What is the future of pensions?

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Overview

- The need for change

- Current situation

- How can we help?

Not enough savings?

- Gap = {Amount p.a. people save} – {Amount p.a. they need to save to have a comfortable retirement}.

- Comfortable retirement is
  - 90% salary for low income,
  - 65% salary middle income,
  - 55% salary high income.

- Ignores property, investments, cash deposits.

- From Aviva 2016 report.

Country	Annual pension savings gap (€bn)	As percentage of country's 2016 GDP
France	241	11%
Germany	461	15%
Italy	99	6%
Spain	192	17%
UK	365	13%

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Not enough savings?

Country	Average replacement ratio for 2016 retirees	Projected average replacement ratio for 2037 retirees
France	53%	28%
Germany	42%	42%
Italy	49%	44%
Spain	48%	29%
UK	39%	31%

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Not enough knowledge?

- Planning for retirement predicts higher retirement wealth

(eg Lusardi 1999).

- Planning requires financial literacy; see Lusardi and Mitchell (2011a) and references therein.

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Financial literacy I

- Klapper, Lusardi and van Oudheusden 2015 posed five questions to test financial literacy.

[Numeracy] Suppose you need to borrow $100.

Which is the lower amount to pay back: $105 or $100 plus three percent?

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Financial literacy I

[Inflation] Suppose over the next 10 years the prices of the things you buy double. If your income also doubles, will you be able to buy:

– less than you can buy today,

– the same as you can buy today, or

– more than you can buy today?

[Risk Diversification]

Suppose you have some money. Is it safer to put your money into one business or investment, or to put your money into multiple businesses or investments?

Financial literacy I

[Compound Interest I] Suppose you put money in the bank for two years and the bank agrees to add 15 percent per year to your account.

Will the bank add more money to your account the second year than it did the first year, or will it add the same amount of money both years?

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Financial literacy I

[Compound Interest II] Suppose you had $100 in a savings account and the bank adds 10 percent per year to the account.

How much money would you have in the account after five years if you did not remove any money from the account?

- More than $150

- Exactly $150

- Less than $150

- Do not know

- Refuse to answer

Financial literacy I

- Financially literate when >= 3 out of the 4 financial concepts are answered correctly.

- 33% of adults worldwide are financially literate [150,000 people in 140 countries surveyed].

- About 65% or more of adults are financially literate in Australia, Canada, Denmark, Finland, Germany, Israel, the Netherlands, Norway, Sweden, and the UK.

- Other surveys show similar results, better or worse depending on the questions.

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Financial literacy II - Lusardi and Mitchell (2011b)

- [Numeracy/Compounding] Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?

More than $102; Exactly $102; Less than $102; Do not know; Refuse to answer. [2/3 correct]

- [Inflation] Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?

More than today; Exactly the same; Less than today; Do not know; Refuse to answer. [3/4 correct]

- [Risk Diversification] Please tell me whether this statement is true or false. "Buying a single company's stock usually provides a safer return than a stock mutual fund."

True; False; Do not know; Refuse to answer. [1/2 correct]

Financial literacy II - Lusardi and Mitchell (2011b)

- In USA for over 50 year olds, find approximately
  - 1/3 answer all three questions correctly,
  - 1/3 answer two questions correctly,
  - 16% answer one question correctly,
  - 10% answer no question correctly.

What should most individuals want from their retirement savings?

Assume here: an income that

– keeps up with inflation, and

– lasts for their lifetime.

Mr Bond

- Member of his company's defined benefit plan.

- His only pension-related decision has been to join his employer's pension plan when he started work.

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What is a defined benefit (DB) plan? Employee's perspective

- He pays 5% of his salary each year to his employer's "1/60th" DB plan.

- Works for 30 years, then he gets 50% of his salary each year in retirement:

Annual pension = 1/60 x {Length of service in years} x {Salary}

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What is a defined benefit (DB) plan? Employee's perspective

- Mr Bond does not have to know about the plan's:

  – Investment strategy,

  – Funding level,

  – Risk profile, etc.

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What is a defined benefit (DB) plan? Company's perspective

- Company pays an unknown percentage of salary roll each year to their DB plan, e.g. 10%.

- Company has limited control over the investment strategy – plan run by trustees.

- The cost of the plan appears in the company accounts.

- Funding levels have fallen below 100% for many schemes for many years (63% on buyout basis in 2016 in UK; Purple Book 2016).

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The present in the UK – DC on the rise

- DB plans are closing (87% are closed in 2016 in UK).

- Most people are now actively in defined contribution (DC) plans, or similar arrangement (97% of new hires in FTSE350).

- Contribution rates are much lower in DC plans

(~21% for DB vs 4% for DC, total, albeit DB includes deficit correcting contributions).

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Size of pension fund assets in 2016
(Willis Towers Watson I)

Country	Value of pension fund assets (USD billion)	As percentage of GDP	Of which DC asset value (USD billion)
USA	22'480	121.1%	13'488
UK	2'868	108.2%	516
Japan	2'808	59.4%	112
Australia	1'583	126.0%	1'377
Canada	1'575	102.8%	79
Netherlands	1'296	168.3%	78

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Mr Bean

- Very similar to Mr Bond.

- But he is in his employer's DC plan.

What is a defined contribution (DC) plan? Company's perspective

- Company pays a known percentage of salary roll each year to their DC plan, e.g. 2.5%.

- No additional contributions are required.

What is a defined contribution (DC) plan? Employee's perspective

- Mr Bean pays 3% of his salary each year to his employer's DC plan, employer also pays 3%.

- He has to choose how to invest his total contributions.

- Until his retirement date, he doesn't know what the value of his pension will be.

What is a defined contribution (DC) plan? Employee's perspective

- Key decisions for Mr Bean pre-retirement in typical DC plan:

  – How much to contribute,

  – How much to invest.

- What information is he given to make these decisions?

- How is the decision framed?

How much to contribute?

- Mr Bean is told that the annual minimum contribution is 3% of his salary and the employer contribution is 3%.

- For each additional 1% that Mr Bean contributes, his employer will contribute 1% too, up to a maximum of 3%. So maximum total contribution is 12%.

How to invest?

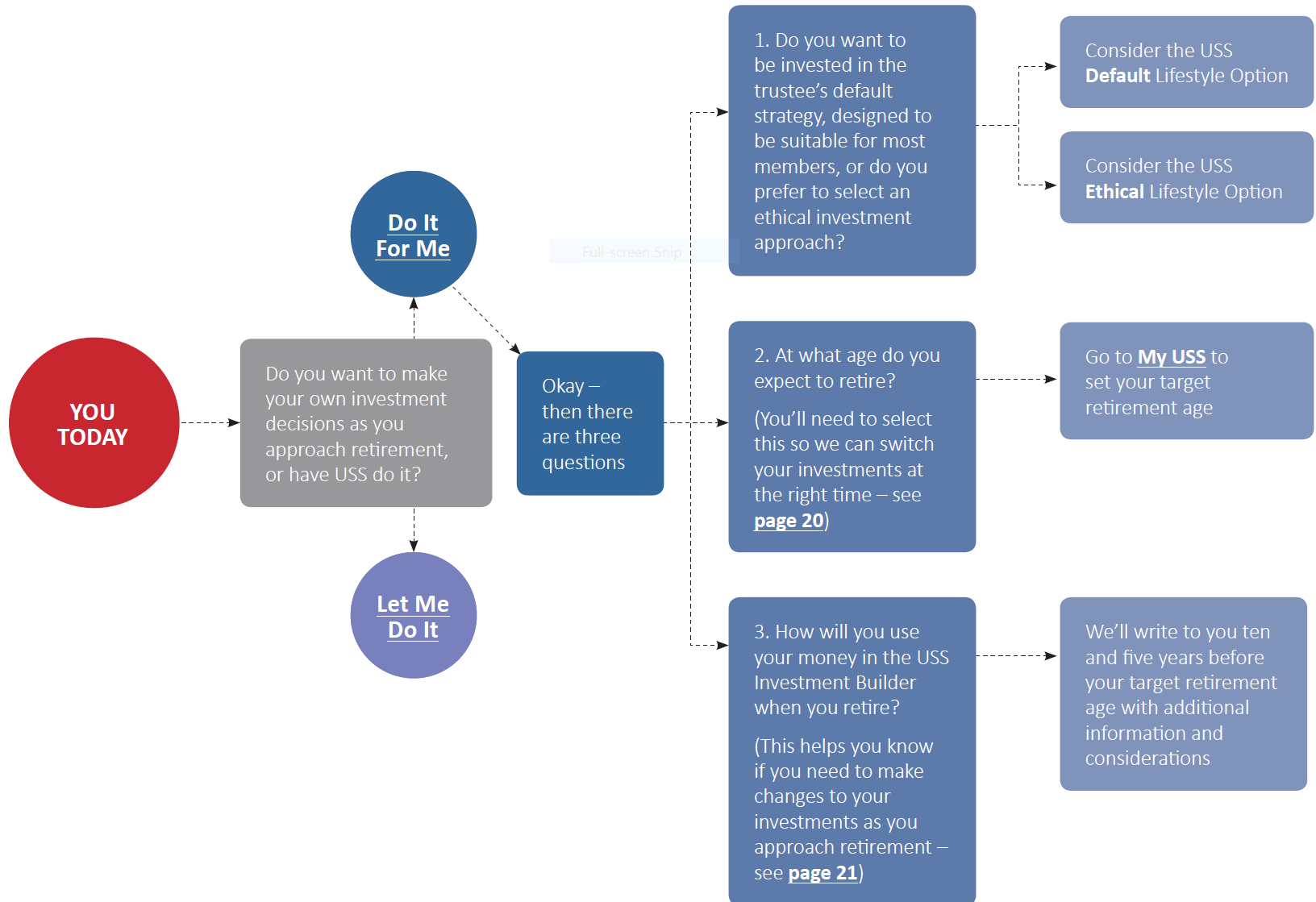- Mr Bean must now choose how to invest his contributions.

- He had no financial education at school or elsewhere.

- He has a bank account, a few credit cards,

a mortgage and car loan.

- He has never invested in the stockmarket or bonds before.

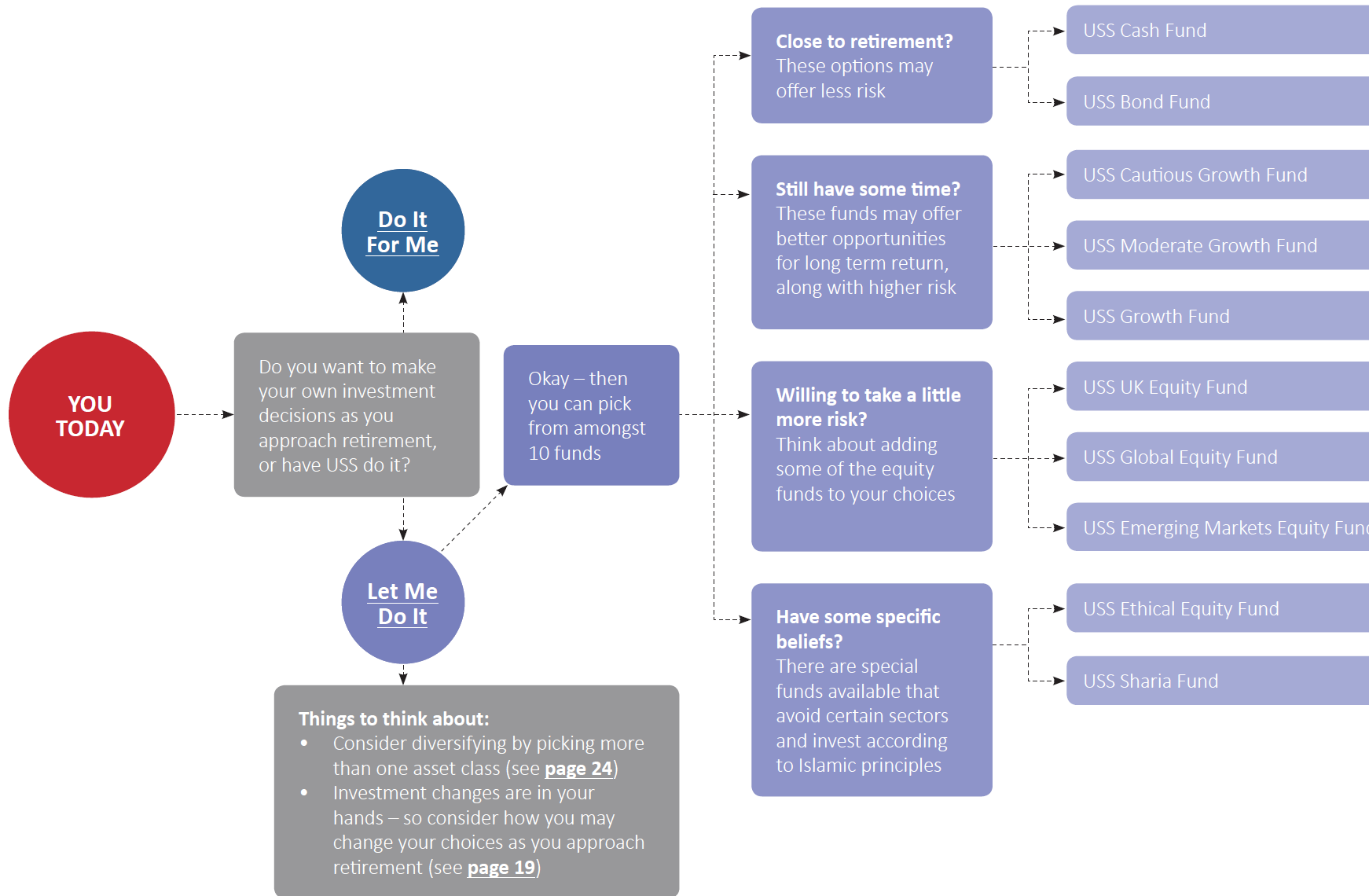- Suppose the DC plan offers 12 funds for him to choose from.

YOU TODAY

Do you want to make your own investment decisions as you approach retirement, or have USS do it?

Do It For Me

Let Me Do It

Okay — then there are three questions

1. Do you want to be invested in the trustee's default strategy, designed to be suitable for most members, or do you prefer to select an ethical investment approach?

Consider the USS **Default** Lifestyle Option

Consider the USS **Ethical** Lifestyle Option

2. At what age do you expect to retire?

(You'll need to select this so we can switch your investments at the right time – see **page 20**)

Go to **My USS** to set your target retirement age

3. How will you use your money in the USS Investment Builder when you retire?

(This helps you know if you need to make changes to your investments as you approach retirement – see **page 21**)

We'll write to you ten and five years before your target retirement age with additional information and considerations

Lifestyle/Target date funds (Vanguard 2017)

- 4.4 million Vanguard DC participants in US.

- Average number of funds offered is 18.

- 92% of plans offer lifestyle funds.

- For plans with automatic enrolment, 97% of them have the lifestyle fund as the default fund.

- 72% of Vanguard DC participants are in lifestyle funds.

- 46% of Vanguard DC participants are wholly invested in lifestyle funds.

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YOU TODAY

Do you want to make your own investment decisions as you approach retirement, or have USS do it?

Do It For Me

Let Me Do It

Okay – then you can pick from amongst 10 funds

Things to think about:
- Consider diversifying by picking more than one asset class (see **page 24**)
- Investment changes are in your hands – so consider how you may change your choices as you approach retirement (see **page 19**)

Close to retirement?
These options may offer less risk

- USS Cash Fund
- USS Bond Fund

Still have some time?
These funds may offer better opportunities for long term return, along with higher risk

- USS Cautious Growth Fund
- USS Moderate Growth Fund
- USS Growth Fund

Willing to take a little more risk?
Think about adding some of the equity funds to your choices

- USS UK Equity Fund
- USS Global Equity Fund
- USS Emerging Markets Equity Fund

Have some specific beliefs?
There are special funds available that avoid certain sectors and invest according to Islamic principles

- USS Ethical Equity Fund
- USS Sharia Fund

Contributions rates, UK

In UK, in year 2015,

- – In private sector, 3.9 million active members in DC with average total contribution rate 4%.

- – In DB plans, average total contribution rate 21% (but will include deficit-corrections).

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Mr Fawlty

- Unlike Mr Bond and Mr Bean, he is self-employed.

- Like them, he has no financial education although he reads a newspaper every day.

- Goes to an insurance company for a pension policy.

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Mr Fawlty

- Similar choice 'paths' to Mr Bean,

- But with hundreds of funds from which to choose.

Attitude to (investment) risk

Robert C. Merton (2014) The Crisis in Retirement Planning. HBR.

- Primary goal of individuals: Will I have sufficient income in retirement to live comfortably?

  - Risk should be measured as failure to meet the income goal,

  - Inflation-indexed annuities should be the risk-free asset.

- In the DC/personal pension world, risk is measured in terms of investment nominal value and volatility.

  - E.g. how much investment in bonds vs equity.

  - But how does that relate to the income goals of the individual?

Summary

- In a DC 'default' fund world.

- Is the default good enough? Could it be better?

How can we help?

- Can we create products/funds that give the benefits of DB plans?

- Need to work with industry, e.g. insurance companies, to specify problems so solutions are relevant.

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The '**Minimising Longevity and Investment Risk while Optimising Future Pension Plans**' research programme is being funded by the ARC.

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