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Welcome

INDEPENDENT

EVIDENCE BASED

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NON LOBBYING

NEUTRAL

Quantifying multi-employer and single employer CDC outcomes

www.pensionspolicyinstitute.org.uk

@PPI_Research

#PPILaunch

Chair's Welcome

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David Fairs

Partner (LCP)

and PPI Governor

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An INDEPENDENT Briefing Note by the Pensions Policy Institute

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This project is a collaboration between The Pensions Policy Institute and King's College Mathematics Department and is kindly funded by the Nuffield Foundation.

KING'S College LONDON

Nuffield Foundation

Event overview

The event today is the official launch of the report **Quantifying multi-employer and single employer CDC outcomes.**

This report is based around new modelling that explores how different scenarios may influence scheme stability and the value of member benefits the scheme can afford.

An INDEPENDENT Briefing Note by the Pensions Policy Institute

Pensions Policy Institute PPI

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King's College London

Nuffield Foundation

Key Findings

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John Upton

Policy Analyst

Pensions Policy Institute

What does this research explore?

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Agenda

- What is this research building on?
- How do single and multi employer CDC compare to annuities and each other?
- Is there potential for cross subsidy in multi employer CDC?
- Summary

Past research

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Past research

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Past research

- Only single employer CDC exists in the UK so far
- There is appetite for other forms of CDC, such as multi employer
- Many look to the Royal Mail's future performance for evidence

CDC Performance

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Agenda

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Single vs multi employer CDC

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Differences

- “DB lite”: offering a targeted benefit to one workforce
- “DC plus”: offering fixed contributions to multiple employers
- These schemes differ in rates of one-off cuts and bonuses
- These schemes differ in the uprating of benefits

Single and multi employer CDC vs annuity

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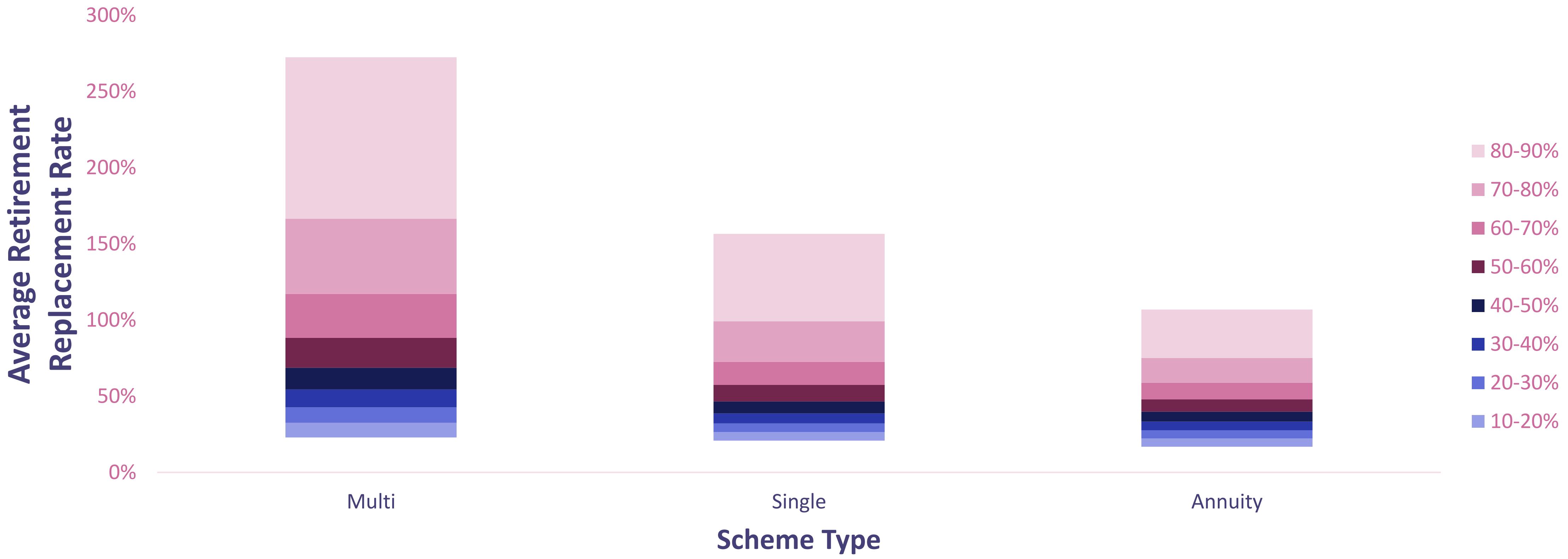
Percentiles of performance



Multi employer CDC

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Agenda

- What is this research building on?
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- Summary

Multi employer CDC

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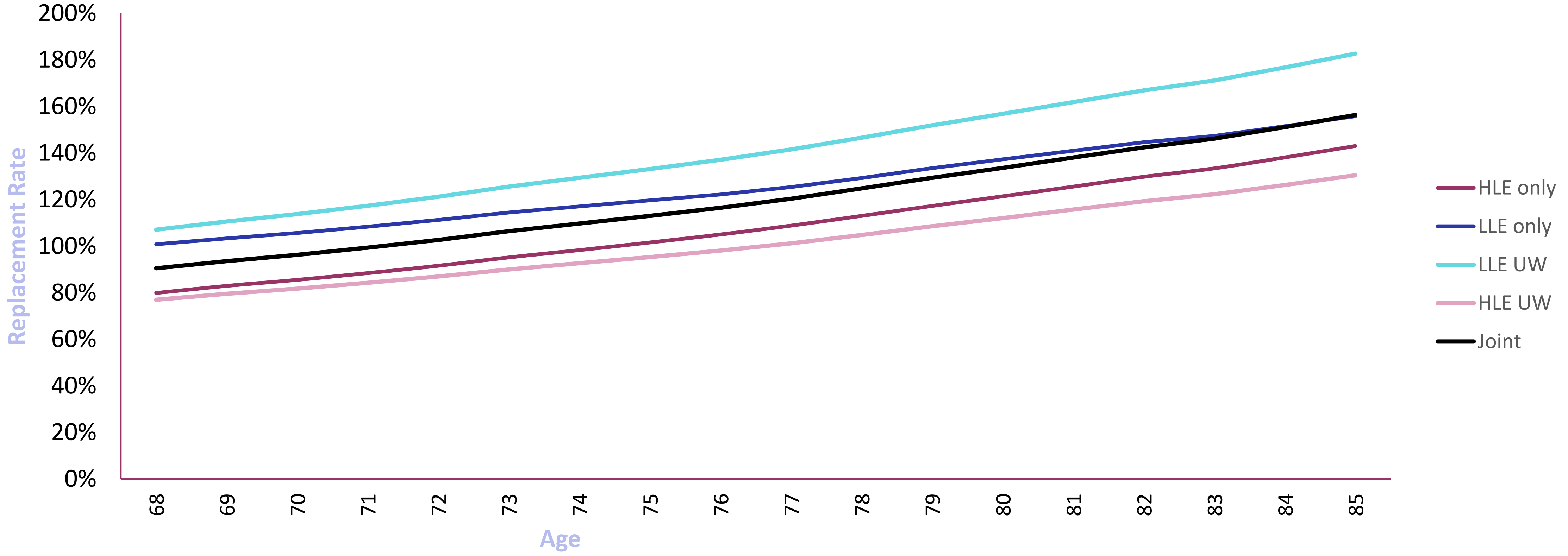
Cross subsidy

- Cross subsidy can happen when there are different subgroups with different life expectancies
- One way to mitigate this is through underwriting
- Another way to mitigate it is through sectionalisation

Multi employer CDC

Cross subsidy



Conclusion

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Summary

- CDC broadly outperforms equivalent DC schemes, albeit with a sensitivity to economic conditions that makes this hard to quantify.
- Single employer CDC and multi employer CDC have key design differences with implications for performance.
- Multi employer CDC has a potential for cross subsidy that may be mitigated with underwriting or sectionalization.

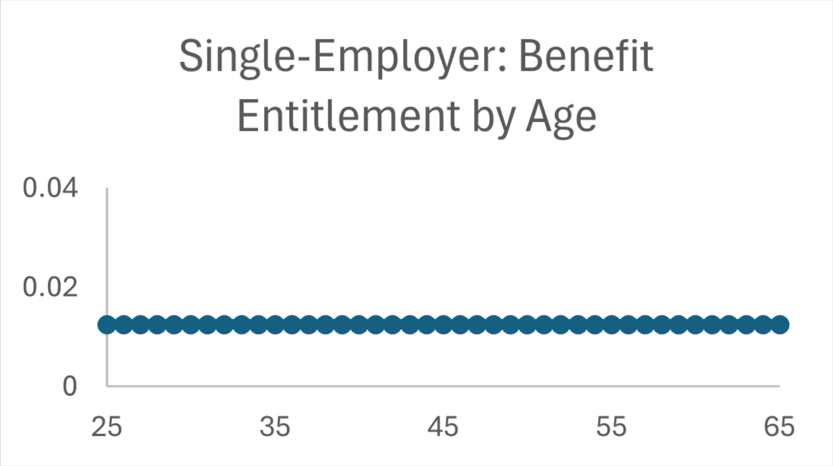
Intergenerational Cross Subsidies in CDC

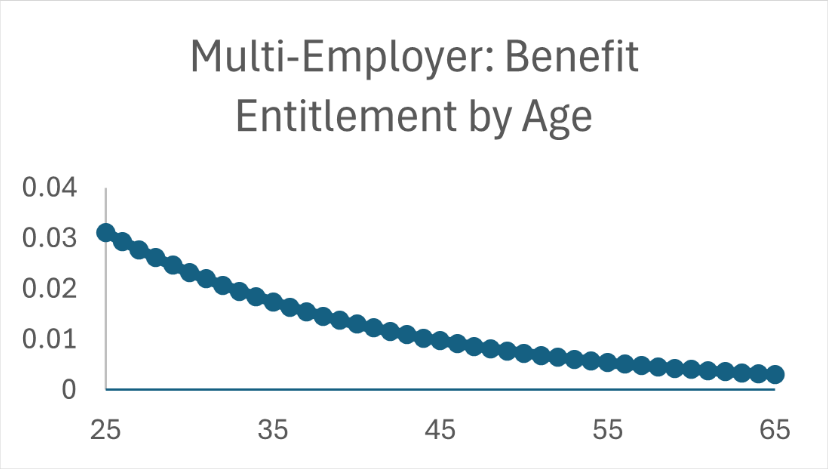
John Armstrong

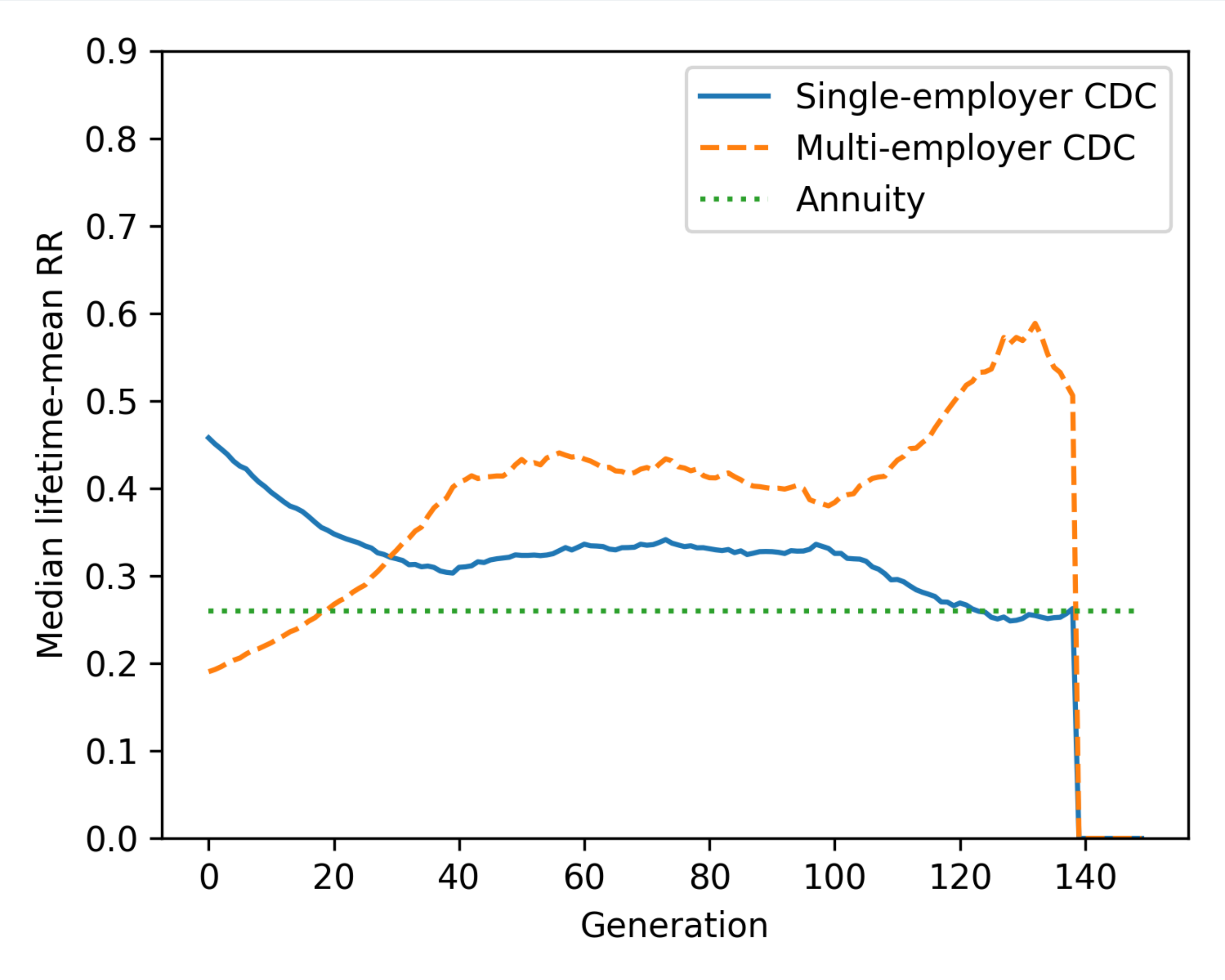
November 19, 2024

Median lifetime-mean replacement ratio by Generation

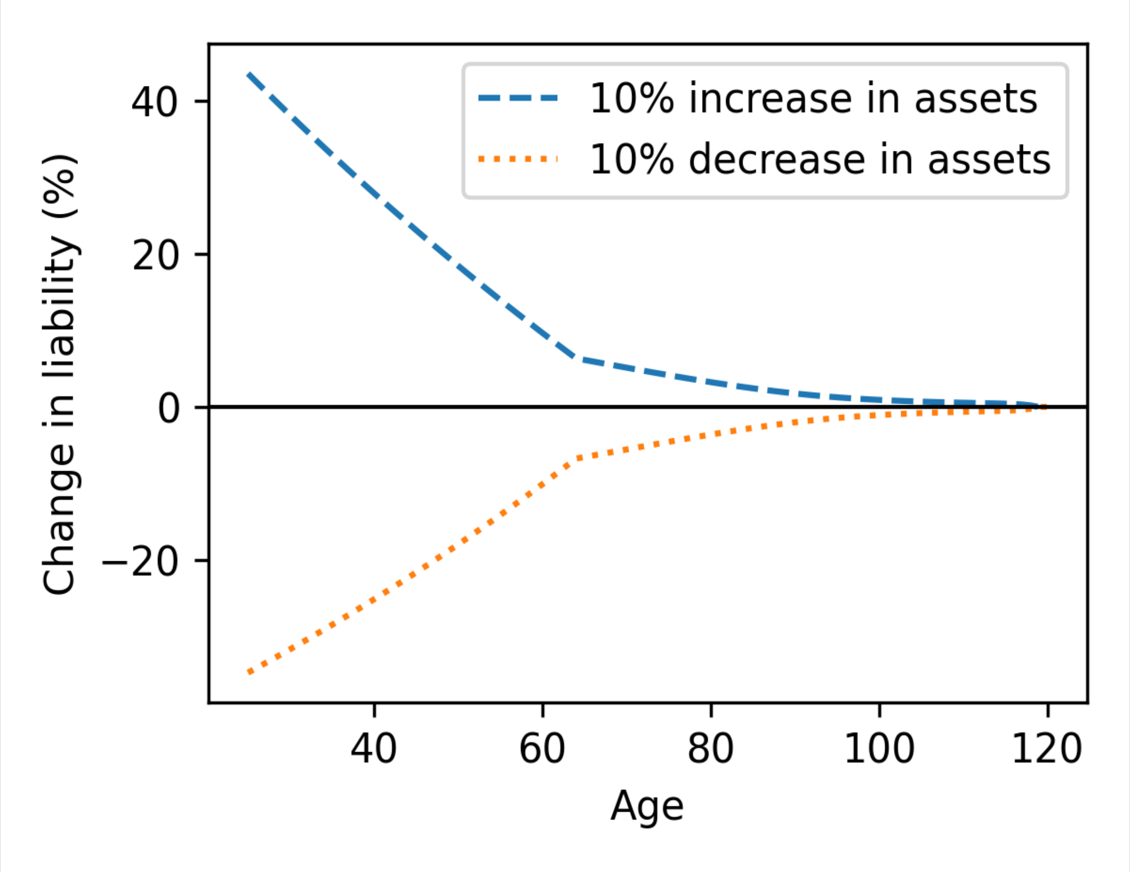
Single-Employer CDC, Multi-Employer CDC, Annuity







Sensitivity to a 10% change in asset values



Financial Derivative

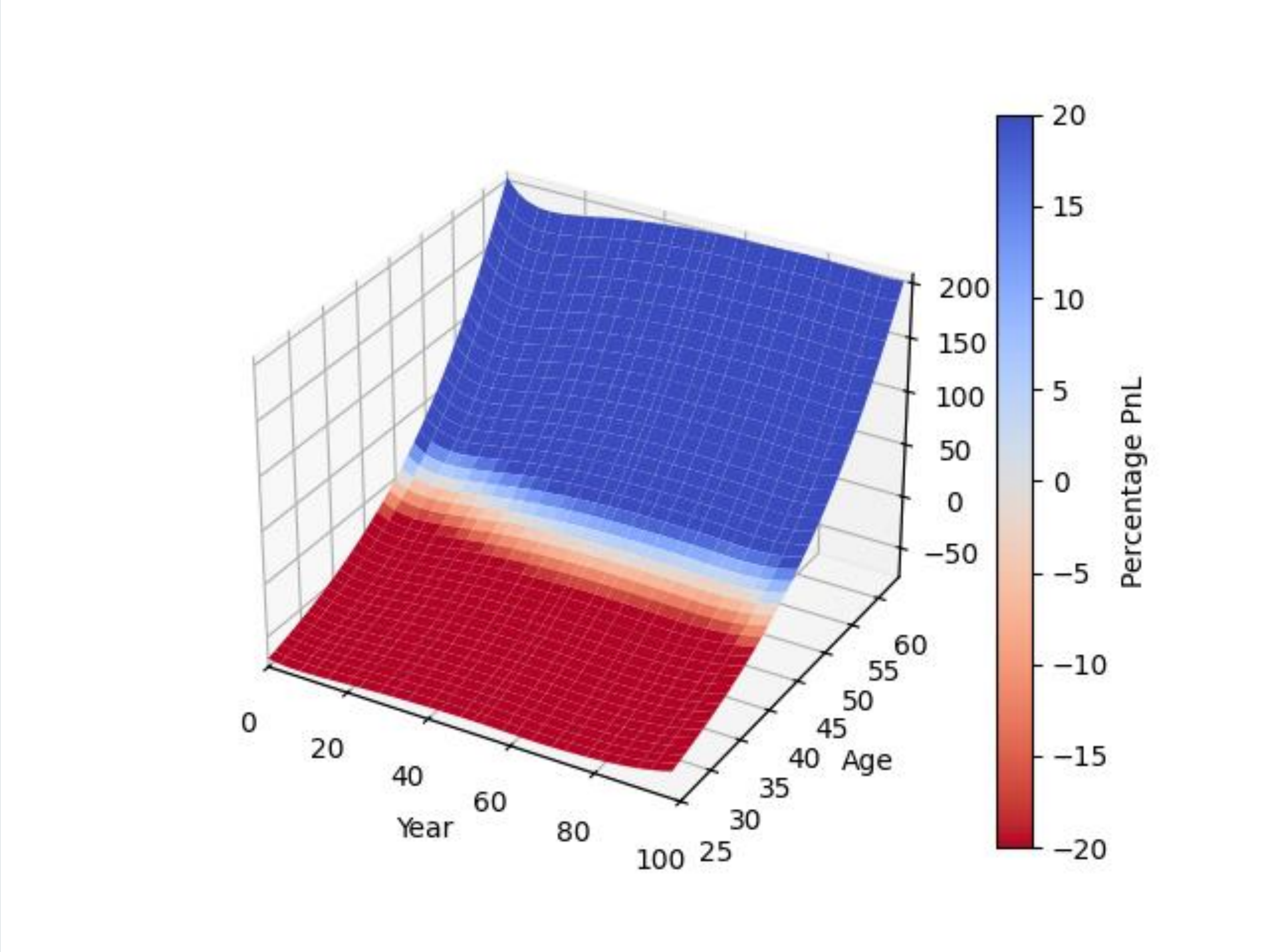
Any contract which gives a set of cashflows which can be calculated from the behaviour of underlying assets.

Risk-neutral Pricing

A mathematically rigorous way to compute the price of derivatives that fully takes account of risk

Single-employer CDC

Expected instantaneous profit by age and year

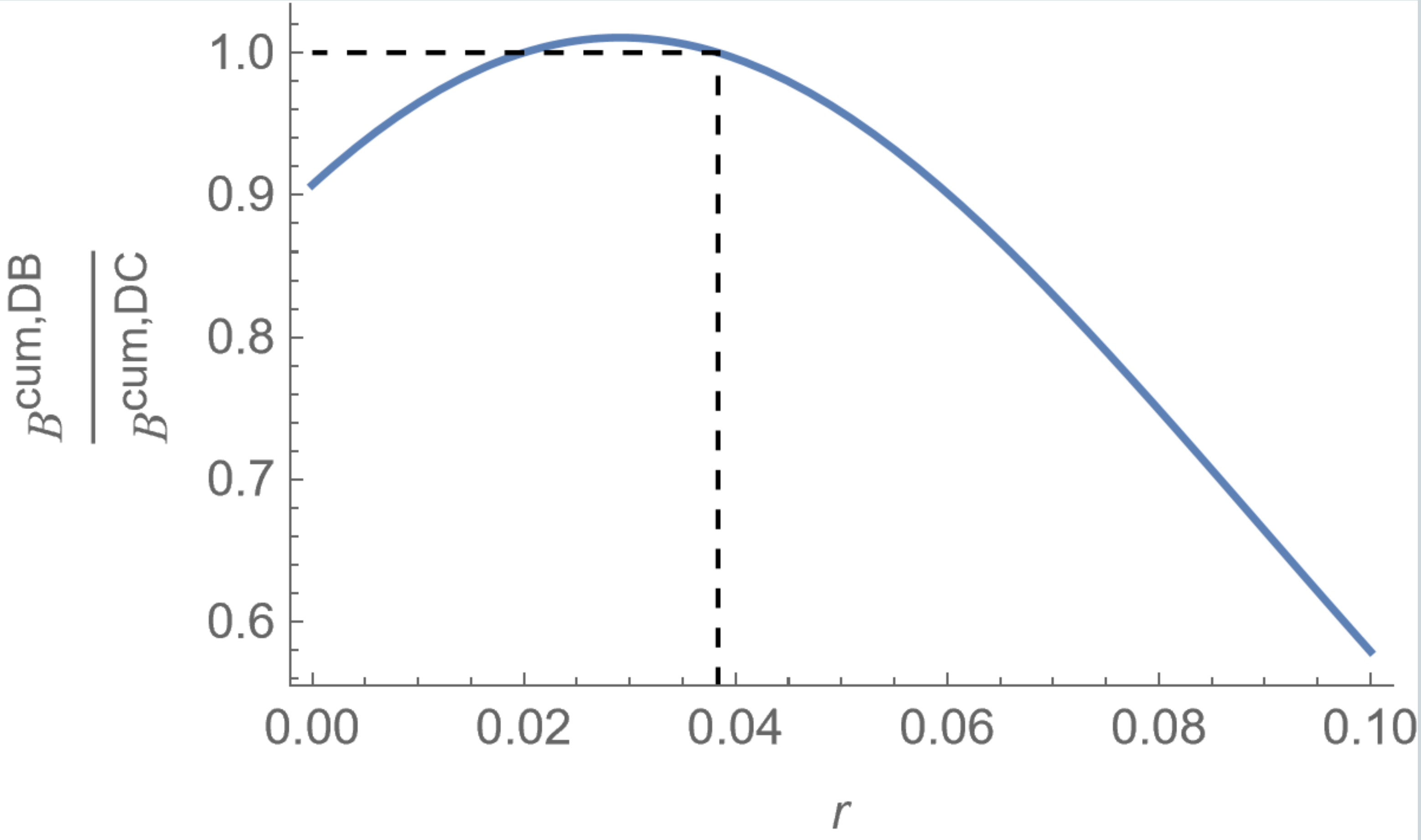


Benefit entitlements for the oldest generation are worth
10 times
that of the youngest generation

This compares to
2.5 times
for a DB pension

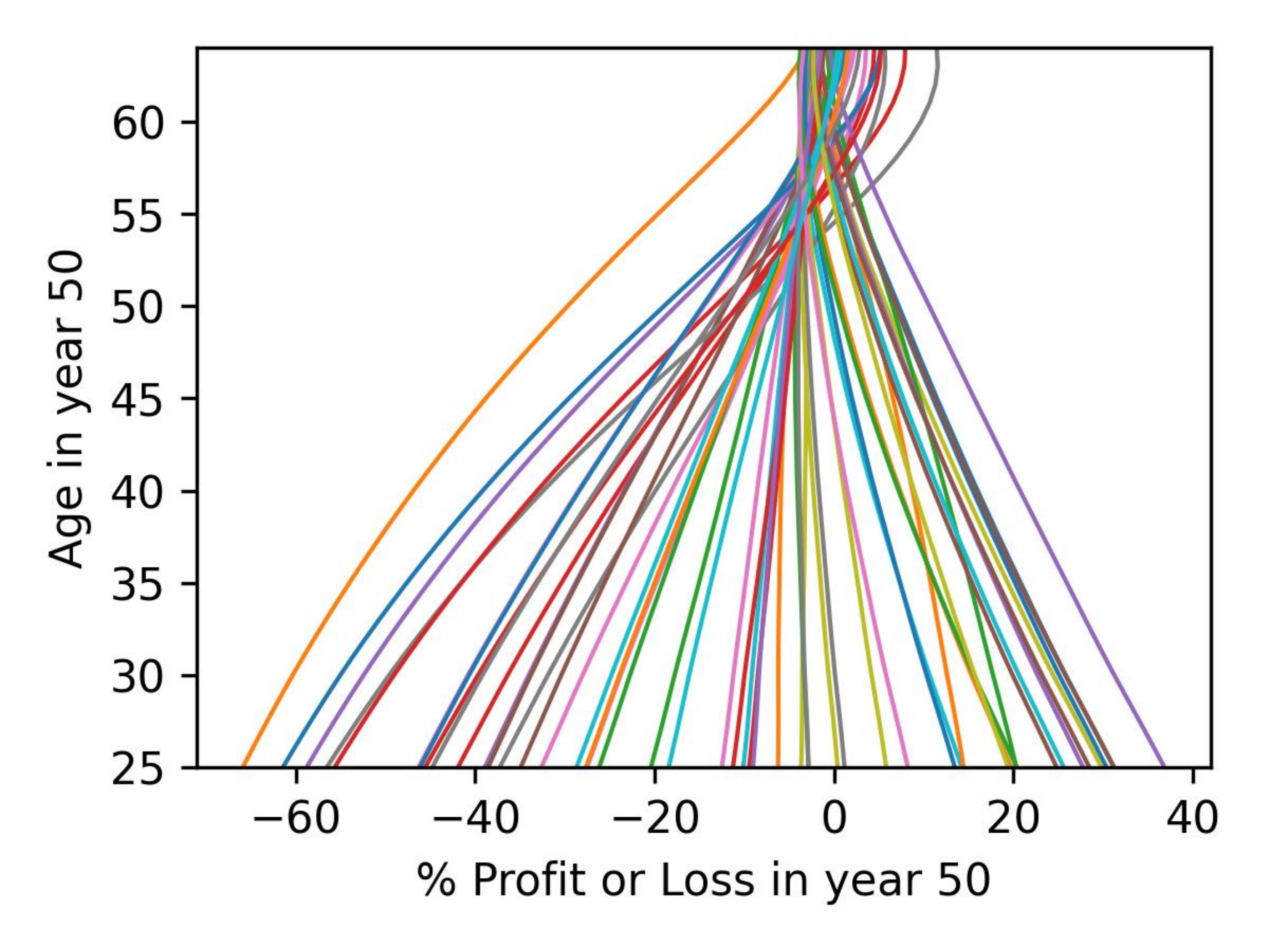
Interest rates and DB pensions

The ratio of a DB pension to DC + annuity pension in a risk-free model



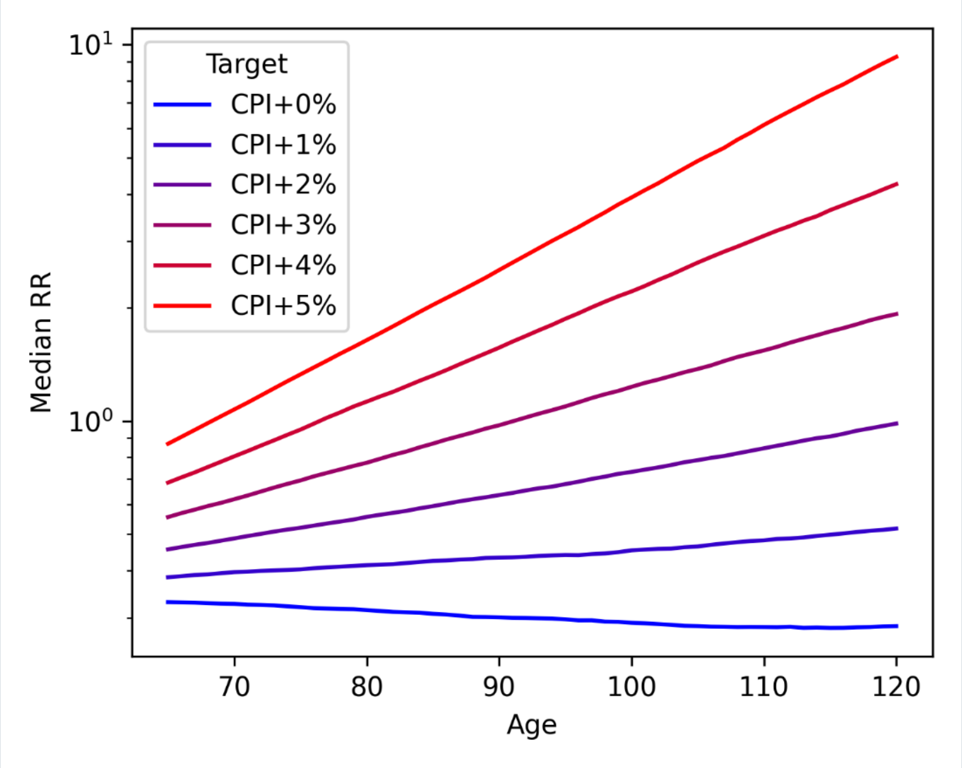
Instantaneous profit and loss by age in year 50

50 random scenarios

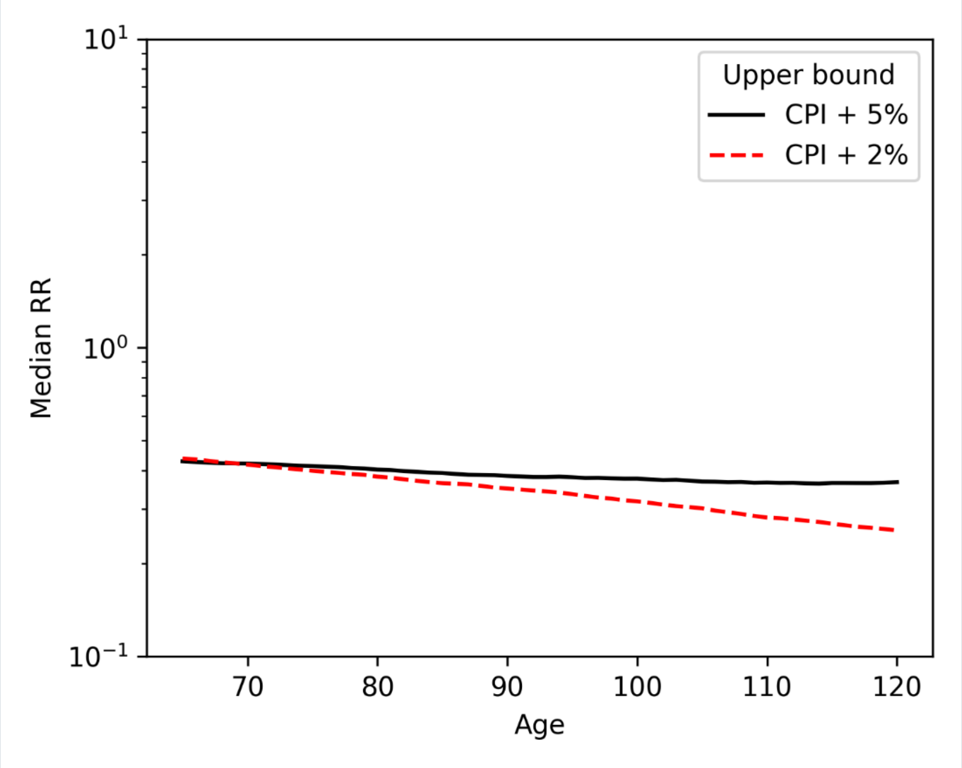


Pension growth in retirement
Median replacement ratio against age

Changing the target level in a single-employer scheme



Changing the upper bound on indexation in a muti-employer scheme



Summary

- Single-employer CDC has high levels of intergenerational cross-subsidy
- Intergenerational cross subsidies are much lower in multi-employer CDC
- This explains why multi-employer CDC outperforms single-employer CDC
- There is one less lever in multi-employer CDC, making it hard to control pension increases in retirement