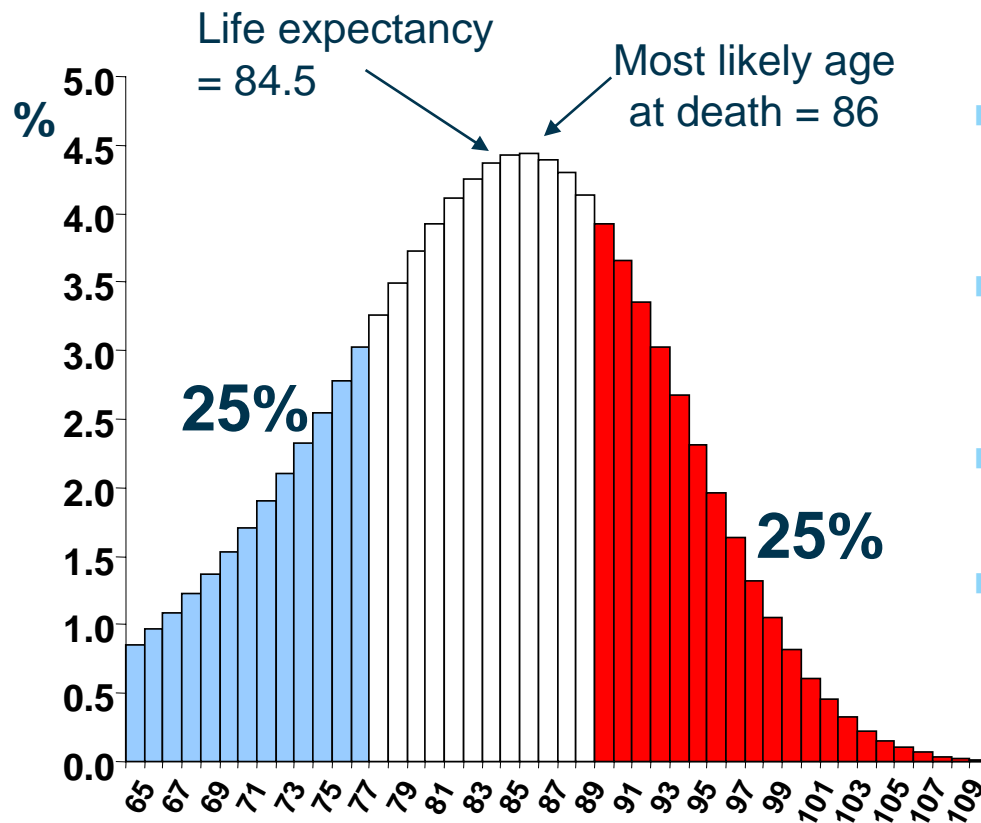
Source: 2001 Survey of Consumer Finance - IAB Research

# THE ROLE OF ANNUITIZATION



Consumers are aware of increased life expectancy but not so aware of variability in life expectancy

## Expected distribution of deaths: male 65



The importance of a guaranteed income for life:

- At 65, male life expectancy is 84.5 - but more than 1 in 4 will reach 90 and 10% will reach 95
- Planning retirement finances in the context of this level of uncertainty is difficult
- Deferral of income is impractical for the mass market
- The guarantee of an income for life provided by an annuity is still essential for the vast majority seeking security and to maximise income in retirement!

Source: 100% PMA92 (U2003)

# PROBABILITY OF OUTLIVING ASSETS – MALE AGE 65



**Deferral of income is impractical for the mass market**

<b>Reduce income by:</b>	<b>0%</b>	<b>5%</b>	<b>10%</b>	<b>20%</b>
<b>Fund size at life expectancy of 84 (% of initial amount)</b>	<b>0%</b>	<b>0%</b>	<b>12%</b>	<b>39%</b>
<b>Probability of outliving assets (%)</b>	<b>58%</b>	<b>54%</b>	<b>45%</b>	<b>20%</b>

Source: Own calculations 100% PMA92 (U2003)

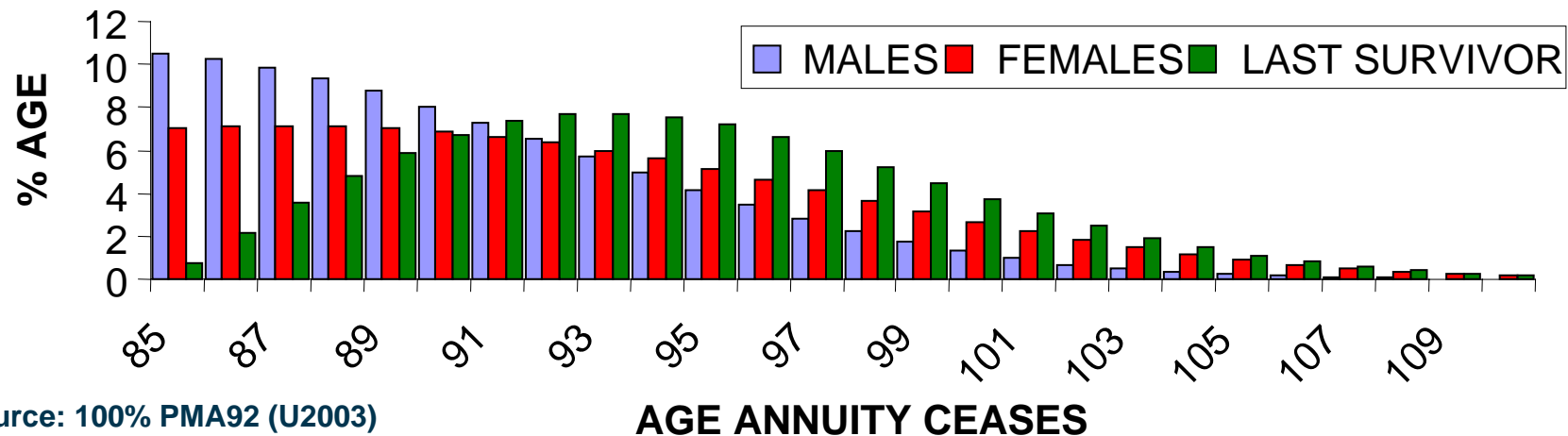
**With Income Drawdown there is a death benefit of the residual fund. This is clearly valuable if you die early but this is less than an evens chance.**

# DISTRIBUTION OF AGES AT WHICH ANNUITIES ARE EXPECTED TO CEASE - AGE 85 AT OUTSET



The shape of the distribution curves becomes more skewed as age increases but the variability remains

DISTRIBUTION CHART SHOWING AGES AT WHICH ANNUITIES CEASE



Source: 100% PMA92 (U2003)

The scale of the mortality cross subsidy at older ages makes annuitization essential for anyone without extensive alternative wealth. The probability of outliving assets taking an income of 80% of the annuity income increases from 20% at age 65 to 36% at age 85.

## AT YOUNGER AGES THE ANNUITY MORTALITY CROSS SUBSIDY GIVES POOR VALUE TO THOSE DYING EARLY



### Any pooling of mortality needs to be perceived to be fair by the public

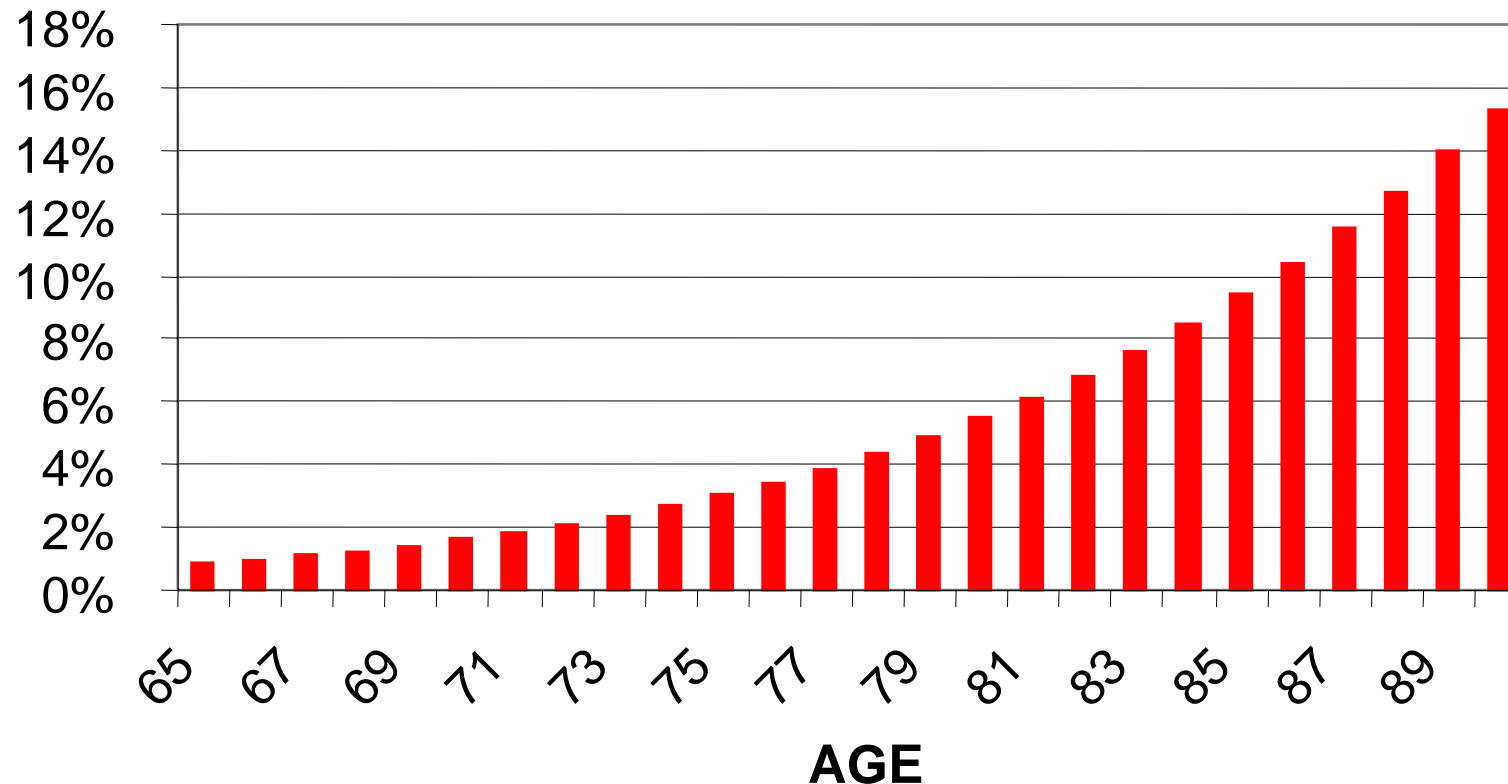
- At younger ages it has become less attractive to put capital at risk in exchange for guaranteed income for life
- If chance of dying at age 60 is approx. 0.5% then annuitant receives mortality cross subsidy of just £500 in exchange for putting £100,000 capital at risk
- £500 spread over remainder of life
- Life expectancy is almost 25 years
- Additional income just £20 per annum!
- At age 65 the additional income is around £40 per annum

**In these circumstances most people given the choice would forego the mortality cross subsidy and chose to have an option of the return of their fund on early death.**

# AS ANNUITANTS GET OLDER THE IMPACT OF MORTALITY CROSS SUBSIDY GROWS RAPIDLY



## MORTALITY CROSS SUBSIDY MALE LIFE AGE 65



Source: Own calculations 100% PMA92 (U2003)

## AS ANNUITANTS GET OLDER THE IMPACT OF MORTALITY CROSS SUBSIDY GROWS RAPIDLY



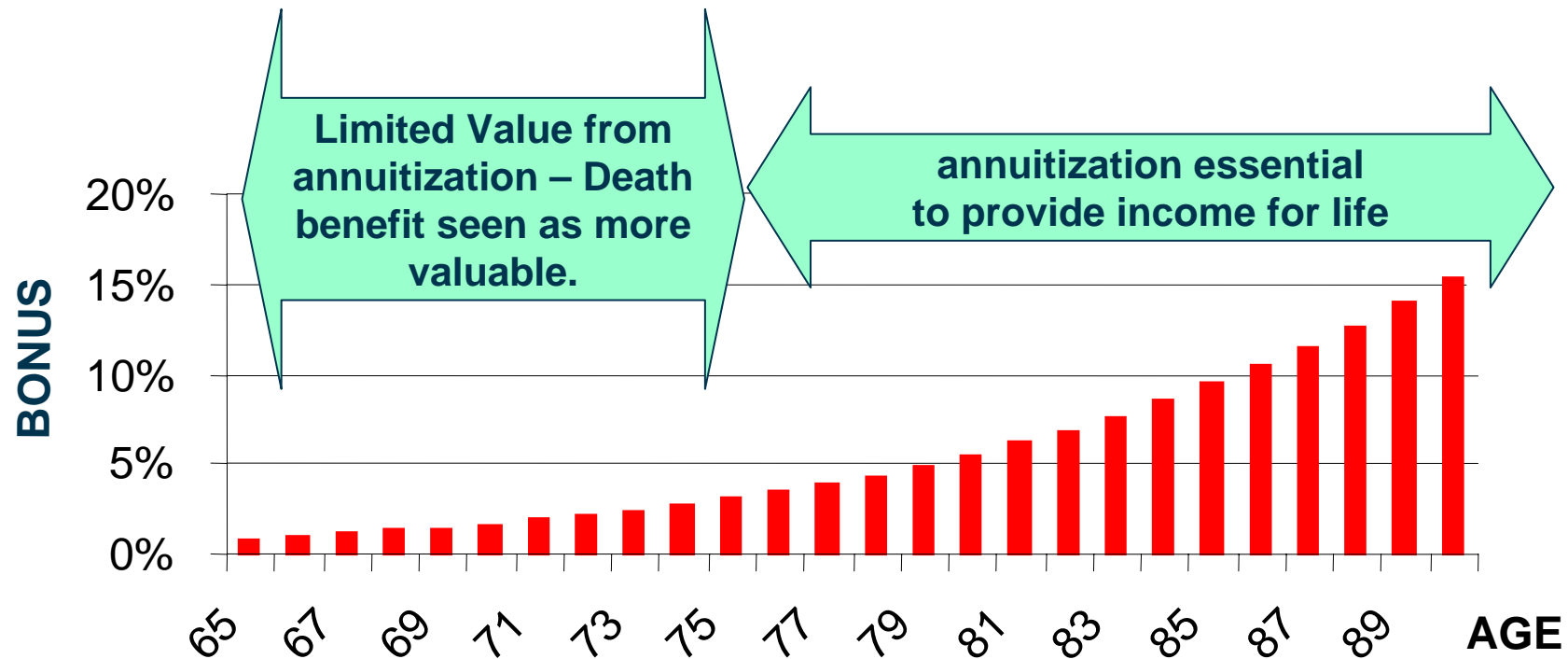
- Annuitants in their early 80s have around a 8% chance of dying and their life expectancy is around 8 years
- Enhancement for putting £100,000 at risk is now £8,000 and the extra income around £1,000 p.a.
- 50X benefit at age 60
- By age 90 the chance of dying is approaching 15% and life expectancy is less than 5 years
- Enhancement for putting £100,000 at risk is now £15,000 and the extra income around £3,000 p.a.
- 150X benefit at age 60

**The scale of the mortality cross subsidy at older ages makes annuitization essential for anyone without extensive alternative wealth**

# WHEN SHOULD YOU ANNUITIZE?



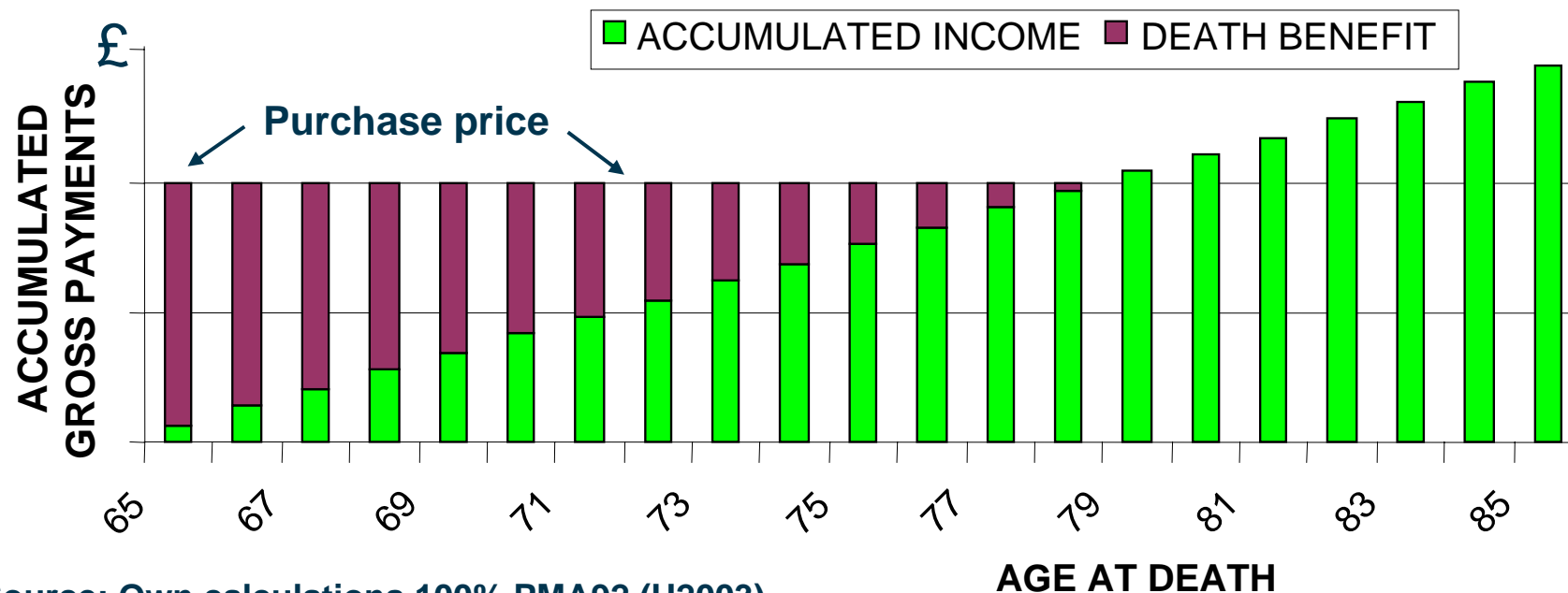
## Annual Mortality Cross Subsidy



# DEATH BENEFITS UNDER A MONEY BACK ANNUITY



On death any excess of the original purchase price over the gross annuity payments already received is returned to the annuitant's estate



Source: Own calculations 100% PMA92 (U2003)

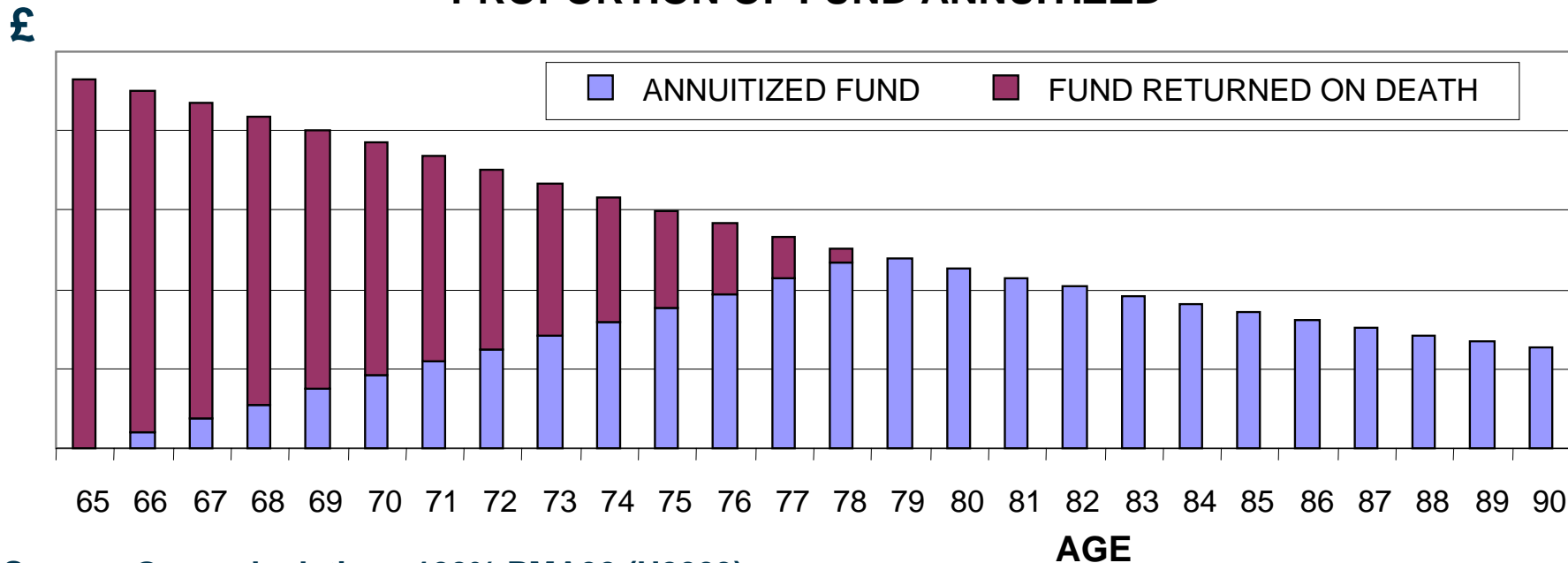
The Money-Back annuity allows a pensioner to lock into investment and longevity guarantees while providing death benefits in early years.

# MONEYBACK ANNUITY DEFERS ANNUITIZATION



**Money-Back Annuities allow annuitization to increase gradually over the early years of the contract**

## PROPORTION OF FUND ANNUITIZED



Source: Own calculations 100% PMA92 (U2003)

**Money-Back annuities allow the mass market to defer annuitization without incurring the risks, costs and complexity of Income Drawdown**

## COST OF MONEYBACK ANNUITIES



Selecting a Money-Back annuity is optional. The cost of the guarantee results in a lower income. The Money-Back annuity results in a redistribution of benefits from those living longer to those dying early.

Age	Male Single Life			Joint Lives		
	No g'tee £	MB g'tee £	% age red'n	No g'tee £	MB g'tee £	% age red'n
65	7449	6878	7.7%	6247	6190	0.9%
75	10653	8870	16.7%	7874	7505	4.7%

Source: Prudential £100,000 purchase price June 2004

The cost is not very high on joint life cases. On single life cases cost becomes significant as age increases to 75.

## MONEY BACK GUARANTEE - THE CONSUMER PERSPECTIVE



- Removes single biggest consumer objection to annuities:  
***“If I die soon after I retire, the annuity provider will keep my fund”***
- ‘Live or die’ guarantee of getting your money back provides a simple underpin in the mass market
- A lump sum rather than continuation of current income for a limited period
- Very easy to explain and for consumers to understand
- Avoids uncertainty - allows a pensioner to lock into investment and longevity guarantees to provide a guaranteed lifetime income
- Alternatively the Money-Back option can be used with flexible investment linked annuities
- The cost of the guarantee is transparent and allows consumers to make an informed choice.
- Removes a significant barrier to pre-retirement saving.

**The introduction of “value protected” annuities in the UK allows a partial money back option but it has two serious flaws...**

- The inability to pay any benefit under value protection after age 75 means that the simple money back concept cannot be provided
- The tax charge of 35% on the lump sum death benefit, which has been carried over from the Income Drawdown regime, is too high for the mass market.

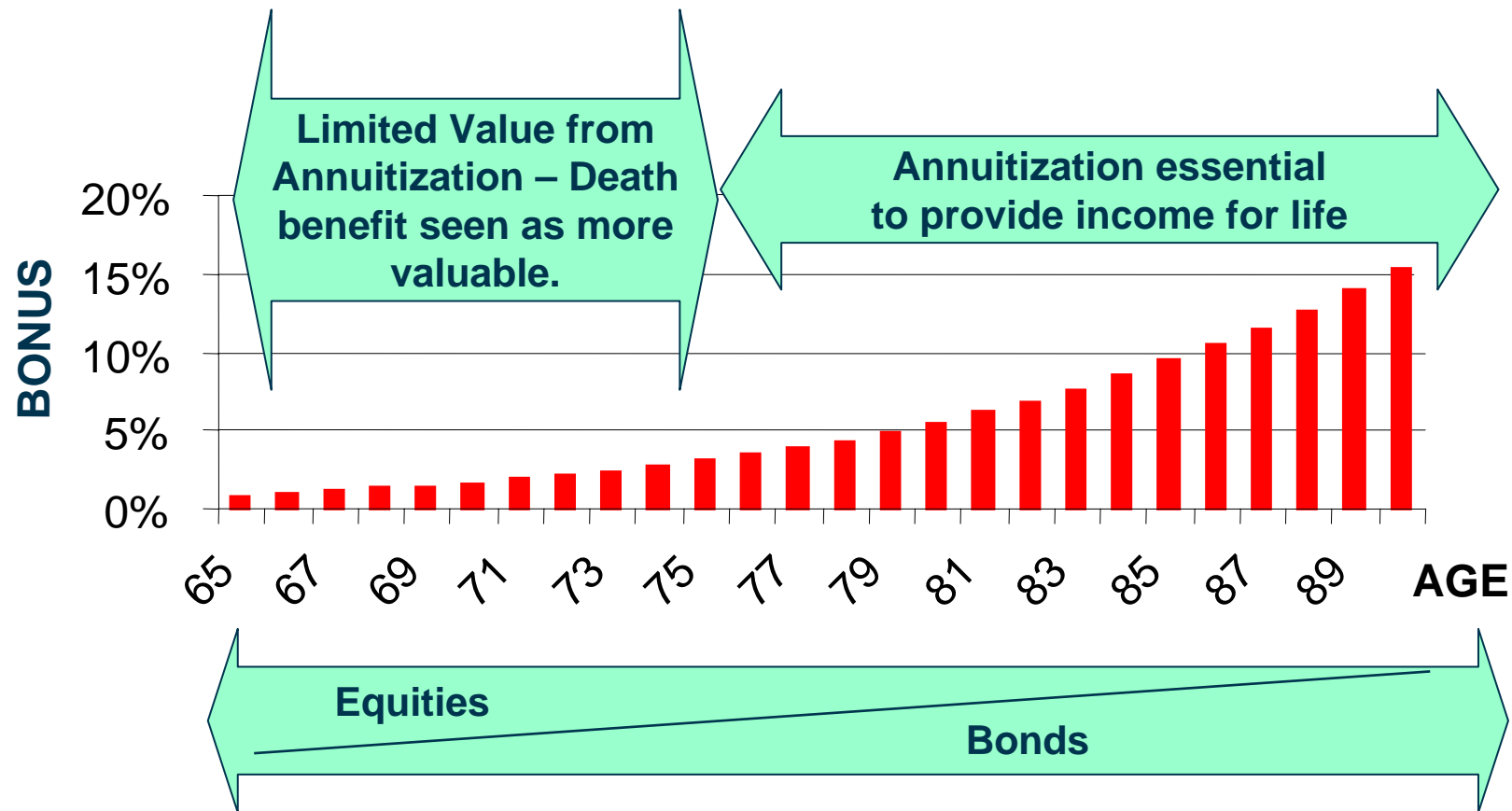
**Allowing value protection beyond 75 will provide a clear message to savers and annuitants that they can ensure they get full value from their pension savings, no matter when they die.**

- UK Regulations effectively require guaranteed annuities to be backed by Government or Corporate Bonds
- 100% investment in bonds over a 20 year period is not an optimal investment strategy!
- Level fixed annuities are exposed to inflation risk
- Long term bonds are in short supply
- A mixed portfolio should provide a higher expected return over 20 years
- Those that can afford to take investment risk should do so in early years
- As pensioners get older and their life expectancy reduces then a more cautious investment approach becomes increasingly appropriate
- Mortality cross subsidy overshadows any investment return once pensioners are in their 90s so fixed annuities invested in bonds become the optimal solution.

# WHEN SHOULD YOU ANNUITIZE AND HOW SHOULD YOUR ANNUITY FUND BE INVESTED?

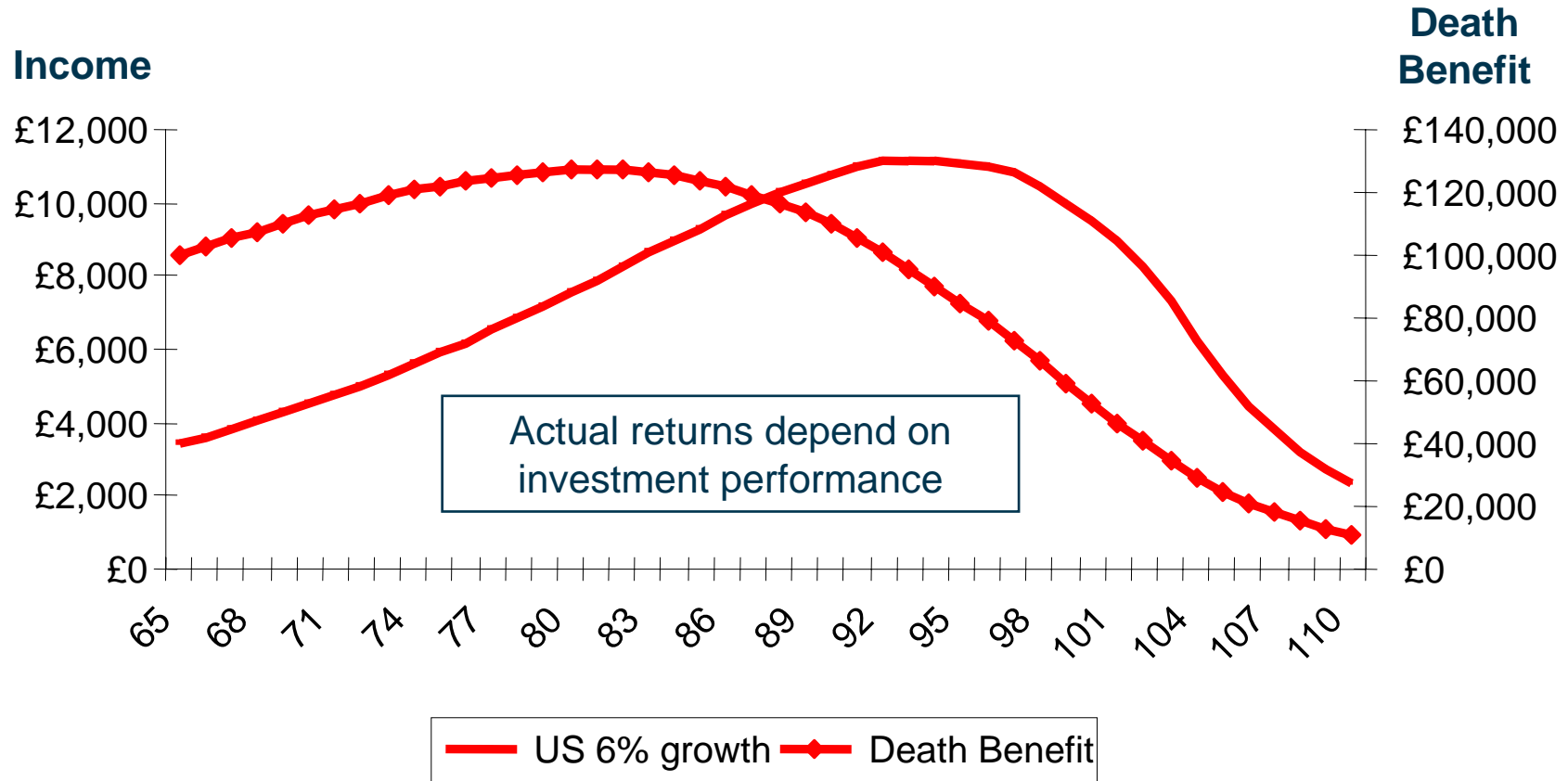


## Annual Mortality Cross Subsidy



Investment split - Equities : Bonds

## US WITHDRAWALS - IRS REQUIRED MINIMUM DISTRIBUTION FACTORS

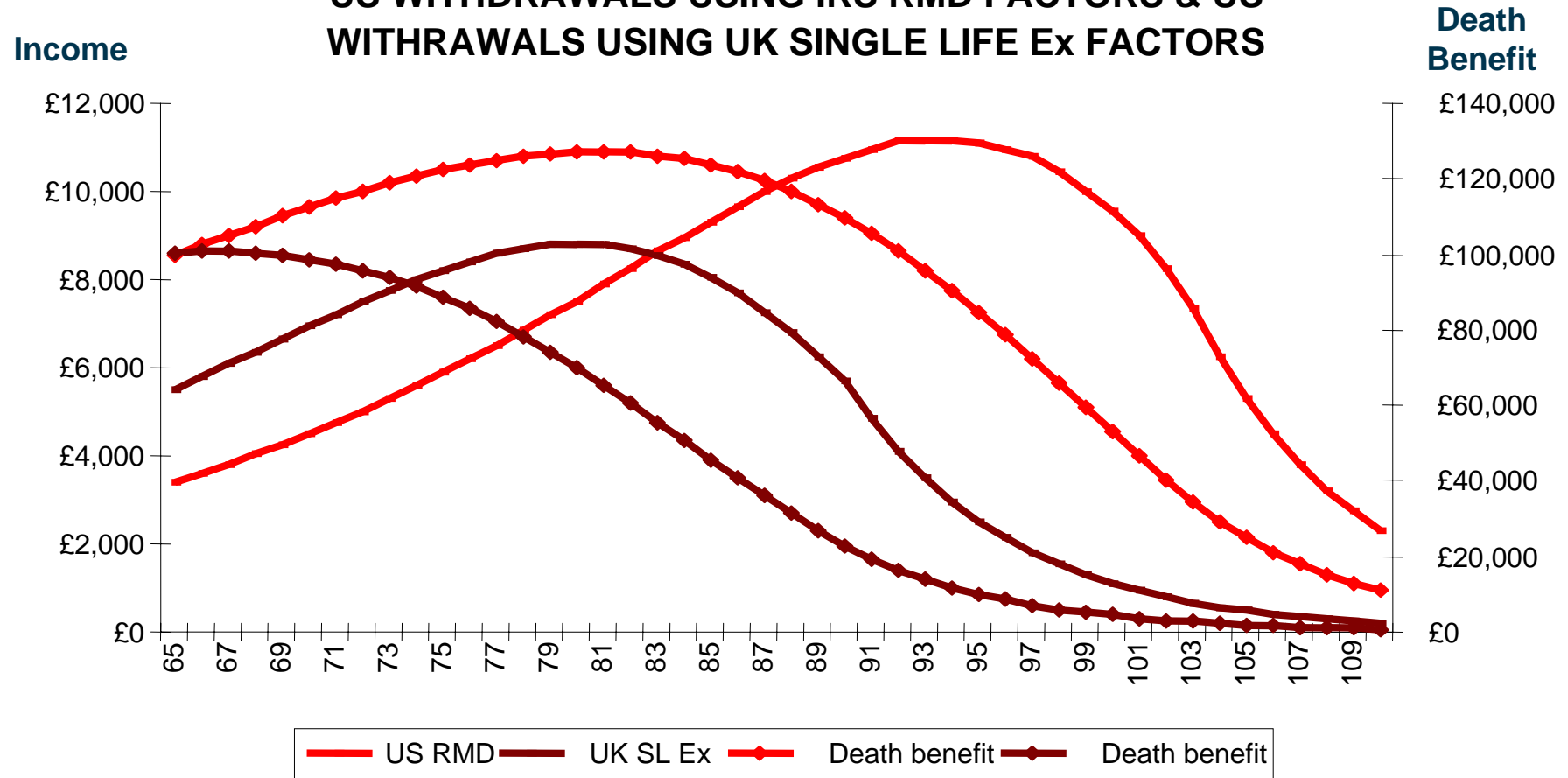


Source: Own calculations Male age 65 income taken yearly in arrears; 6% p.a. growth rate; IRS RMD factors

# TAKING HIGHER INCOME EARLIER RISKS INCOME SUSTAINABILITY AND REDUCES DEATH BENEFITS



## US WITHDRAWALS USING IRS RMD FACTORS & US WITHDRAWALS USING UK SINGLE LIFE Ex FACTORS

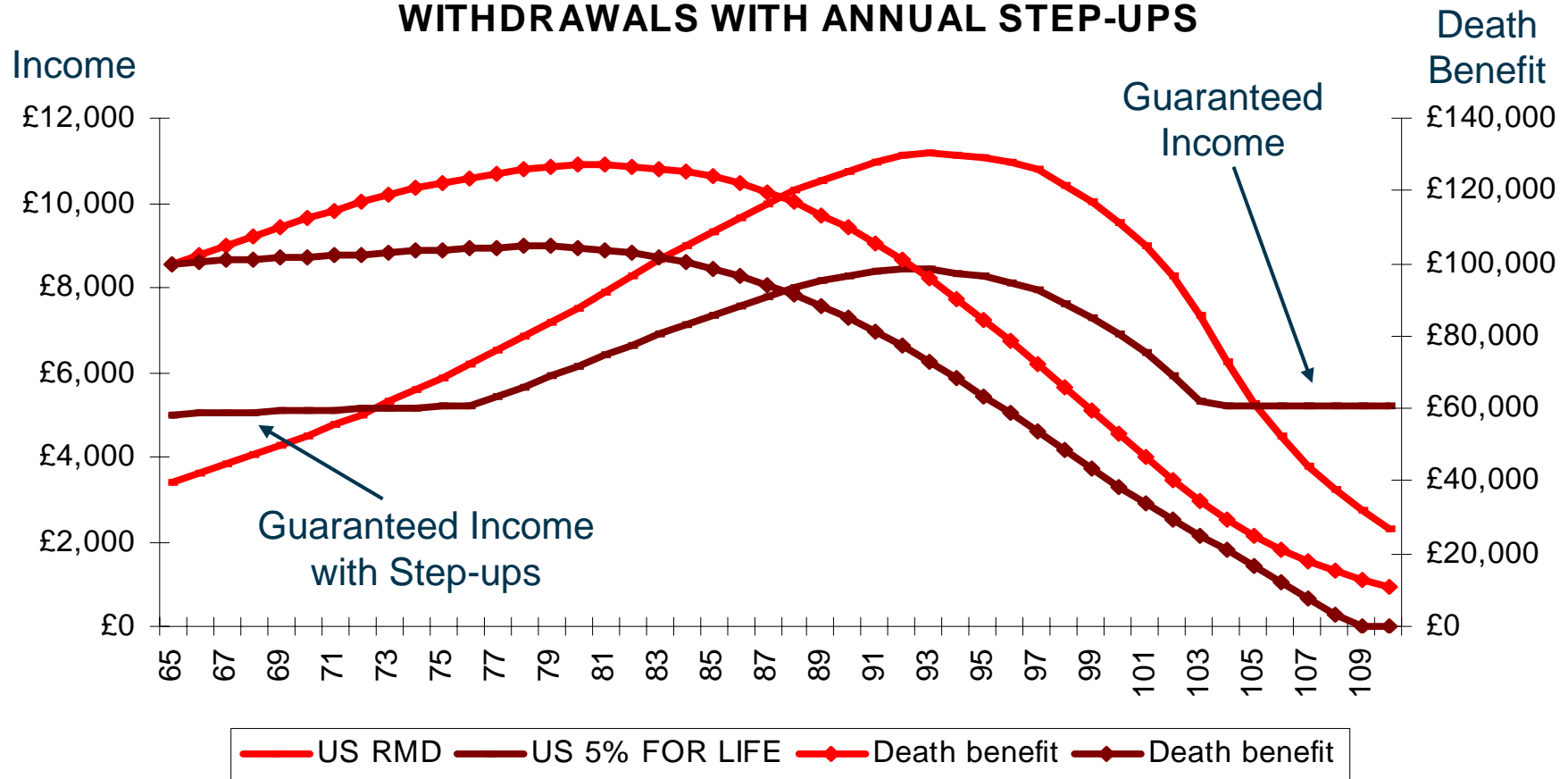


Source: Own calculations Male age 65 income taken yearly in arrears; 6% p.a. growth rate; IRS RMD factors; 100% UK PMA92 (U2003)

# GUARANTEED LIVING BENEFIT



## IRS RMD WITHDRAWALS & 5% FOR LIFE GUARANTEED MINIMUM WITHDRAWALS WITH ANNUAL STEP-UPS

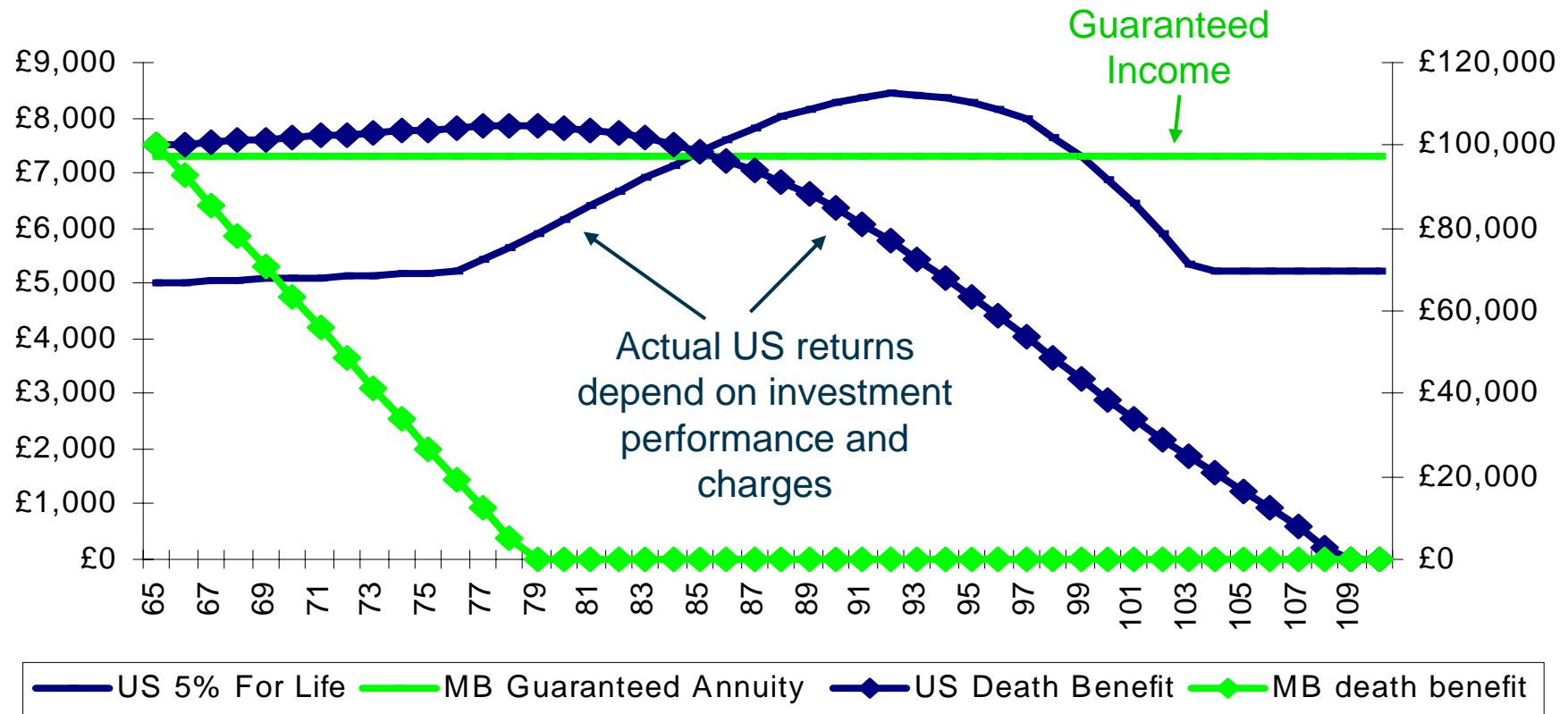


Source: Own calculations Male age 65 income taken yearly in arrears; 6% p.a. growth rate; IRS RMD factors; 0.6% p.a. Living Benefit charge

# COMPARISON WITH UK GUARANTEED MONEY-BACK ANNUITY



## US 5% GUARANTEED FOR LIFE MINIMUM WITHDRAWALS & UK GUARANTEED MONEY-BACK ANNUITY

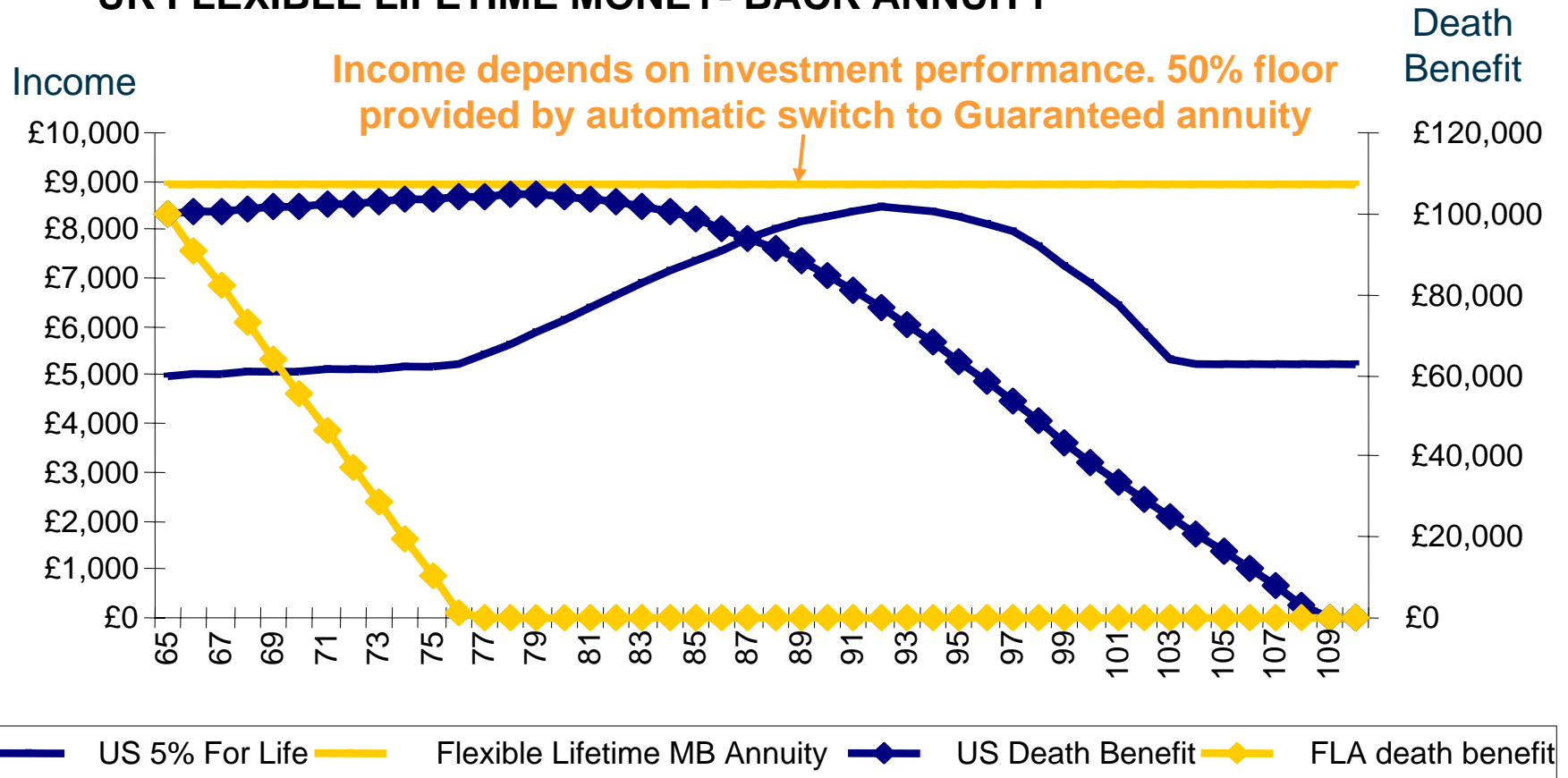


Source: Own calculations Male age 65 income taken yearly in arrears; US 6% p.a. growth rate & 0.6% p.a. Living Benefit charge; UK 4% growth & 100% PMA92 (U2003)

# COMPARISON WITH UK FLEXIBLE LIFETIME MONEY-BACK ANNUITY



## US 5% GUARANTEED FOR LIFE MINIMUM WITHDRAWALS & UK FLEXIBLE LIFETIME MONEY- BACK ANNUITY



Source: Own calculations Male age 65 income taken yearly in arrears; US 6% p.a. growth rate & 0.6% p.a. Living Benefit charge; UK 6% growth to age 90, 4% thereafter & 100% PMA92 (U2003)

- UK Pensioners
  - Could increase income by taking more investment risk
  - UK Government needs to allow full Money-Back option to allow consumers more choice around the trade off between income and death benefit
  
- US Pensioners
  - Could significantly increase income by reducing death benefits and embracing annuitization

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