



Institute  
and Faculty  
of Actuaries

# Developing Better Retirement Products in the UK

**Danni Brotherston FIA CERA**

**Clarence Er FIA**

**Esther Hawley FIA**

Modelling Innovative Pre and Post Retirement Products Working Party

# Agenda

- 01** Introduction to the Working Party

---

- 02** Background on the retirement market in the UK

---

- 03** Existing and potential products for servicing consumer needs

---

- 04** Our proposed framework for measuring success

---

- 05** Conclusion and next steps

---

- 06** Questions / comments





Institute  
and Faculty  
of Actuaries

# Introduction to the working party

# Working Party Objectives

- 1) a selection of potential retirement products and/or investment techniques that could help improve the options available to consumers on retirement
- 2) a framework for assessing how successful the different approaches are when measured against consumer needs and wants
- 3) modelling to analyse the success of each suggested approach against the outlined framework

**Paper 1  
(Q1 2020)**

**Paper 2  
(H2 2020)**



Institute  
and Faculty  
of Actuaries



Institute  
and Faculty  
of Actuaries

# Background on the retirement market in the UK

# Background



Pension reforms: Two thirds of over-55s still confused, says Prudential

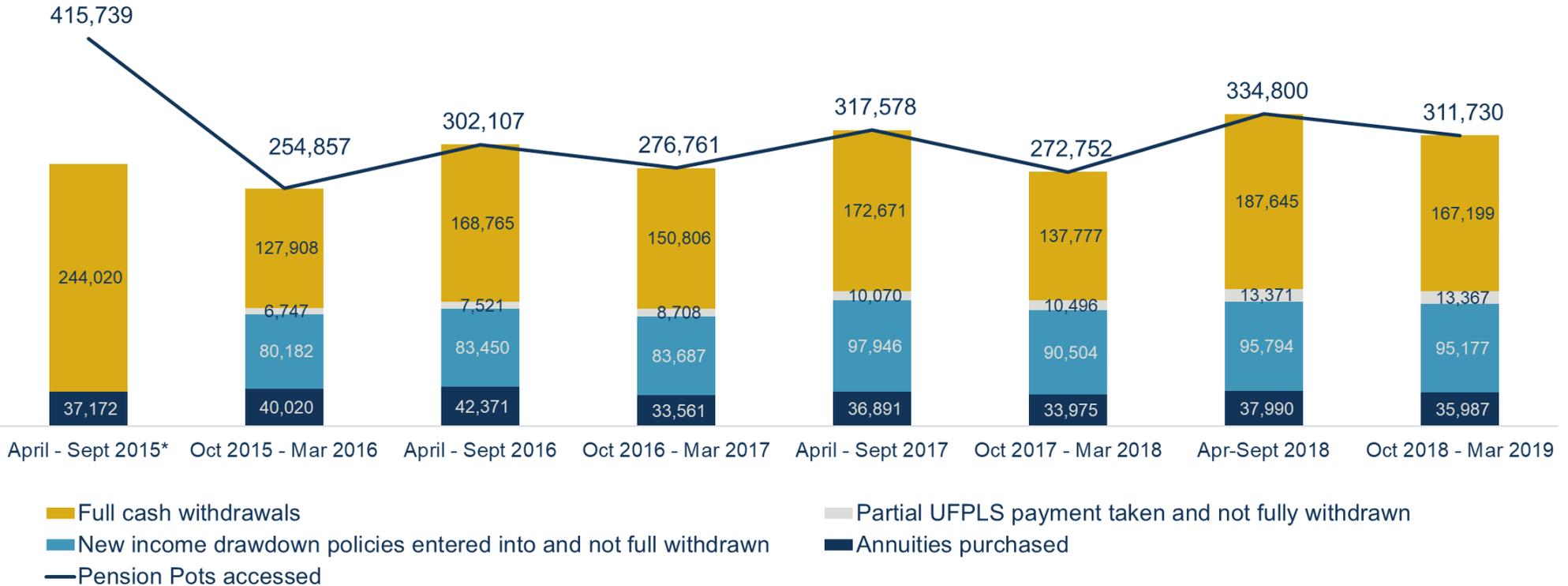
**Budget 2014: pensions shakeup could kill off annuity market, say analysts**



Institute  
and Faculty  
of Actuaries

# Background

Number of pension pots accessed by different methods 2015 to 2019



Source: Barnett Waddingham; compiled from data published by the Financial Conduct Authority (FCA)

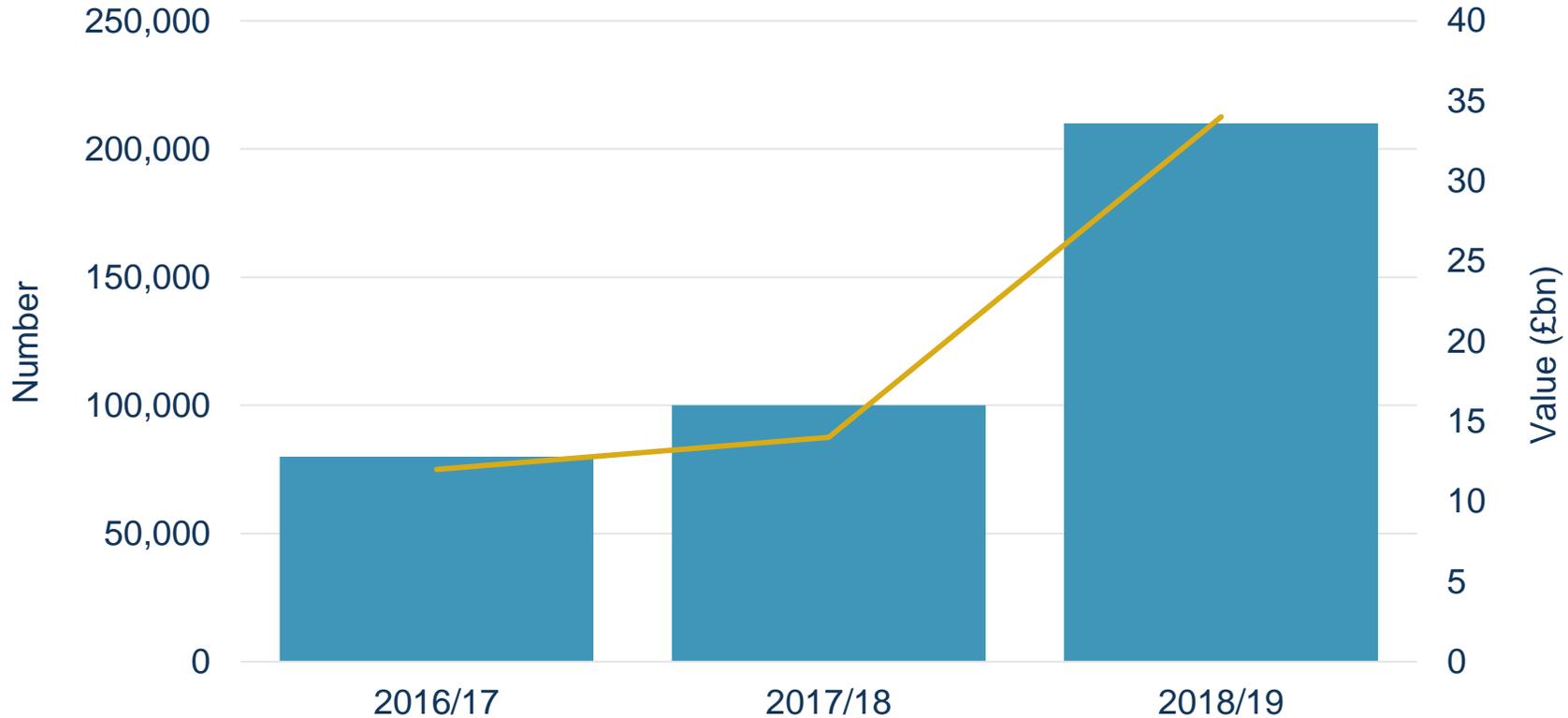
\* Figures for drawdown sales and UFPLS were not collected in the same format between July and September 2015 and were therefore omitted by the FCA.



Institute and Faculty of Actuaries

# Background

## Number and Value of DB Transfers



Source: The Pensions Regulator (via a Freedom of Information Request from Royal London)



Institute  
and Faculty  
of Actuaries

# Background

Risks to consider in retirement:

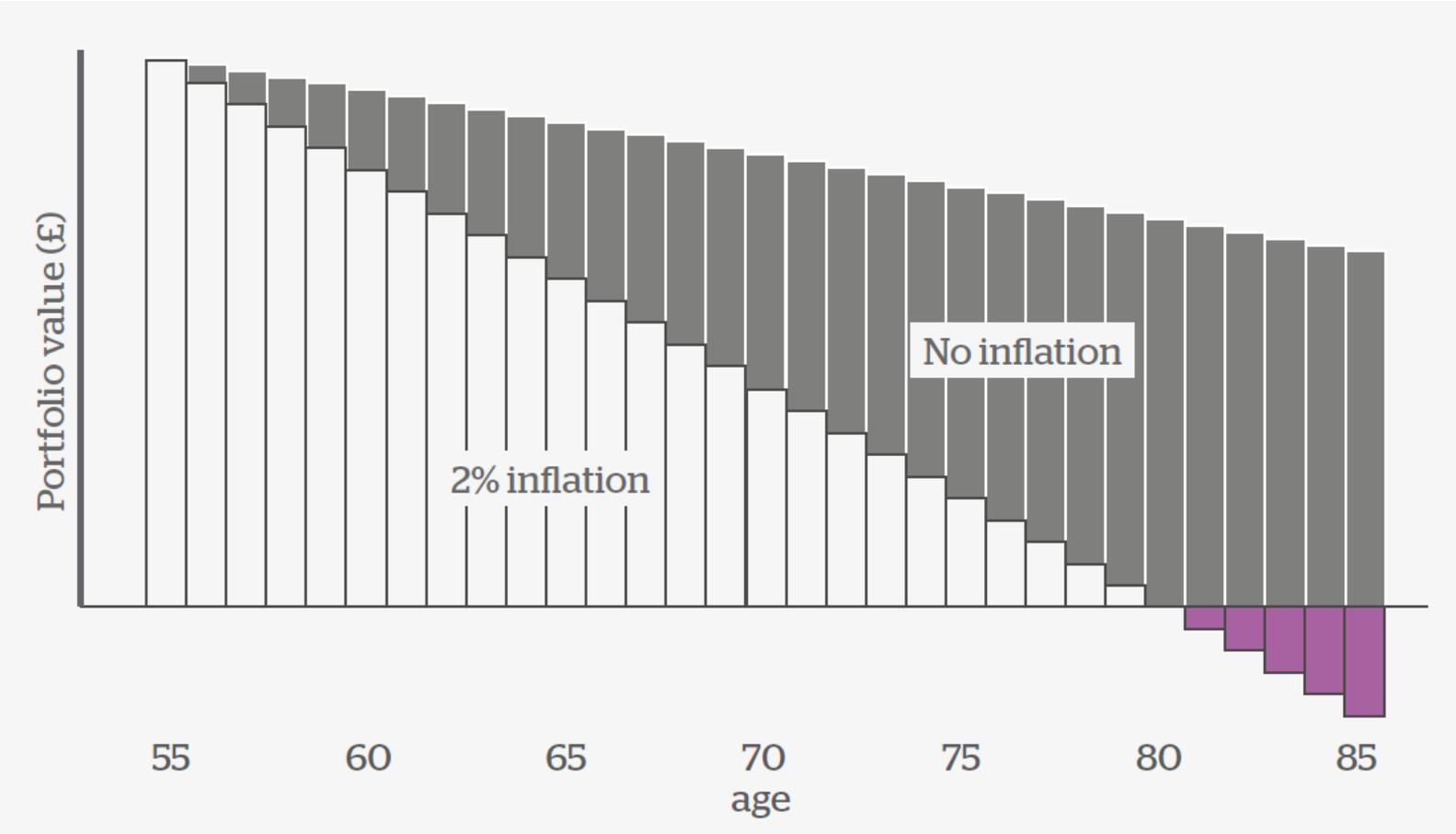
Longevity

Inflation



Institute  
and Faculty  
of Actuaries

# Background



Source: Brooks Macdonald, March 2019



# Background

Risks to consider in retirement:

Longevity

Inflation

Market

Interest Rate

Investor  
Behaviour

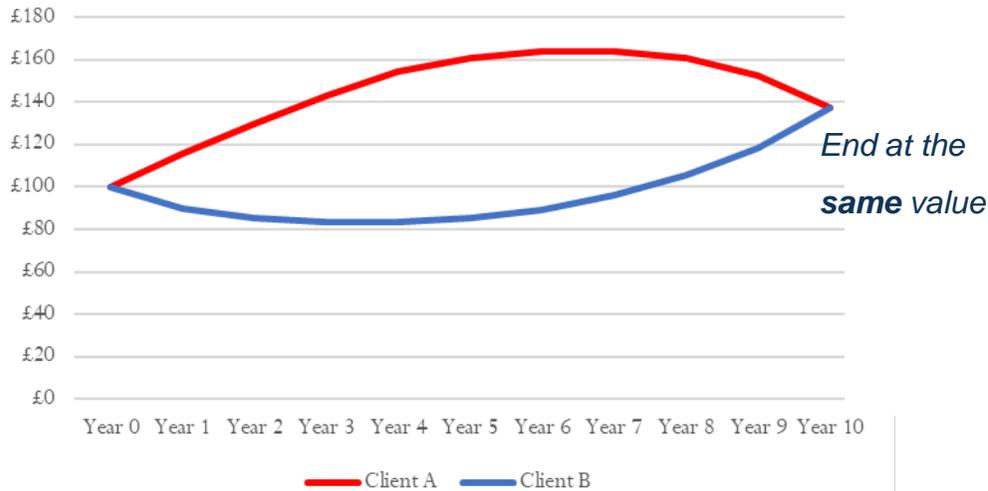
Sequencing Risk



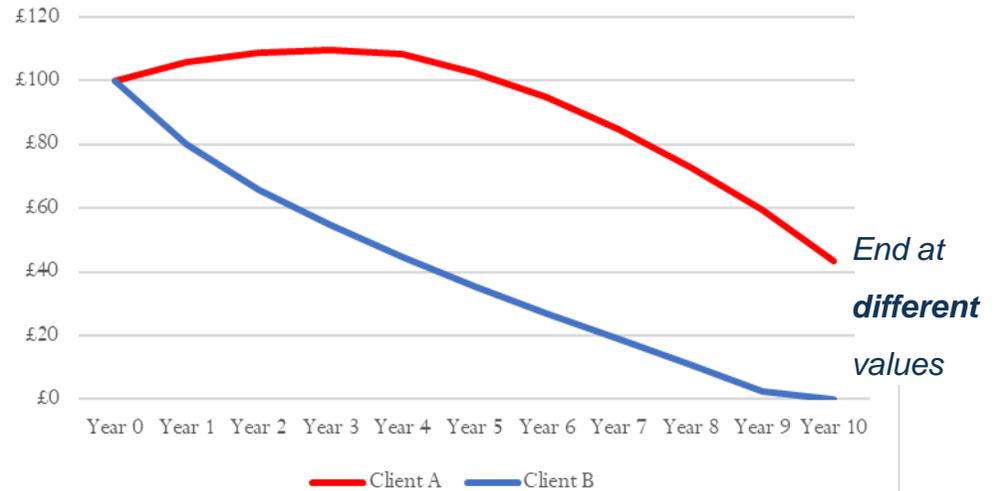
# Background

	1	2	3	4	5	6	7	8	9	10	Return
Client A	16%	12%	10%	8%	4%	2%	0%	-2%	-5%	-10%	+37%
Client B	-10%	-5%	-2%	0%	2%	4%	8%	10%	12%	16%	+37%

Whilst **Saving** for Retirement



Whilst **Spending** in Retirement



Outcome depends on return



Outcome depends on sequence of return



Institute and Faculty of Actuaries



Institute  
and Faculty  
of Actuaries

# Existing and potential products for servicing consumer needs

# Example of products considered

## Annuities

Immediate annuity

Deferred annuity

Variable annuity

## Other products

Drawdown

Equity release mortgages

Tontines

With-profits

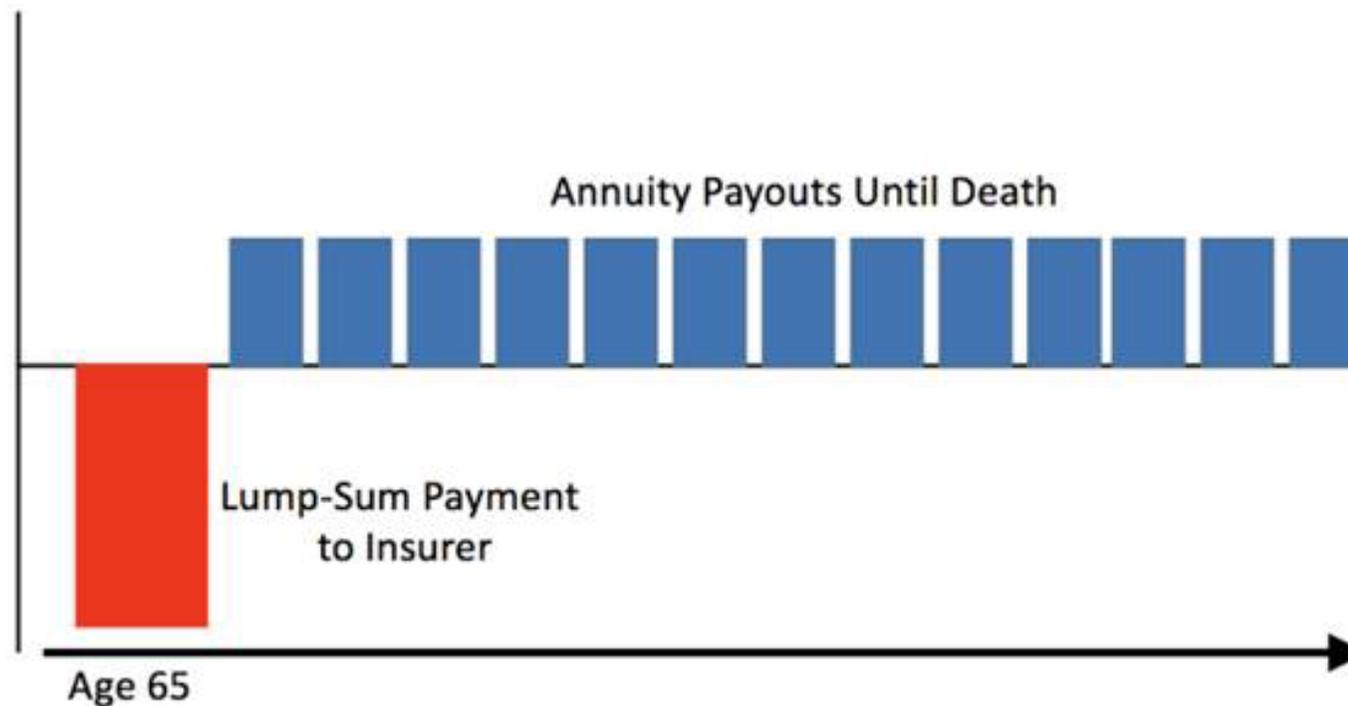


# Products which merit further exploration



# Deferred annuity

## Traditional Immediate Annuity



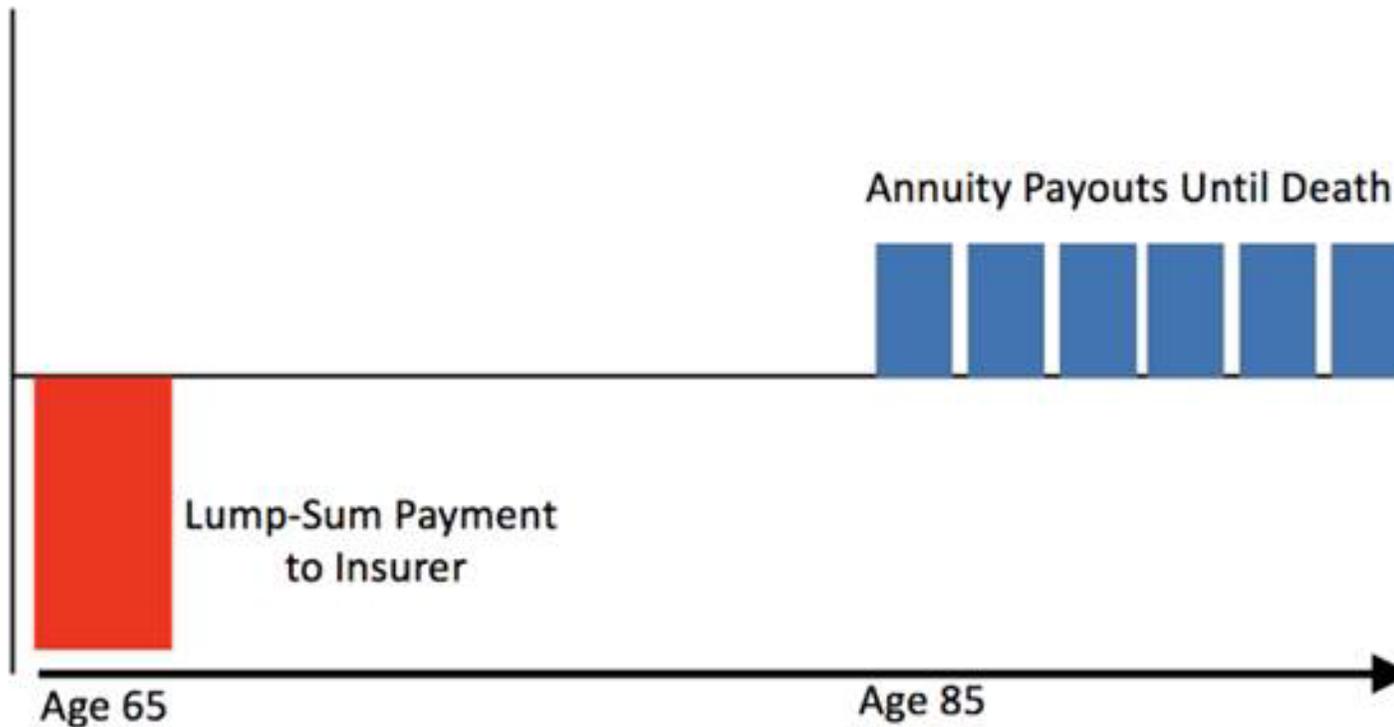
Source: <https://seekingalpha.com/article/4122646-income-annuities-immediate-deferred>



Institute  
and Faculty  
of Actuaries

# Deferred annuity

## Deferred Annuity



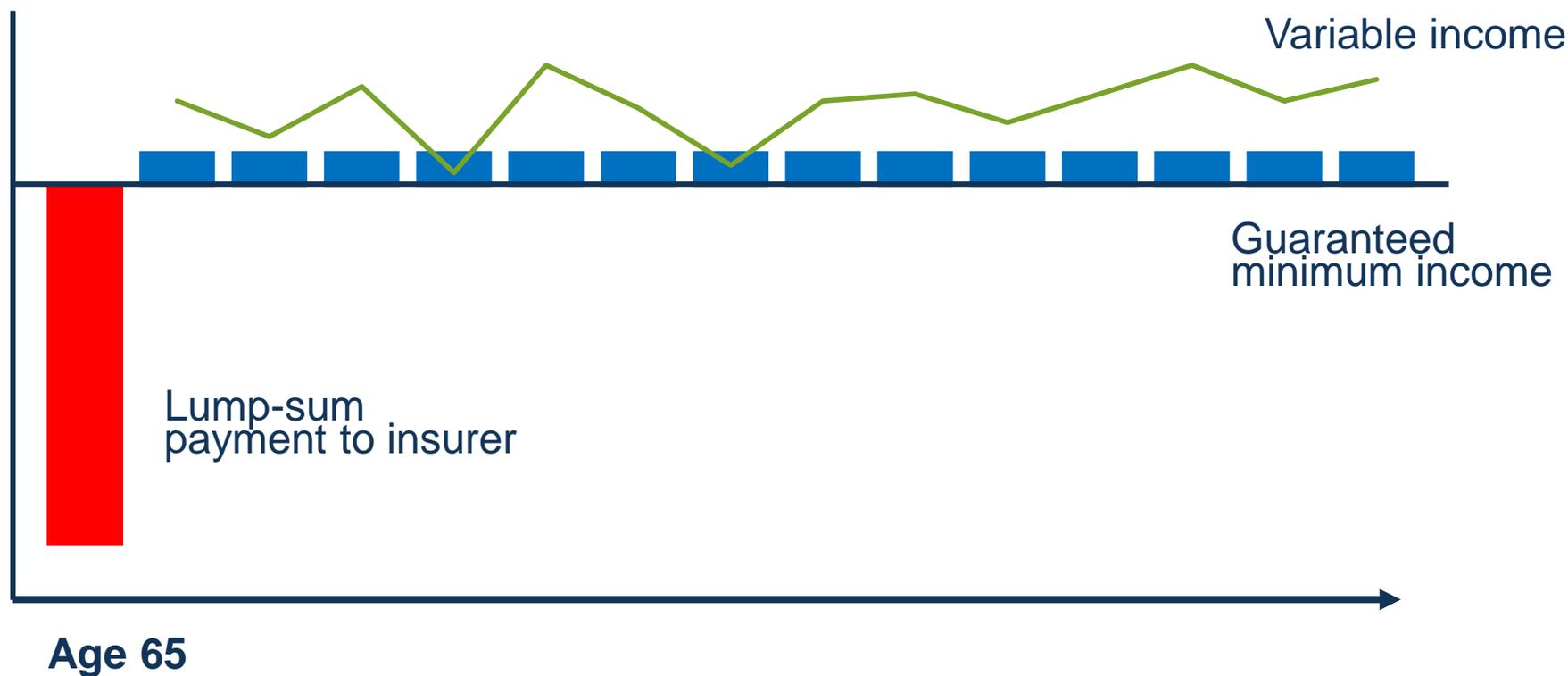
Source: <https://seekingalpha.com/article/4122646-income-annuities-immediate-deferred>



Institute  
and Faculty  
of Actuaries

# Variable annuity

Seen as a crossover between annuities and drawdown



Institute  
and Faculty  
of Actuaries

# Equity release mortgages



**Provides lump sum**



**Unlocks wealth in locked-up in property**



**Interest roll up**



**No-negative equity guarantee**



**Allows individuals to stay in property**



**Product innovation**



Institute  
and Faculty  
of Actuaries

# Equity release mortgages (continued)

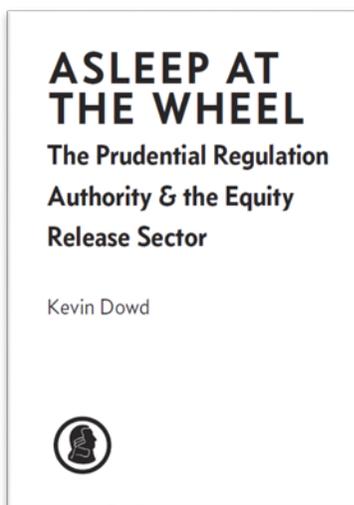
## Market opportunities

- *Rising demand for old age care*
- *Lack of pension savings*
- *Rapidly growing market (£3.94bn lending in 2018<sup>1</sup>)*

## Product risk

- *Borrower has no incentive to maintain the property*
- *Behavioural/perception aspects (e.g. viewed as failure to save for retirement, reduced inheritance)*

## Regulatory/Public scrutiny



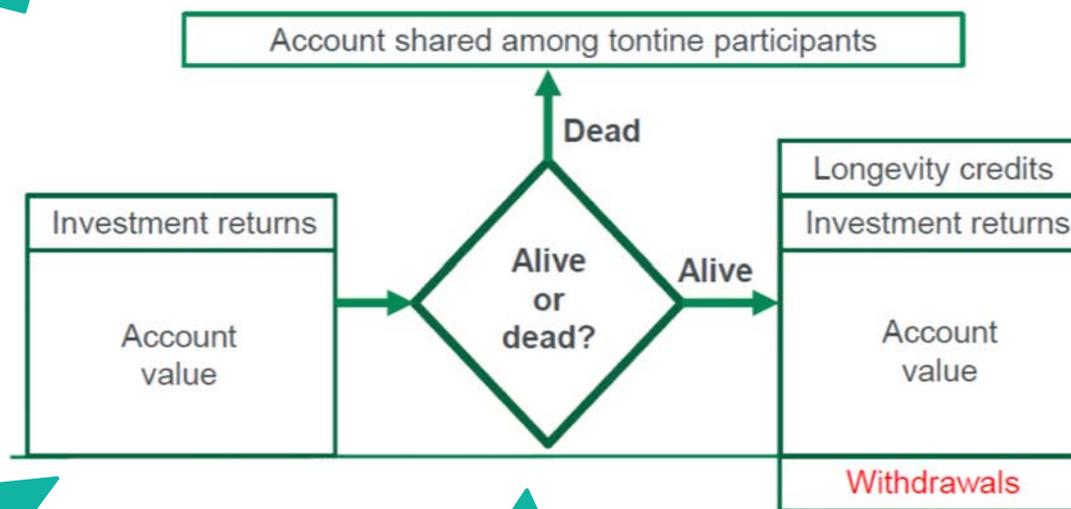
Institute  
and Faculty  
of Actuaries

# Tontines

Pooling of risks

Actuarially fair / equitable

Income is not guaranteed



Longevity risks remains with individual

Negative perceptions

Potentially complex



Institute and Faculty of Actuaries



Institute  
and Faculty  
of Actuaries

# Our proposed framework for measuring success

# Some consumer needs

## ➤ Management of longevity risk

- Low probability of running out of funds

## ➤ Reliability of income

- Sufficient income to live on from year to year
- e.g. inflation protection, not too volatile

## ➤ Flexibility

- Ability to change solution over time

## ➤ Possibility of leaving a bequest

## ➤ Perception of good value for money

## ➤ Simplicity

- Simple for consumers to understand

## ➤ Low maintenance for the consumer

- Requires minimal input from consumer on ongoing basis



# Metrics for measuring success

## Quantitative measures

Stochastic simulations for each combination of products and assess:

- Probability of nominal income  $>x\%$  of initial income
- Probability of real income  $>y\%$  of initial income
- Probability of total value  $>z\%$  of starting fund value

## Qualitative measures

- Level of simplicity / ease of understanding
- Any ongoing requirements
- Level of flexibility in early years
- Longevity protection after age 95





Institute  
and Faculty  
of Actuaries

# Conclusions and next steps

# Conclusions

- 1 There are opportunities in the current retirement market
- 2 A combination of products could offer attractive solutions for consumers
- 3 Getting this right will be of great benefit to both consumers and providers



## Next steps

- Publish first paper in Q1 2020 setting out
  - More detailed framework for measuring success
  - The combination of products to perform modelling
- Perform modelling on the selected combinations and share results of analysis in second paper

**Feedback welcomed!**



Institute  
and Faculty  
of Actuaries

# Questions

# Comments

The views expressed in this presentation are those of invited contributors and not necessarily those of the IFoA. The IFoA do not endorse any of the views stated, nor any claims or representations made in this presentation and accept no responsibility or liability to any person for loss or damage suffered as a consequence of their placing reliance upon any view, claim or representation made in this presentation.

The information and expressions of opinion contained in this publication are not intended to be a comprehensive study, nor to provide actuarial advice or advice of any nature and should not be treated as a substitute for specific advice concerning individual situations. On no account may any part of this presentation be reproduced without the written permission of the IFoA.



Institute  
and Faculty  
of Actuaries