The Actuarial Profession
making financial sense of the future

Current Issues in Pensions
Marcus Mollan, Head of Solutions Research, LGIM

Improving DC Member Outcomes

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Introduction

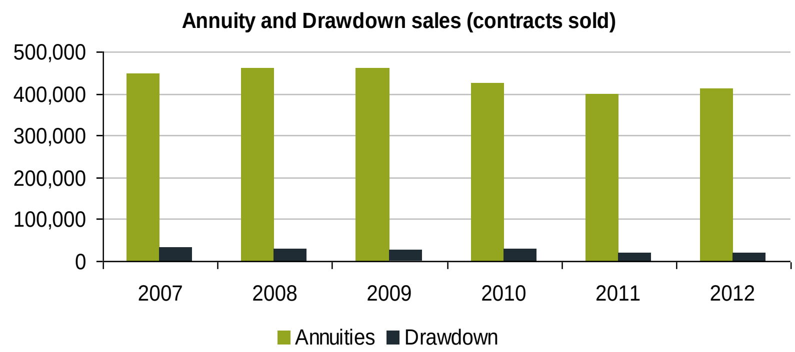
DC objectives and outcomes

- Objective of a DC pension is to provide a satisfactory income in retirement
- A good measure of outcome is the "replacement ratio", for example:
  - Member's final salary = £30,000
  - DC pot buys a pension of £15,000
    - Replacement ratio for member = 50%
- Some members may wish to select their own investment strategy…
  - …but in practice, most (c. 90%) will follow the "default" strategy
- So the default strategy must be designed to meet the needs of the typical member

Key factors affecting the replacement ratio

- Size of pension pot on retirement – impacted by
  - Amount and timing of contributions – higher and earlier is better
  - Rate of investment growth – higher is better
- Amount of income that can be bought with each £100 of pension pot = Annuity prices: impacted by (among other things)
  - Long-term bond yields at retirement – higher yields are better
  - Longevity expectations

Retirement income market



Source: L&G estimate based on ABI Statistics

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L&G experience

- Level annuities (93%)
- Fixed increases (5%)
- LPI/RPI (2%)

- No dependants pension (44%)
- 50% dependants (43%)
- 66% dependants (5%)
- 100% dependants (8%)

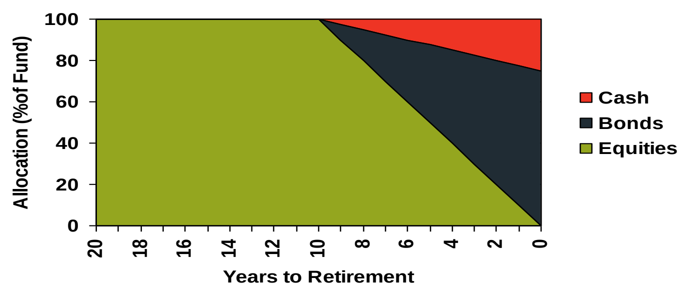
Key factors affecting the replacement ratio

- To achieve the best member outcomes, DC investment strategies should seek to strike a balance between:
  - Expected investment growth
    - higher expected growth is better
  - Certainty about the level of investment growth
    - more certainty is better
  - Protection against adverse changes in bond yields (annuity prices)
    - less exposure is better

Lifestyling

Traditional approach to DC defaults: the equity-based lifestyle approach

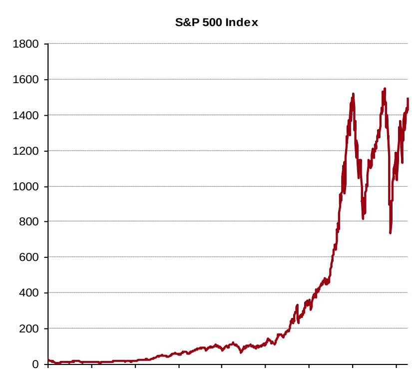
- “Lifestyling” is largely equity-focused…but involves switches near retirement
- A simple lifestyle approach as shown below

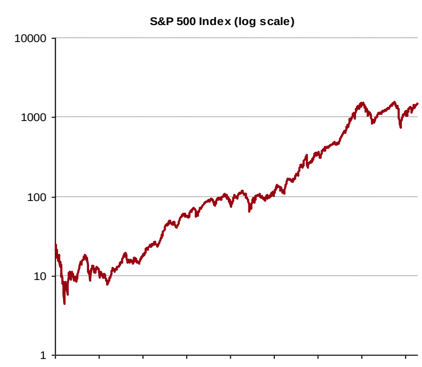


- Cash element “locks in” a cash lump sum; bonds element “locks in” to annuity prices
- Different lifestyle approaches have different speeds of phasing, over different time periods

Source: LGIM

Equity investment – strong long-term returns, but with risk





Data source: Bloomberg LP

Equity markets don’t always go up (though many in the 1980s & 1990s thought they did)

Rationale for decreasing % in equities as member ages

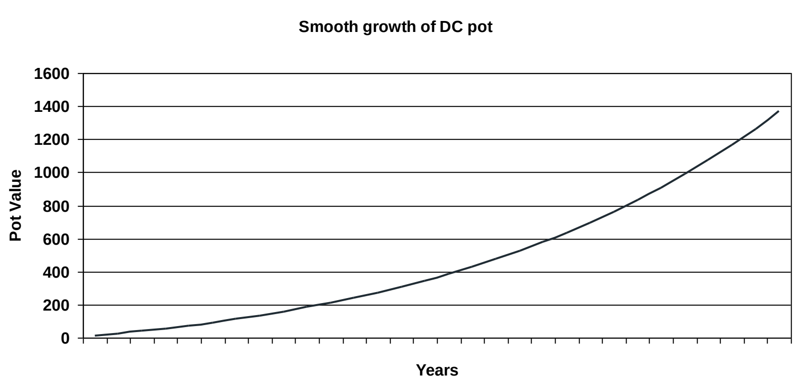
A. Size of pot increases, so % falls later in life have a larger £ impact

B. "Human capital" declines over time

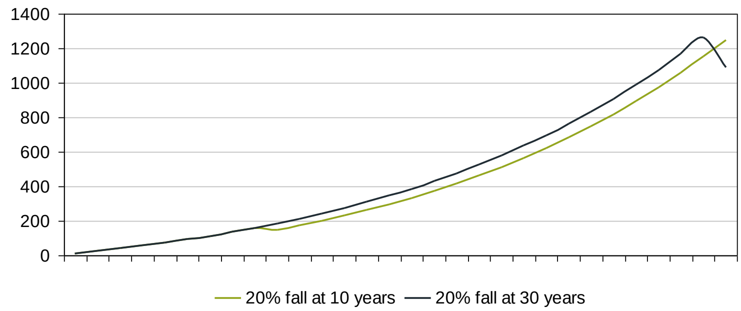
C. Less time to "make up" investment losses (e.g. by doing extra work)

D. Less time to benefit from "long-term smoothness" of equity returns

A. The ideal DC experience – smooth growth…



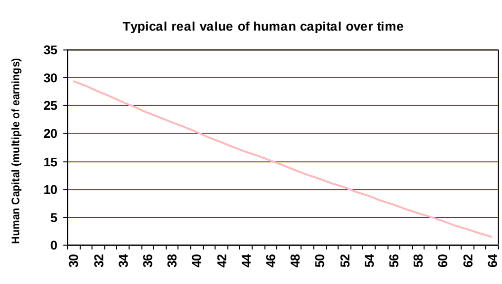
…But equity falls later in life have more impact on the end result



- While the % fall is the same for the black line, the £ loss is greater
- So it is natural to reduce the exposure to risky assets in later years

B. Human capital

- An individual's assets are made up of:
  - Investment assets e.g. DC pension
  - "Human capital": the value of their future earnings
- Human capital declines over time, due to fewer future years of earnings



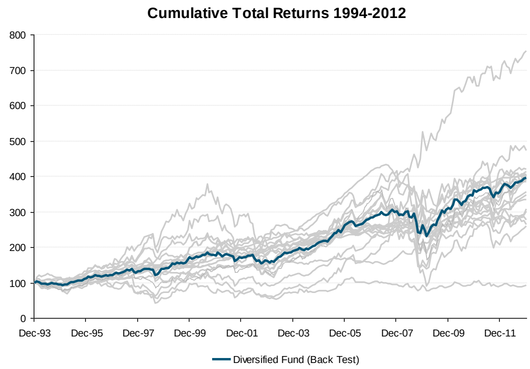
Source: LGIM estimates

Human capital: the implications

- Human capital can represent a high implicit bond allocation in early years…
  - …so it is rational to apply investment assets to non-bonds in those years
- As human capital declines the implicit bond allocation reduces…
  - …so it is rational to increase the pension allocation to bonds
- This argument is weaker for those whose income is less secure or less “bond-like” (e.g. employees in economically-sensitive industries, equity traders, etc)

Diversification

Asset Returns to UK investor, 1994 – 2012

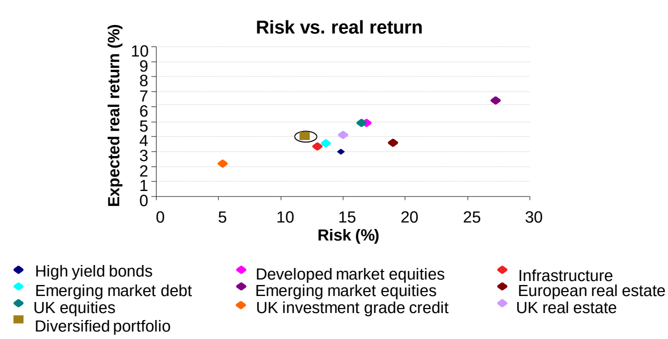


- Individual asset classes can be combined into a diversified portfolio with a smoother return path than any one asset

Source: LGIM, Datastream, Bloomberg LP

Objective of diversification: more 'efficient' outcome

- Individual asset classes can be combined into a diversified portfolio with a better risk/reward trade-off than any one asset

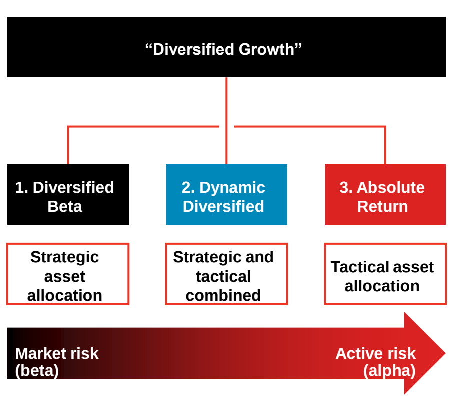


Source: LGIM illustration

Diversification benefit: avoiding "volatility drag"

- **Portfolio A ("Equities"):**
  - **50% of the time returns +20%**
  - **50% of the time returns -20%**
- **Portfolio B ("Diversified"):**
  - **50% of the time returns +10%**
  - **50% of the time returns -10%**
- Over **1 year** the expected return of each portfolio is the same: **0%**
- **Over the most likely 2-year period** – one up, one down – the returns are:
  - **Portfolio A:** £120 x 0.80 = **£96 (- 4%)**
  - **Portfolio B:** £110 x 0.90 = **£99 (- 1%)**
- **Portfolio B outperforms** in **three out of four** 2-year periods (down/down, up/down, down/up),
- **Portfolio A outperforms** in **one out of four** 2-year periods (up/up)
- **The expected 2-year annualised rate of return for Portfolio B is higher than for Portfolio A**

Types of Diversified Growth Fund

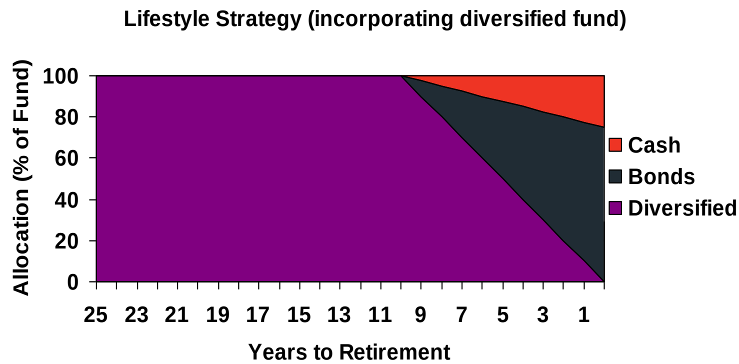


Source: LGIM, picture is for illustrative purposes only.

1. **Diversified Beta Funds**
   - Focus on efficient exposure to a wide range of assets, with strategic asset allocation driving risk and return
2. **Dynamic Diversified Funds**
   - Typically target a cash-plus or inflation-plus objective across a full market cycle. The returns and risks depend both on market returns and on the active management skills of the manager
3. **Absolute Return Funds**
   - Aim to deliver returns across all market environments and rely on the ability of the fund managers to access return from market inefficiencies

Alternative lifestyle example

- The lifestyle example below uses a diversified fund to reduce equity exposure and gain exposure to a wider range of assets

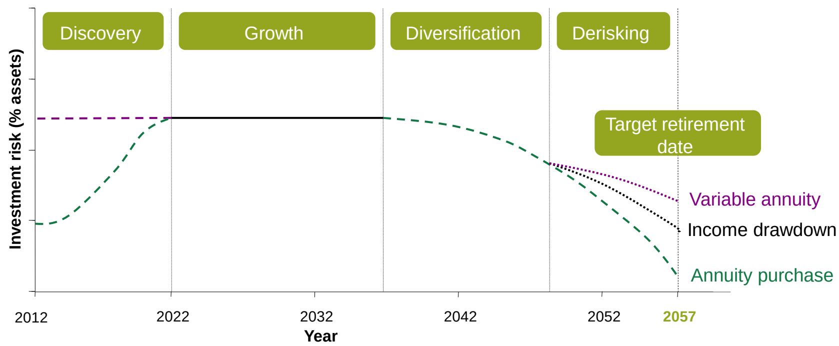


Source: LGIM

One size fits fewer

The target date approach – example: 2057 fund

- Members are invested in a single fund where the asset allocation evolves over time
- Asset allocation is dynamically managed by an investment manager, or adjusted formulaically over time
- Fund is “named” after the anticipated year of retirement
- Potential for a range of different approaches to target different retirement investment plans



Changes to members’ needs

- DC becoming more mainstream, so a wider range of member types
- Members’ appetite for risk varies:
  - Other wealth
  - Other pension entitlements eg DB
- Increasing numbers will retire later or phase their retirement
- Increasing numbers will not want an annuity immediately at retirement
  - Longer lifespan
  - More flexible drawdown opportunities
  - Switching such people to bonds and cash, only for them to return to risky assets, is illogical

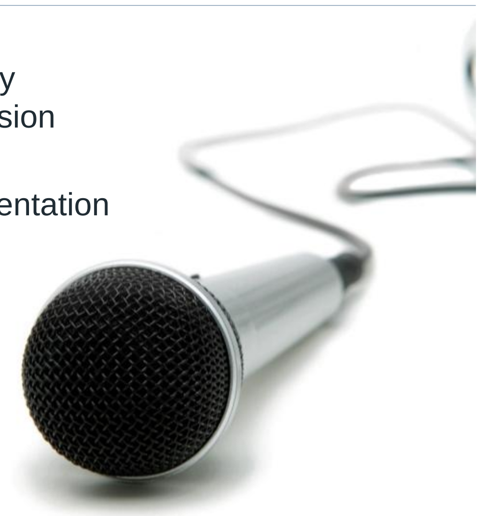
Summary – improving member outcomes

- Focus on the overall outcome, not just some of the component parts
- Make sure you access the benefits of diversification
- Be sensitive to the different needs of different members

Questions or comments?

Expressions of individual views by members of The Actuarial Profession and its staff are encouraged.

The views expressed in this presentation are those of the presenter.



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