The Actuarial Profession
making financial sense of the future

Pensions Conference 2011
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Defined Contribution

The latest thinking for the new environment

Investment Governance Group (IGG)

- Joint Government-industry group sponsored by HMRC and DWP
  - Encourage industry ownership of DC
  - Build on and promote Myners' Principles for DC
- Aimed at all stakeholders
  - Trustees
  - Employers
  - Advisers
  - Pensions providers
  - Members
- Not a legal requirement
  - Viewed as Best Practice
  - But adherence should result in better outcomes for members and more engaged employees

IGG - Six principles

1. Clear roles and responsibilities for investment decision-making and governance
2. Effective decision-making
3. Appropriate investment options
4. Appropriate default strategy
5. Effective performance assessment
6. Clear and relevant communication with members

So what does this mean in practice?

Fiduciaries need to …

1. Consider the risk tolerance distribution of the membership
2. Understand the ‘outcome’ needs and objectives of the membership
3. Develop an appropriate investment choice/default framework
4. Derive a set of strategic objectives for the default

Pension myths?

- Low-income workers are most at risk of inadequate pension outcomes
- Low-income workers should take less risk with their pension investments

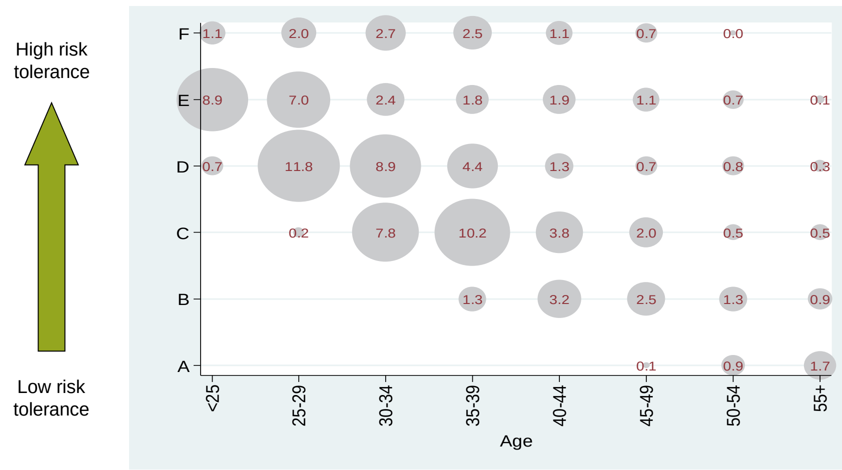
State benefits are perhaps the most important aspect for low-income workers

Pension myths?

- High-income workers are least at risk of inadequate pension outcomes
- High-income workers should take more risk with their pension investments

High-income workers might benefit from focusing first on understanding their income needs

1. Consider risk tolerance distribution of membership



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2. Understand the 'outcome' needs objectives of membership

- The table below provides an example comparison of each member profile's projected replacement ratio (RR) with their desired replacement ratio.

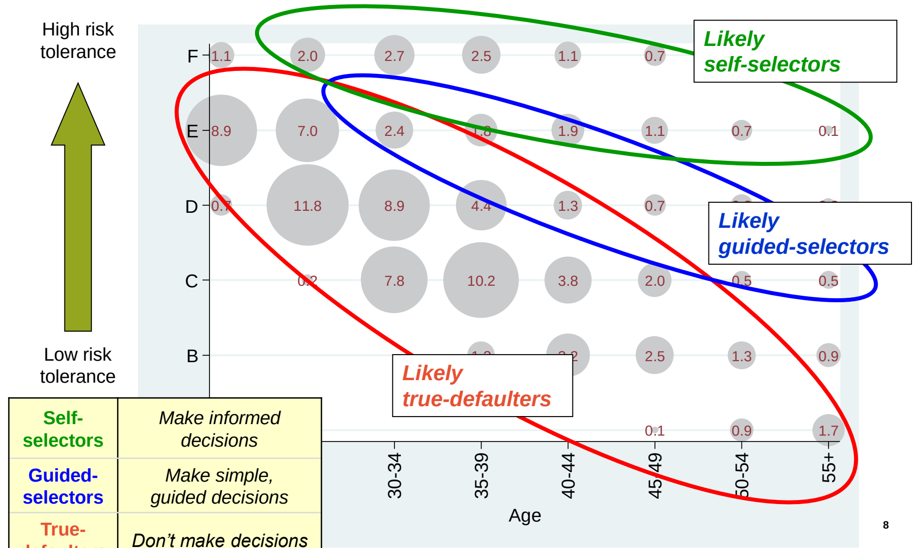
Example member	Desired RR[1]	Projected State pension	RR required from Plan[2]	Projected RR from Plan	Difference
1 *Low earner, low progress*	67%	56%	*11%*	26%	**+ 15%**
2 *Low earner, modest progress*	67%	46%	*21%*	24%	**+ 3%**
3 *Mid earner, modest progress*	61%	18%	*43%*	18%	**- 25%**
4 *High earner, high progress*	59%	7%	*52%*	10%	**- 42%**

1. *Desired replacement ratios are taken from our general population research – "The future of UK retirement savings" (2009)*
2. *Obtained by deducting projected State Pension replacement ratio from the desired replacement ratio*

Member 1 and 2 – modest return, low risk

Member 3 and 4 – higher return, modest risk

3. Develop appropriate choice/default framework



Self-selectors	*Make informed decisions*
Guided-selectors	*Make simple, guided decisions*
True-defaulters	*Don't make decisions*

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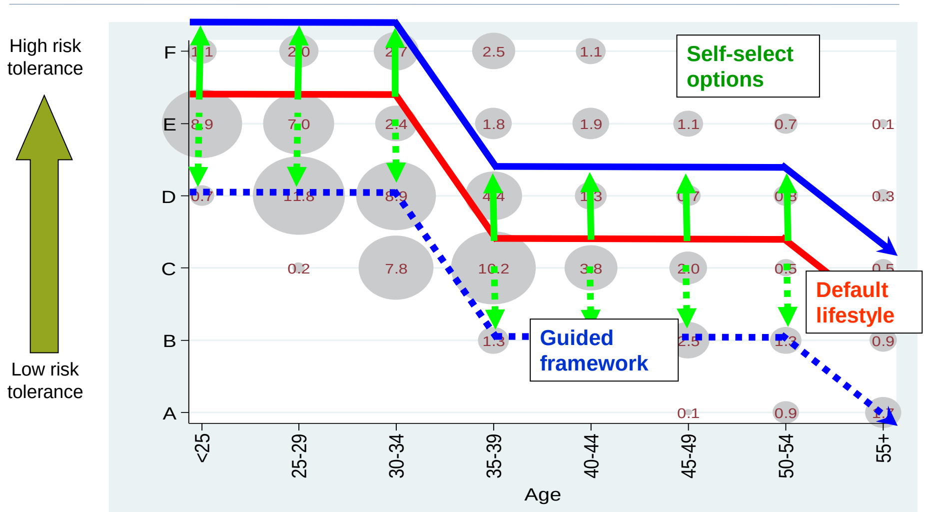
3. Develop appropriate choice/default framework



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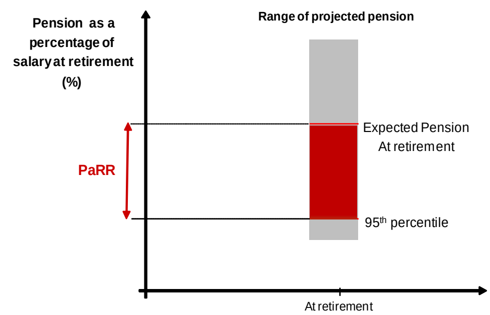
4. Derive a set of strategic objectives for the default

Long-term risk measure …



Pension at Risk at Retirement (PaRR)

There is a 1-in-20 chance that the replacement ratio at retirement will be this much, or more, lower than the expected replacement ratio.

Short-term risk measure …

Retirement at Risk (RaR)

Minimum increase in working life required to recover from a 1-in-20 event over one year in order to maintain expected replacement ratio.

Summary

4 steps to building an effective default strategy …

1. Consider the risk tolerance distribution of the membership
2. Understand the ‘outcome’ needs and objectives of the membership
3. Develop an appropriate investment choice/default framework
4. Derive a set of strategic objectives for the default

Defining your DC governance capability

- The key components of governance capability:

Time ⟷ **Expertise** ⟷ **Organisational effectiveness**

- Maximising the chance of success:

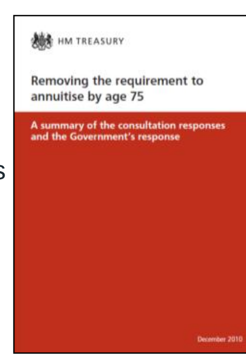
  Short term - align DC plan strategy with existing governance capability

  Long term - build a level of governance capability consistent with value creation ambitions

Don't bite off more than can you can chew!

New annuity flexibility rules for DC arrangements

- Unlimited funds can be withdrawn if member has sufficient 'income' to meet Minimum Income Requirement (MIR) - £20,000 pa
  - Scheme pensions and lifetime annuities
  - pensions from certain overseas pension schemes
  - State pensions (basic and additional) in payment
  - No adjustment for age, couples or indexation
- Treasury will review MIR level at least every 5 years


HM TREASURY

Removing the requirement to annuitise by age 75

A summary of the consultation responses and the Government's response

December 2010

A radical reshaping of retirement options

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Annuity reform – what might it look like for DC members?

- Ms Jones:
  - Aged 35 in May 2011
  - No DB pension entitlements
  - DC assets from previous employer
  - Projected pension above MIR
- Does the MIR become a 'target'?
- How does Ms Jones monitor her progress towards MIR?
  - She'll need to know about her other benefits

How does Ms Jones know to start changing investments?
Suggests a need for effective communication and modellers
Suggests collecting and recording retained benefit data? When?

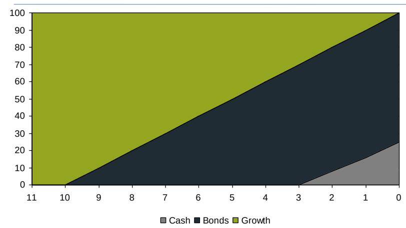
What if the DC member is a smoker?

- Let's assume Ms Jones has reached 65
- After maximum tax-free cash, and State pension, she can buy a DC annuity of £21,000 a year ie £1,000 more than the MIR. So she chooses to:
  - Buy an annuity to meet MIR (@25:1)
  - Take remaining c£25,000 as lump sum
- But if Ms Jones is a smoker, she can get better annuity terms (say £23,000pa):
  - Buy a smokers annuity to meet MIR (@22:1)
  - Take remaining c£66,000 DC as lump sum

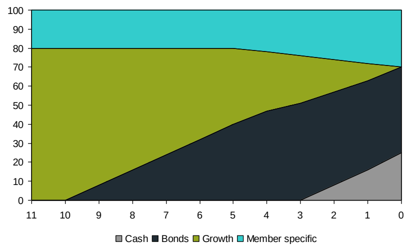
Shopping around for enhanced annuities has material cash benefits
Likely to impact on retirement processes and annuity rates

* As a smoker, she could have bought more than £1,000 a year over the MIR if she had requested an enhanced annuity.

Annuity reform – what else might it do to DC?



- 2010 approach to lifestyle
- Typically aiming to match liabilities:
  - 75% fixed interest bonds, 25% cash
  - To match 75% level annuity, 25% cash



- 2011+ approach to lifestyle?
  - ‘Excess’ fund is different for each member
  - ‘MIR’/’excess’ ‘boundary’ different for each member
  - Bonds still make sense for annuities – up to MIR?
  - 25% of whole fund in Cash for tax-free lump sum

Perhaps a different investment approach for <u>every</u> member?

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Absolute Return Investing in Defined Contribution Pension Schemes

- What is Absolute Return Investing?
- Why is Absolute Return Investing important in a DC scheme?
- How are absolute returns achieved?
- Absolute Return Investing vs Diversified Growth Funds
- Other ideas …

What is Absolute Return investing?

- Investing with the aim to deliver positive returns over a specified time period, regardless of market conditions
  - Typically with a secondary objective of controlling volatility

- As opposed to Relative Return investing where the objective is to outperform an index benchmark (eg FTSE All Share, MSCI, iBoxx Corporate bond etc…)

Delegation of responsibility to manager

What is Absolute Return investing?

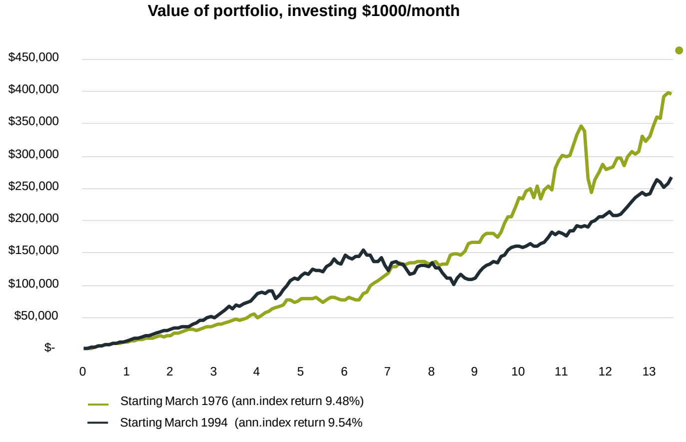
- Examples of absolute return mandates
  - Investment objective to deliver cash +5%pa over rolling three year periods
  - with a volatility of between 1/3rd and ½ of that experienced by equity markets

- Other examples
  - Inflation (RPI) +4% pa
  - Fixed target of say 8% pa

Why is Absolute Return Investing important in a DC scheme

- Consistency of returns in younger ages is important
  - Pensions might be long term savings vehicles – but, members do not want volatility in their pensions pot
  - SMPI statements, FSA statements
  - NEST default fund is set at low risk assets in early life so as individuals are not put of investing right at the start!
- Lifestyling doesn't work
  - Loss of growth in lifestyling period is significant
  - and concept of a single retirement age is anachronistic

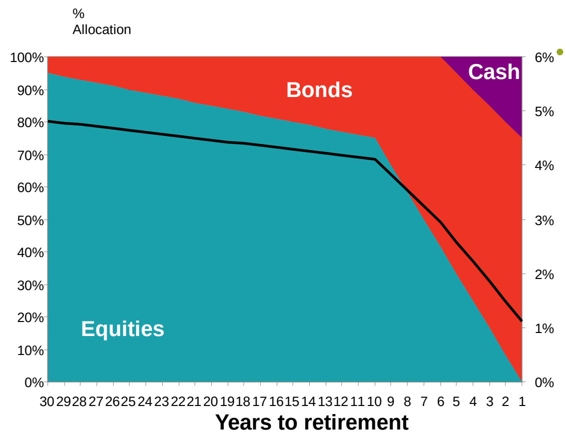
Proof statements



- Though p.a. is the same, outcome is 49% higher with later year rally

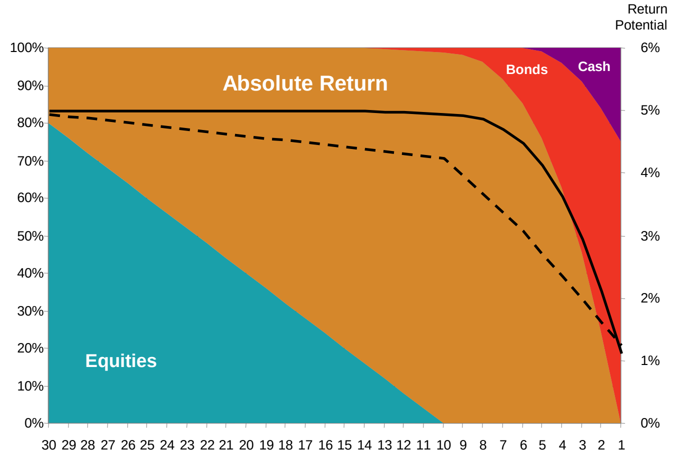
Source: Bloomberg and Standard Life Investments

DC lifestyle fund investment

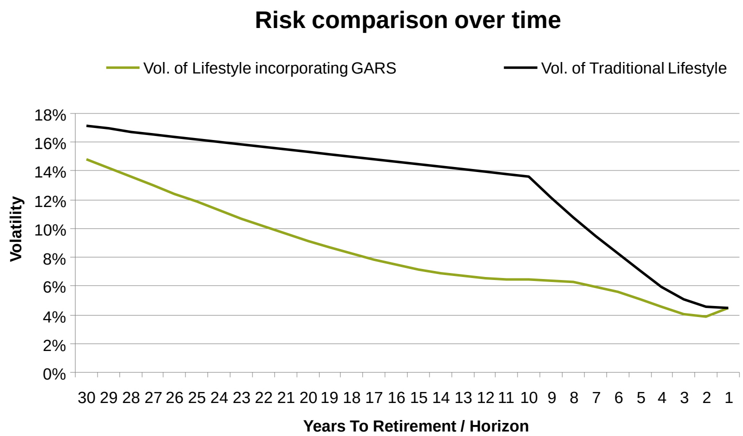


- Expected return falls quickly once asset allocation changes

DC Lifestyle with absolute returns

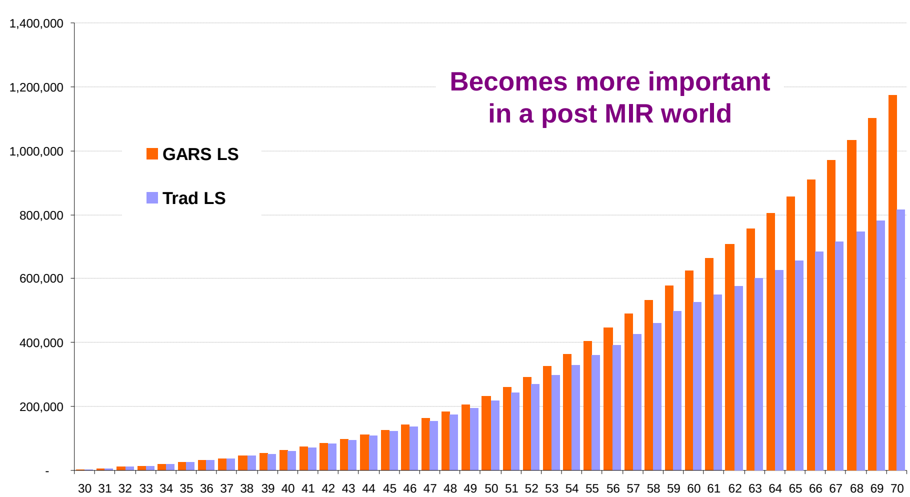


Volatility of lifestyle strategies



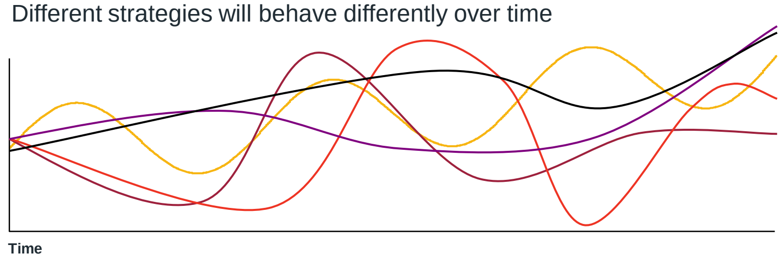
Growth for longer

After 'NRA'

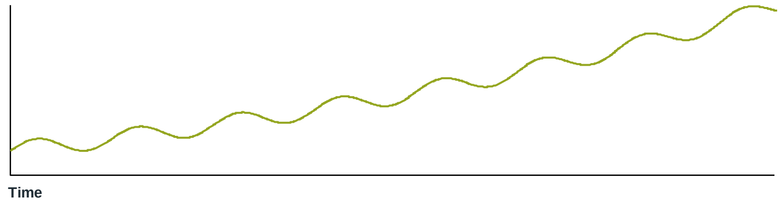


Its all about diversification

Different strategies will behave differently over time



The challenge is to select the right mix of strategies in the right size

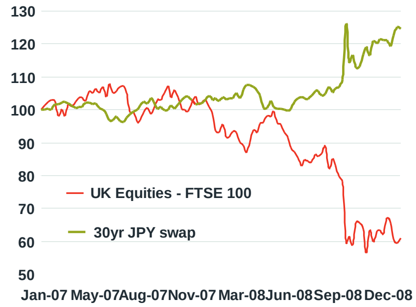


Key criterion

- All investment strategies must have good expected returns over medium term time horizon (say 2 - 5yrs)
- All strategies must exhibit genuine diversification when blended together
  - Looking for negatively correlated investment ideas
- Must be liquid and scalable if used in a daily priced fund

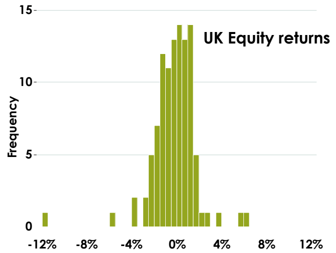
Offsetting fortunes

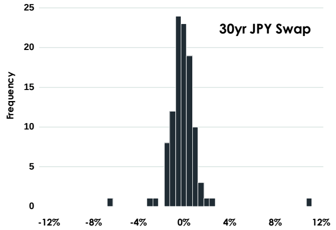
- 40% Equity fall in 2008
- JPY swap negatively correlated (ρ = -0.7)
- Large moves in either position are offset
- In a stable market both positions made money



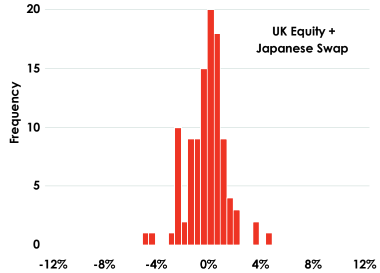
Source: Bloomberg, Weekly Data

Two long term trades may be better than one



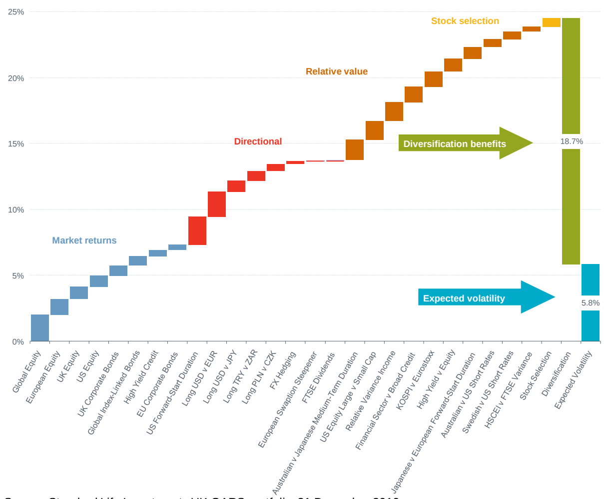


- Even large equity exposure can be offset, giving:
  - lower volatility
  - higher return
  - more positive weekly returns



Source: Bloomberg/Standard Life Investments

Risk profile of multi-market return strategy



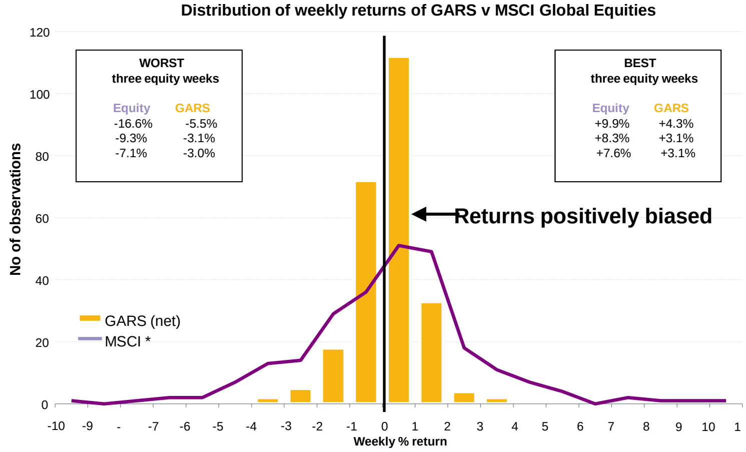
- The portfolio is exposed to multiple diversified market risks
- 24.5% is total stand-alone investment risk chasing returns
- Equivalent equity volatility
- Independent risk analysis shows the benefits of investment diversification
- Aggregate risks are comparable

Source: Standard Life Investments UK GARS portfolio, 31 December 2010

* Please note that the strategy Relative Variance Income is an amalgamation of three strategies previously listed individually as Eurostoxx vs. S&P variance, Nikkei vs. S&P Variance, Nikkei vs. FTSE Variance and DAX vs. S&P Variance

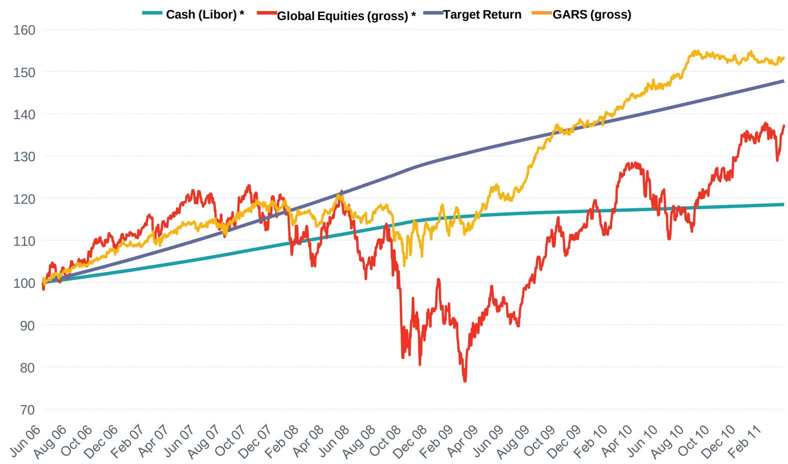
GARS avoids the extreme returns of equity investing

Distribution of weekly returns of GARS v MSCI Global Equities



Source: Standard Life Investments, net performance from 12/6/2006 to 31/03/2011
Portfolio performance is based on the £, institutional pooled pension portfolio
* Source: Thomson Datastream, MSCI World (£) (net of tracker fund fee)

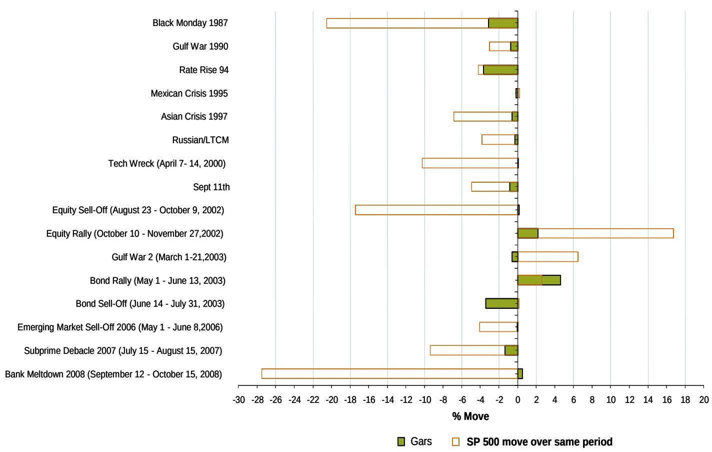
Performance – Global Absolute Return Strategies Fund



Source: Standard Life Investments, gross performance from 12/6/2006 to 31/03/2011
Portfolio performance is based on the £, institutional pooled pension portfolio
* Source: Thomson Datastream, UK 6 month LIBOR and MSCI World (£)

* Source: Thomson Datastream
Fund performance is based on the institutional pooled pension fund, gross of fees

Historical scenario analysis
Historical Stresses as of end of February 2011



Source: RiskMetrics, 28 February 2011

Diversified Growth Funds

Good points

- Superior blend of asset risks compared to traditional 'balanced fund'
- Access to asset classes that many schemes could not access in isolation
  - Insufficient governance
- "Easy" for members/ trustees to understand

Challenges

- Limited choice of additional asset classes
- Many asset classes tied to growth conditions
  - Diversification benefits significantly reduced in volatile markets
- No focus to continually provide an absolute return
  - Asset allocation will be relative to the strategic benchmark

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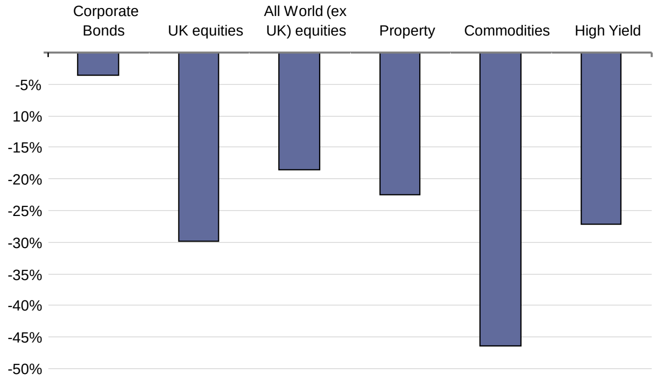
2008 – A year when 'diversification' did not work



Benchmarks:

UK Equities
FTSE All Share

World Equities
FTSE World (ex UK)

Corporate Bonds
Merrill Lynch Non Gilts

Property
UK IPD Total Return Index

Commodities
S&P GSCI Commodity

High Yield
Merrill Lynch Global High Yield

All ultimately rely on positive economic growth

Source: Standard Life Investments

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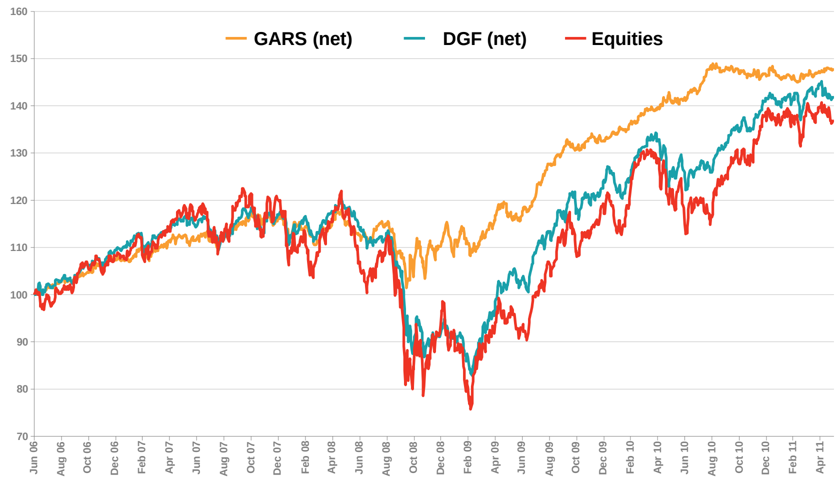
True Diversifcation



Source: Bloomberg, May 2011

Other ideas …

- Many members still need to buy an annuity at retirement
- So it is volatility relative to annuity costs which is important
- Biggest lever in annuity rates is interest rates
- Use unfunded interest rate protection to deliver the duration needed but without sacrificing the growth potential
- Interest rate swaps can be used and therefore need to deliver LIBOR
- Which is just what the absolute return fund is designed to do

No unmanaged risk