ESRI ECONOMIC & SOCIAL RESEARCH INSTITUTE

The Framing of Options for Retirement: Experimental Tests for Policy

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VENUE
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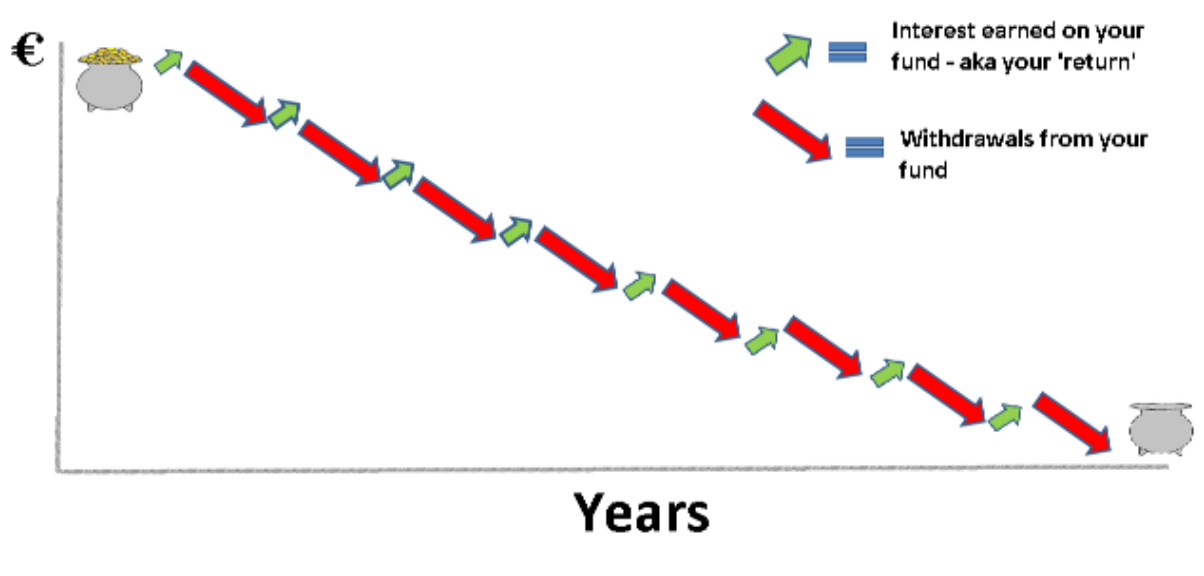


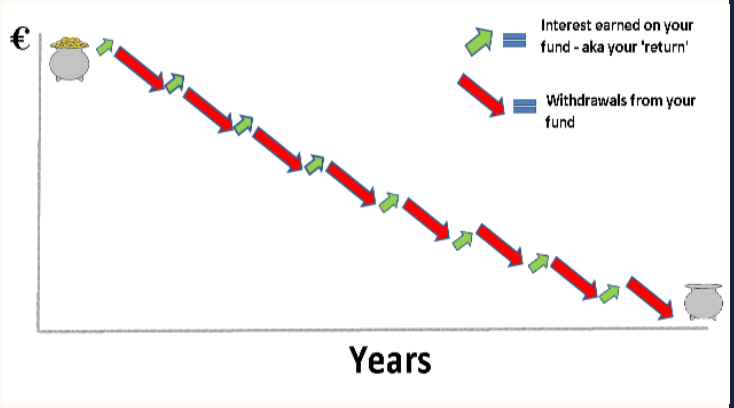
Annuitisation

- There is an “annuities puzzle” (Modigliani, 1986)
  - Annuities look sensible but are unpopular

Relevant previous literature

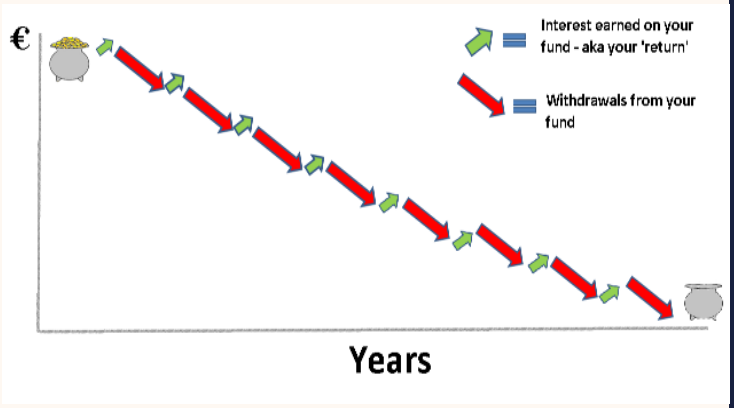
- Framing may matter (Brown et al, 2008)
- Large (>4x) disparities between buying and selling prices (Brown et al., 2017)
- Gap in annuity valuation for buying versus selling linked to cognitive ability (Brown et al, 2017)
- Perhaps one or other conception of a pension act as a reference point, similar to a…
  - …default (Johnson & Goldstein, 2003)
  - …status quo option (Samuelson & Zechhauser, 1988)
  - …or endowment (Knetsch, 1989; Kahneman, Knestch & Thaler, 1990)

Research Question



- Does how people conceive of their pension alter choice of options on retirement?
  - If you think of your pension as a pot of money (as in a DC scheme)…
  - …or as income in retirement (as in a DB scheme)…
  - …does it alter your willingness to annuitise?
- We altered the framing of a pension to test this in two lab experiments

Experiment 1



- **Hypothesis: When a pension is described in terms of a lump sum, participants will demand a higher rate to annuitise.**
- Lab experiment (n=100)
- Hypothetical choice of annuity or lump sum
- Explain workings of an ARF via a calculator and ask again.

Matching task

Please imagine you are 65 and about to retire.

As a result of saving for retirement, you have a lump sum of: **€456,000**

This is yours to save or spend as you please

The pensions company offers you the chance to convert this lump sum into a guaranteed monthly payment FOR LIFE. In other words, they will pay you a fixed amount every month until you die.

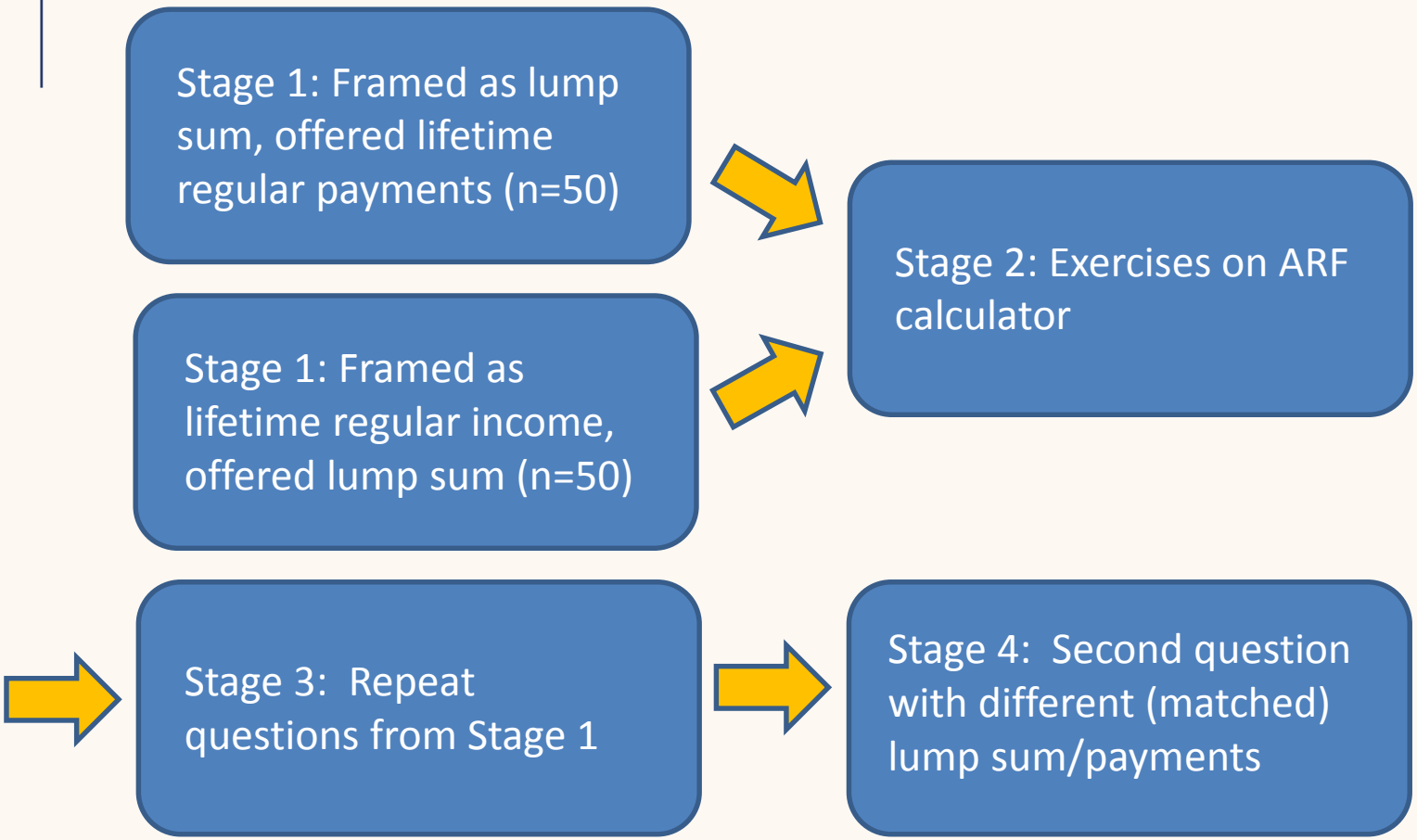
Please type in the MINIMUM guaranteed monthly payment for life you would be willing to accept to convert your lump sum.

Feel free to use the pocket calculator provided in coming up with your answer

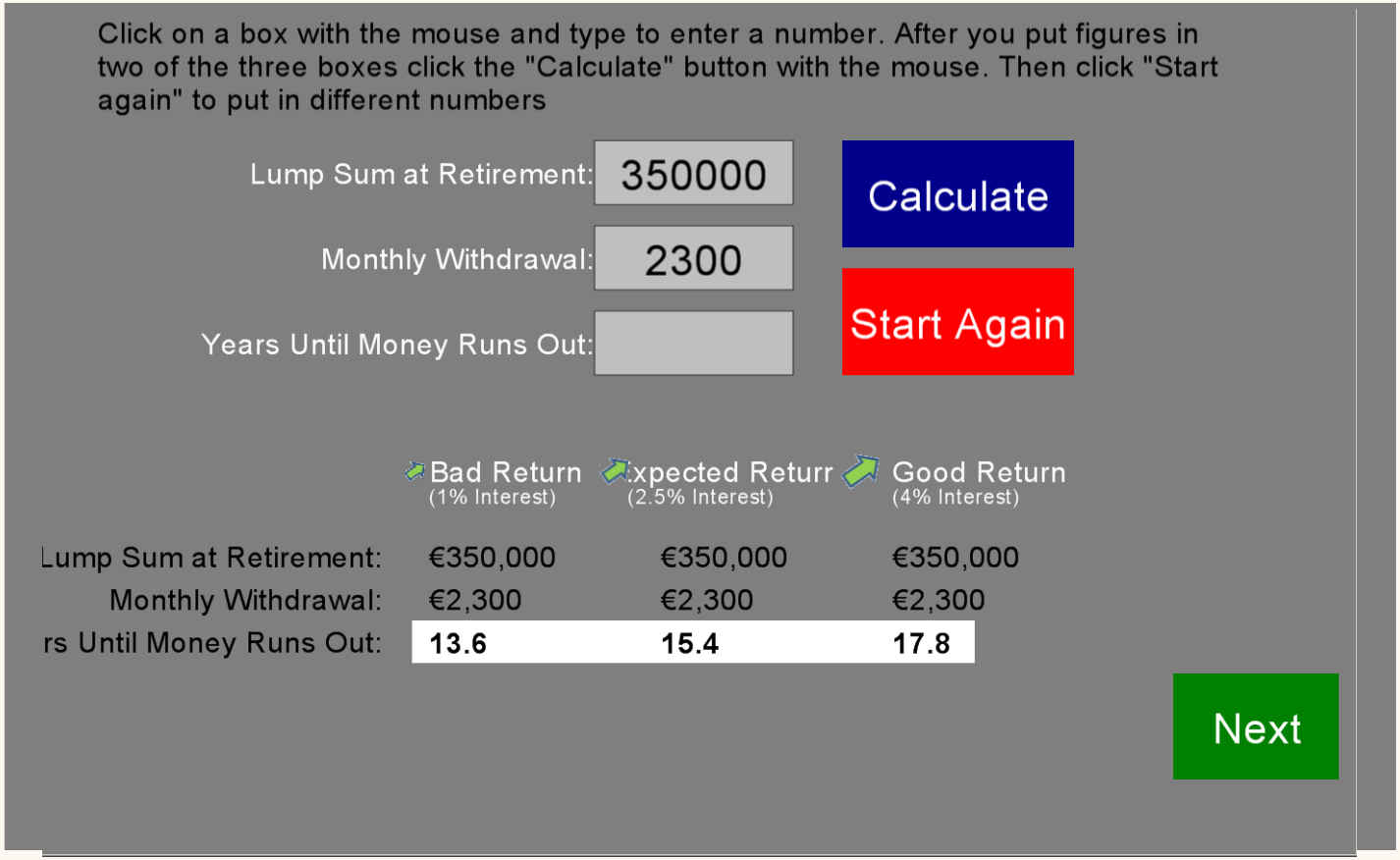
Type your answer and then hit the "Enter" button on the keyboard

Answer: € per month

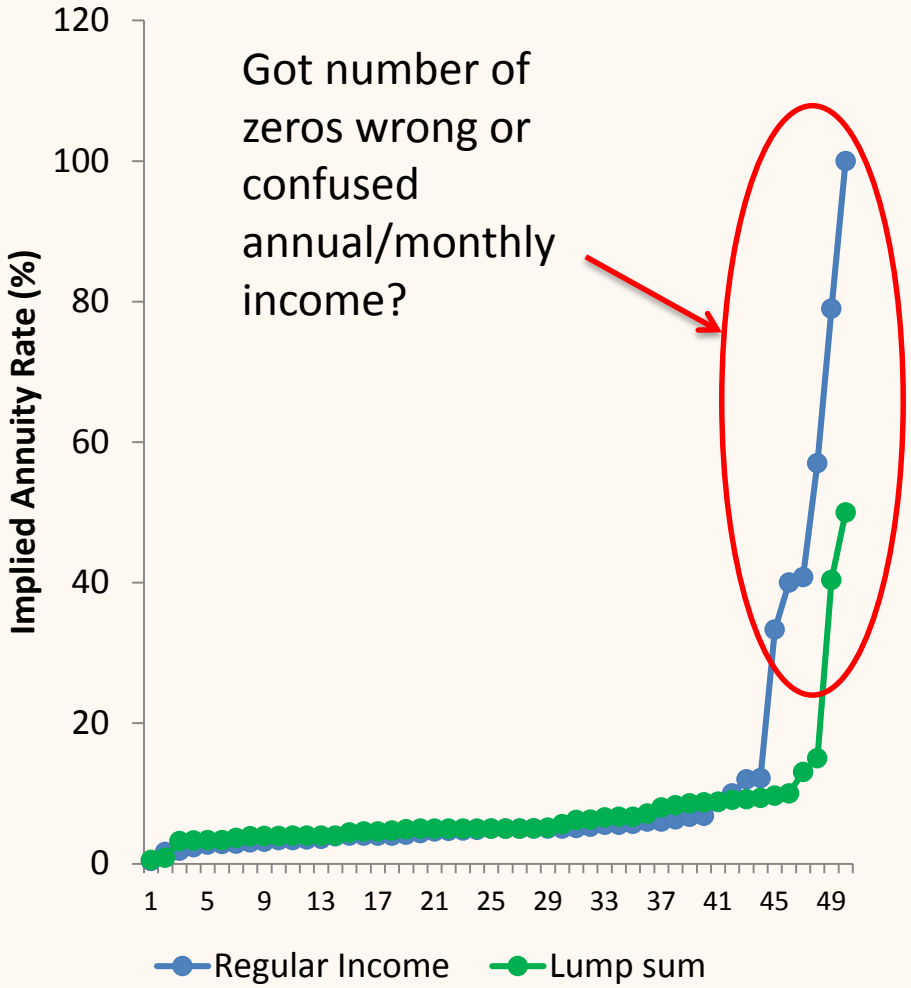
Experimental Procedure

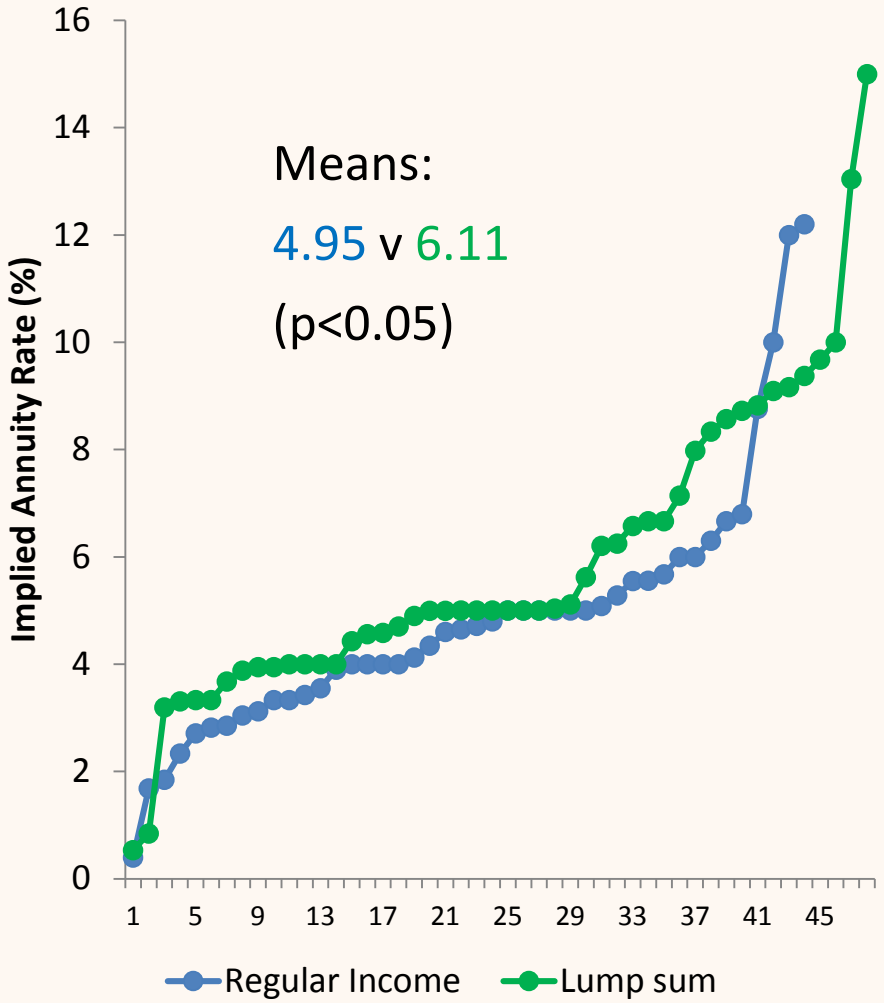


ARF Calculator

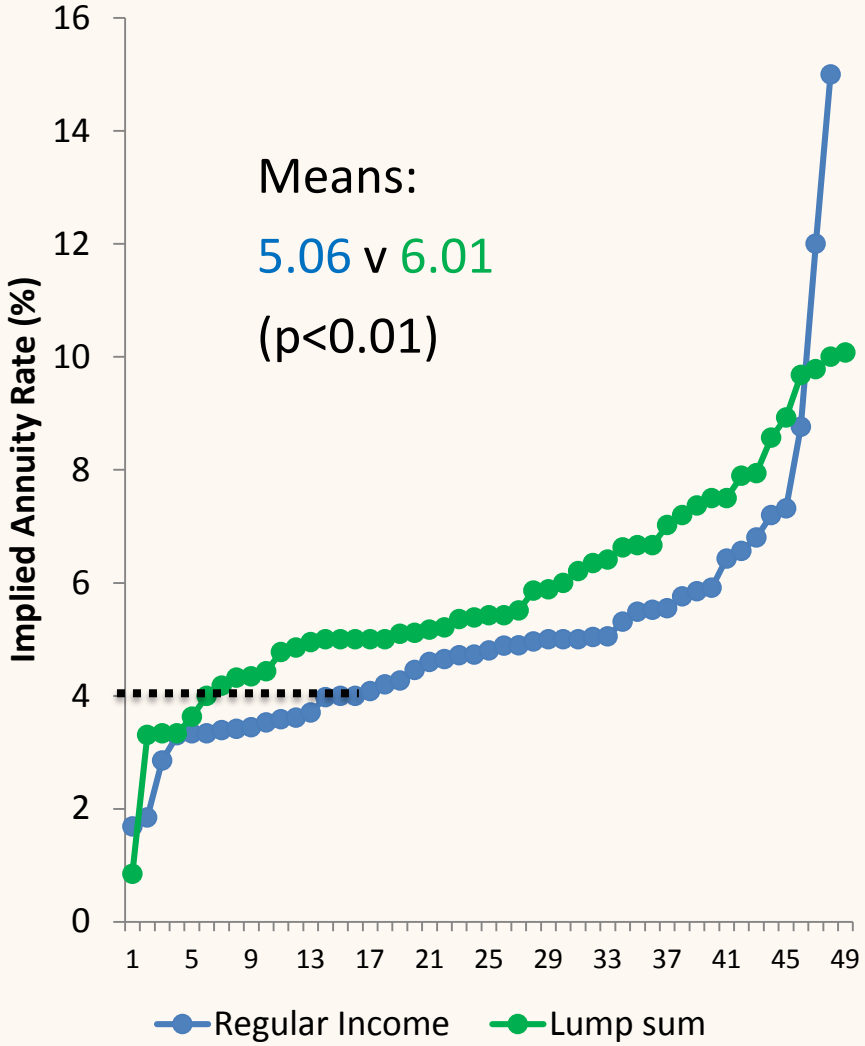


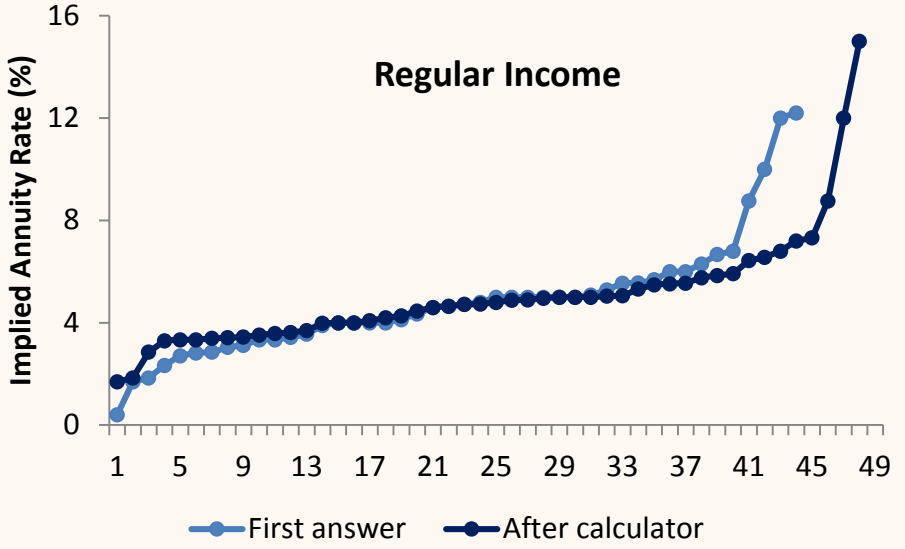
Results: Stage 1

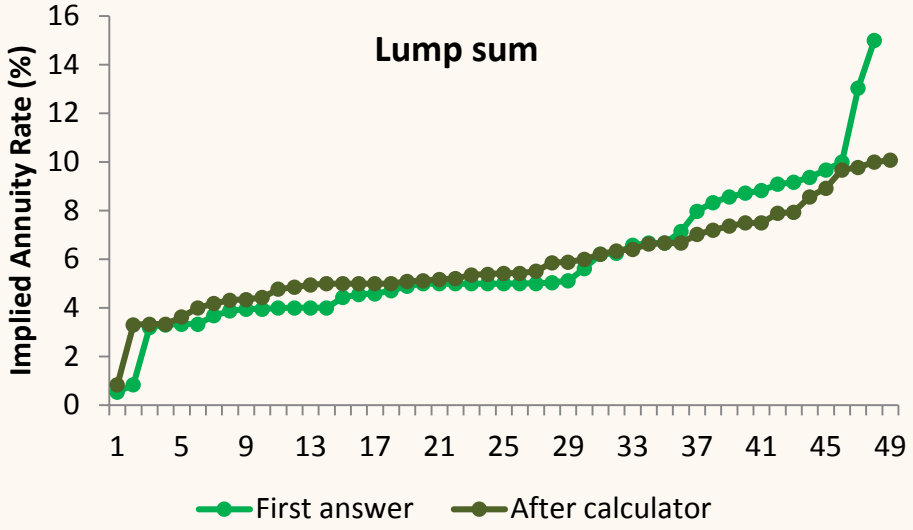




Results: Stage 3 – post calculator







Experiment 1 Results

[Some participants produced annuity rates < 1% or >20% - mostly by entering the wrong number of zeros. These were removed.]

Mean % annuity rates (sd) to convert:

	LS Group	RI Group	Ranksum
Stage 1	6.11 (2.61)	4.95 (2.28)	$p < 0.05$
Stage 3	6.01 (1.78)	5.06 (2.26)	$p < 0.01$
Stage 4	6.18 (2.32)	5.31 (2.97)	$P < 0.01$

- Significant also in RE models controlling for background characteristics
- Implied expected longevity from calculator associated with lower rates
- **NB. 33% versus 10% would take an annuity at market rate of 4% when converting from regular income to lump sum.**

Experiment 1 Results

What influenced people's decisions?

1. "I want to make sure I have enough income later in life"
2. "I want to prevent money running out too soon"
3. "I want flexibility in the timing of my spending"
4. "I am worried about the company not being able to pay me"

Experiment 2

- Possible issues with Experiment 1
  - Some data discarded because of nonsensical responses
  - Pension scheme members do not have to generate matching amounts, only to make a choice
- Binary choice task
  - Tests whether effect arises in both matching and choice
  - Tests a more realistic response
  - Allows a test of a neutral frame, where the pension is not initially described as a lump sum or income stream

Design details

- 180 participants
- Each made 6 choices in just one frame
- Mixture of low/high monthly payments and lump sums
- Median annuity rate 5.5% (2 – 14%)
- Also asked for expected longevity c.30 minutes later

LS Frame Task

As a result of saving for retirement you have a lump sum payment of €236,000 from the pension company. This is yours to save or spend as you please.

The company offers you a guaranteed monthly payment for life of €1,111 instead. In other words, they will pay you this amount every month until you die.

Keep your lump sum payment from the pension company of €236,000.

Take guaranteed monthly payment for life from the pension company of €1,111 instead.

Please click the option you would prefer, then click "Confirm".
Feel free to use the calculator.

Confirm

RI Frame Task

As a result of saving up for retirement you have a guaranteed monthly payment for life of €888 from the pension company.In other words, they will pay you this amount every month until you die.

The company offers you a once-off lump sum payment of €344,000 instead. This would be yours to save or spend as you please.

Keep your guaranteed monthly payment for life from the pensions company of €888.

Take lump sum payment from the pensions company of €344,000 instead.

Please click the option you would prefer, then click "Confirm".
Feel free to use the calculator.

Confirm

No Frame Task

You have saved up for retirement and now the pension company is offering you two options for how you take your pension.

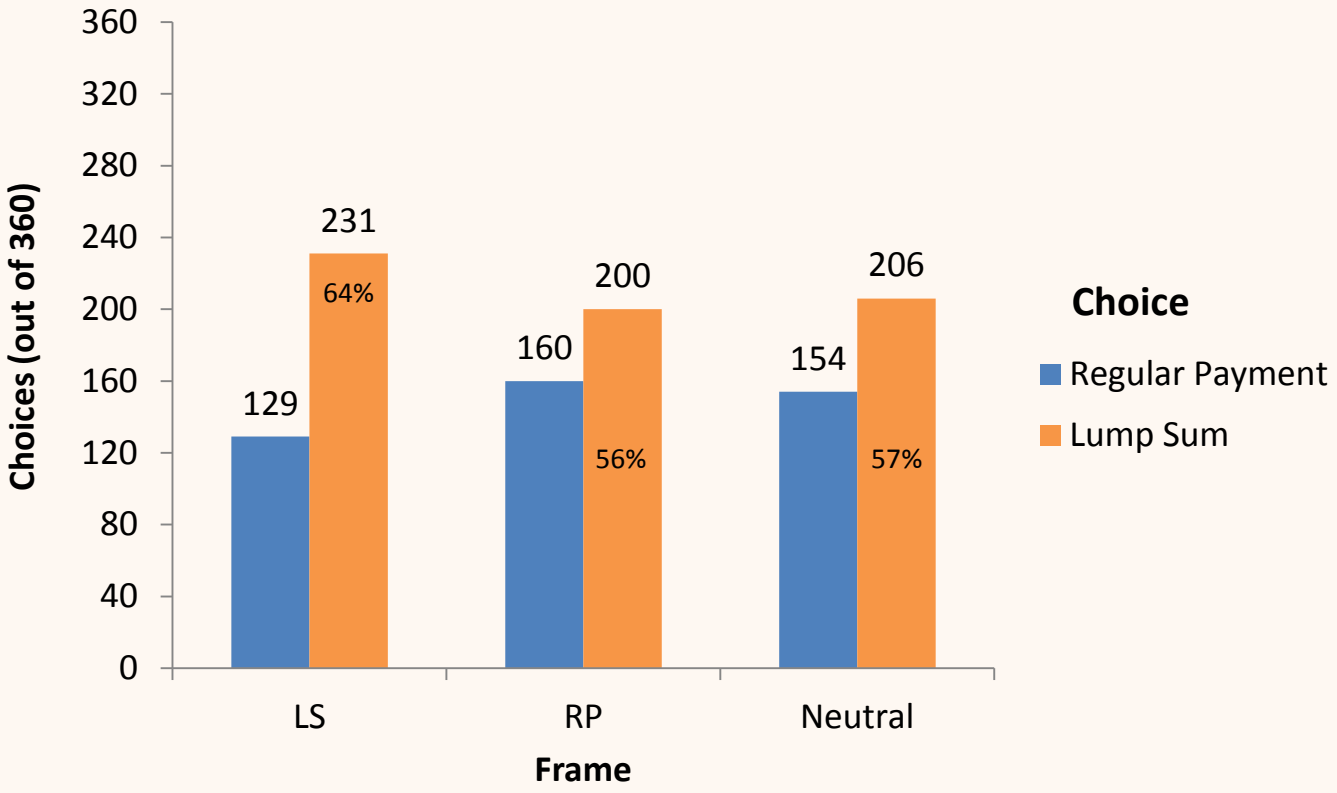
A guaranteed monthly payment for life from the pension company of €2,970. In other words, they will pay you this amount every month until you die.

A once off lump sum payment from the pension company of €440,000. This is yours to save or spend as you please.

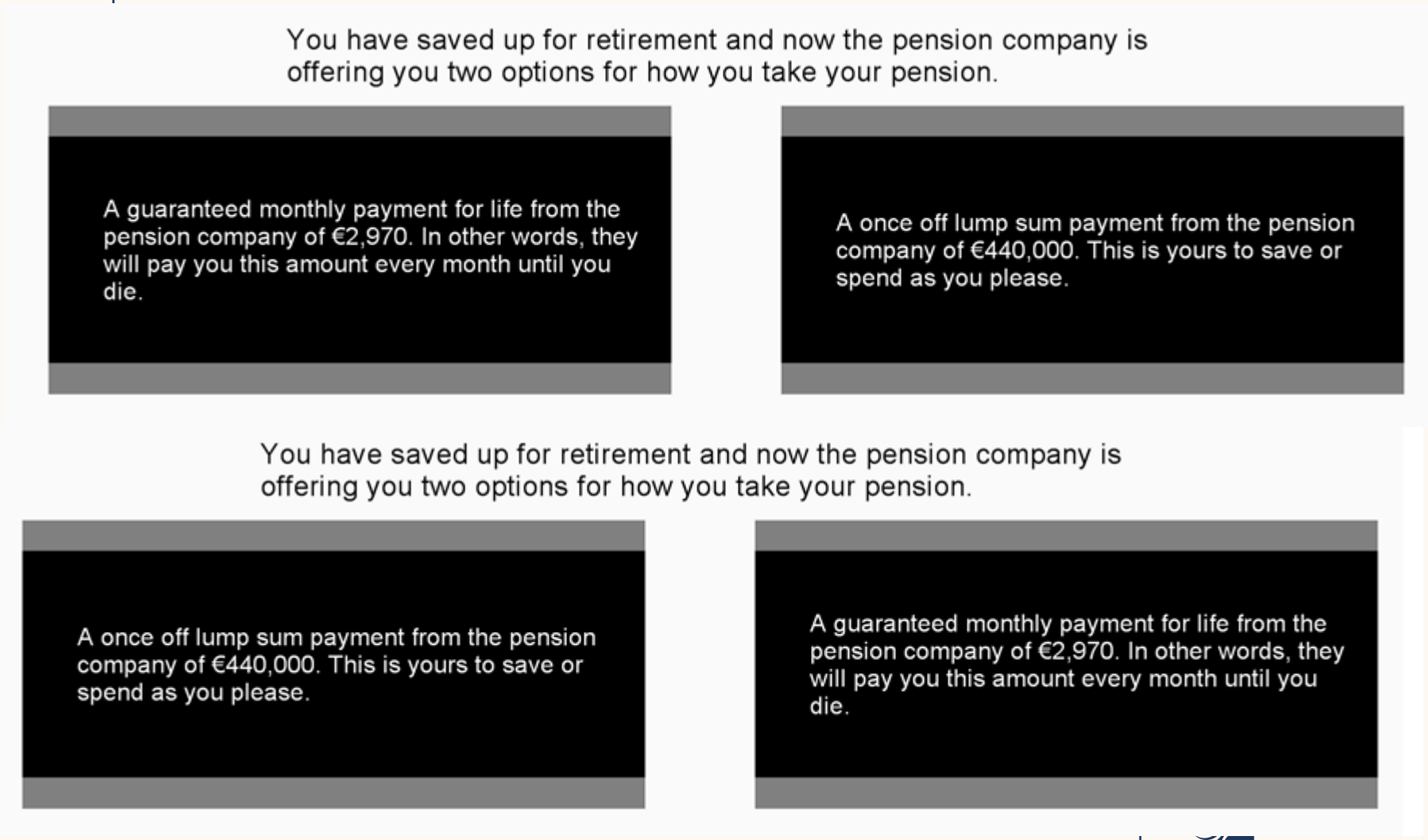
Please click the option you would prefer, then click "Confirm".
Feel free to use the calculator.

Confirm

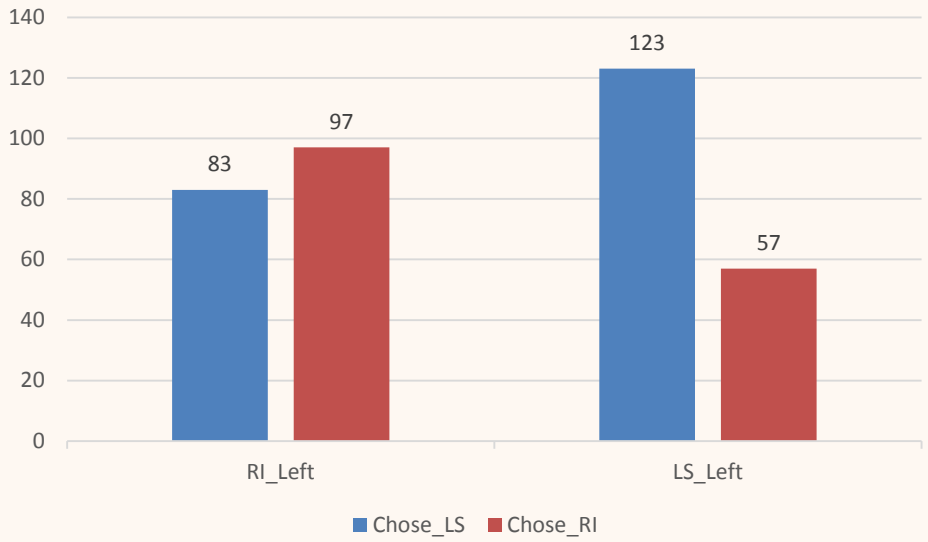
Descriptive Results



BUT! Left-right bias in 'neutral' frame



Preference for option on the left



- Left-right bias same magnitude as main effect between lump sum and annuity conditions in regression model

RE models – p(chose lump sum)

But:

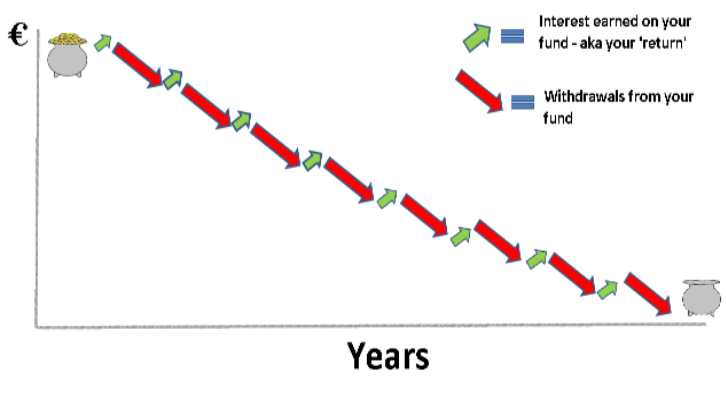
Same bias in neutral frame condition towards option on left !
($p < 0.01$)

Also:

- Males more likely to choose LS
- Older people more likely to choose LS

	(1)	(2)
Annuity rate	-.584 (.049)***	-.585 (.049)***
Frame (Ref. RP)		
Neutral	.202 (.444)	.333 (.438)
LS	.808 (.448)**	1.047 (.450)**
Expected Longevity (Ref < 70)		
70-79		-.639 (.663)
80-89		-1.302 (.783)**
90+		-1.963 (.691)***
Constant	4.424 (.432)***	4.801 (.691)***
Obs. (Participants)	1,080 (180)	1,080 (180)

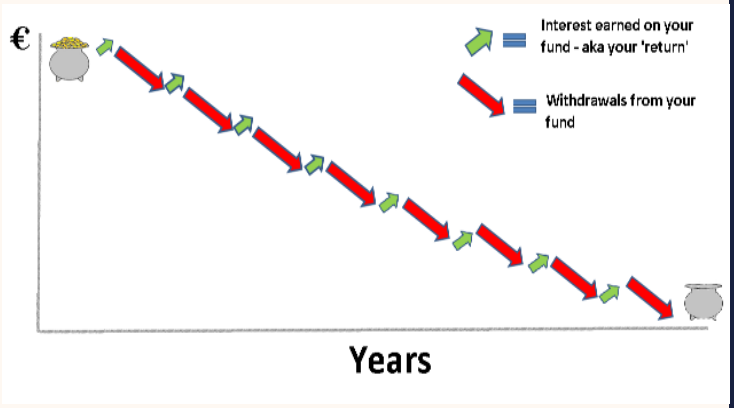
Preliminary Conclusions



- **Main result: Annuitisation affected by framing**
  - In *choice* as well as *matching* task
  - Large effect: 1-2 %-points on annuity rate
  - More than doubles demand
- Note: evidence from "neutral" condition implies effect is not about defaults, endowment, inertia or implicit advice.
- Instead, the effect is associated with the direction of conversion?

64%

Follow on questions from this study?



- What explains this "point of reference" effect?
- What implications does it have for (all areas of) financial decision making?
- Is there a way to present retirement options letters that reduces framing?
- Should we also test how well consumers comprehend these retirement options?
- Can we design behaviourally informed tools to inform retirement accumulation and decumulation?

64%

Where else may these Qs apply to?

1. ARFs: Comprehension, risk perception and choice.

2. Diversifying investments: How do consumers intuit this? Do framing or reference points influence decisions?

3. Portfolio management: How is this choice made? How does the interface for management influence decisions? Can certain interfaces influence better comprehension and financial decisions?