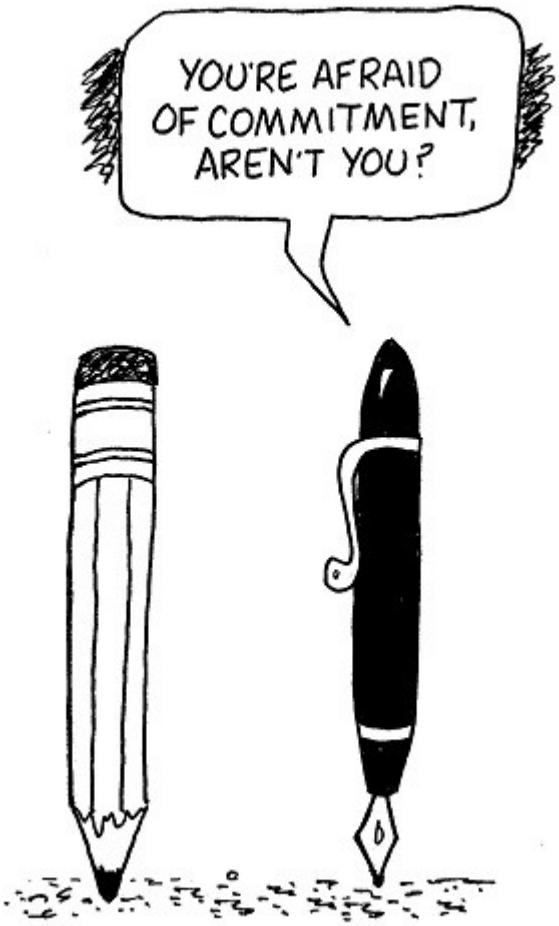
Payout design

Rafal Chomik & John Piggott

1. Introduction
2. Behavioural bias
3. Response: Defaults
4. Default design

Intro: Why we're here

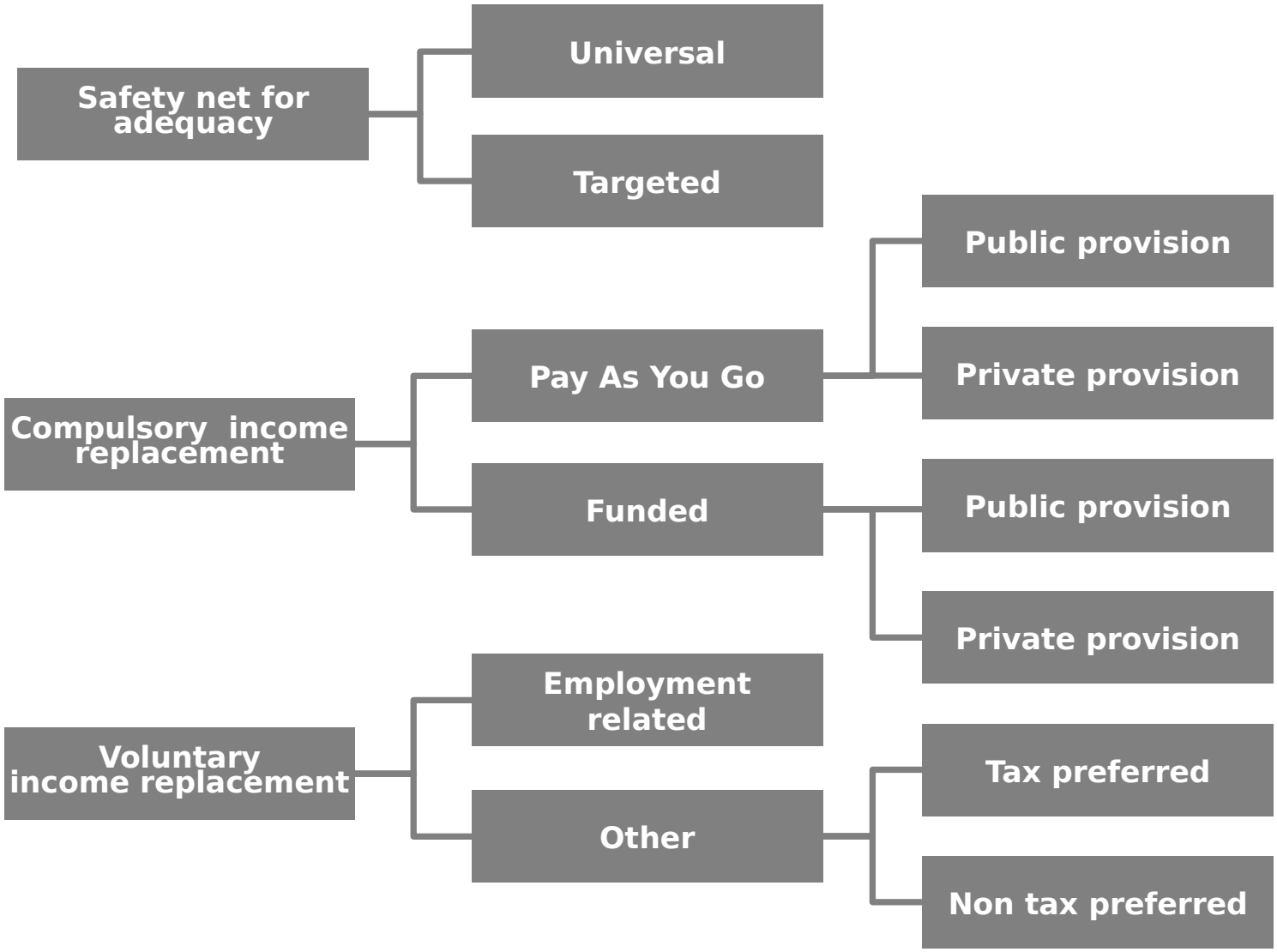
- Gov intervention in pensions mainly because humans have commitment issues
- The NPS partially tackles it in accumulation
- But ignores it in decumulation



Intro: Purpose of a pension plan

- Facilitate consumption smoothing over course of individual's life
- Help people manage financial risks in retirement
- Be fully funded from savings
- Be invested in best interests of members
- Alleviate fiscal pressures on Government
- Be simple, efficient, and provide safeguards (complexity is less appropriate for a compulsory system)

Intro: Pension system design



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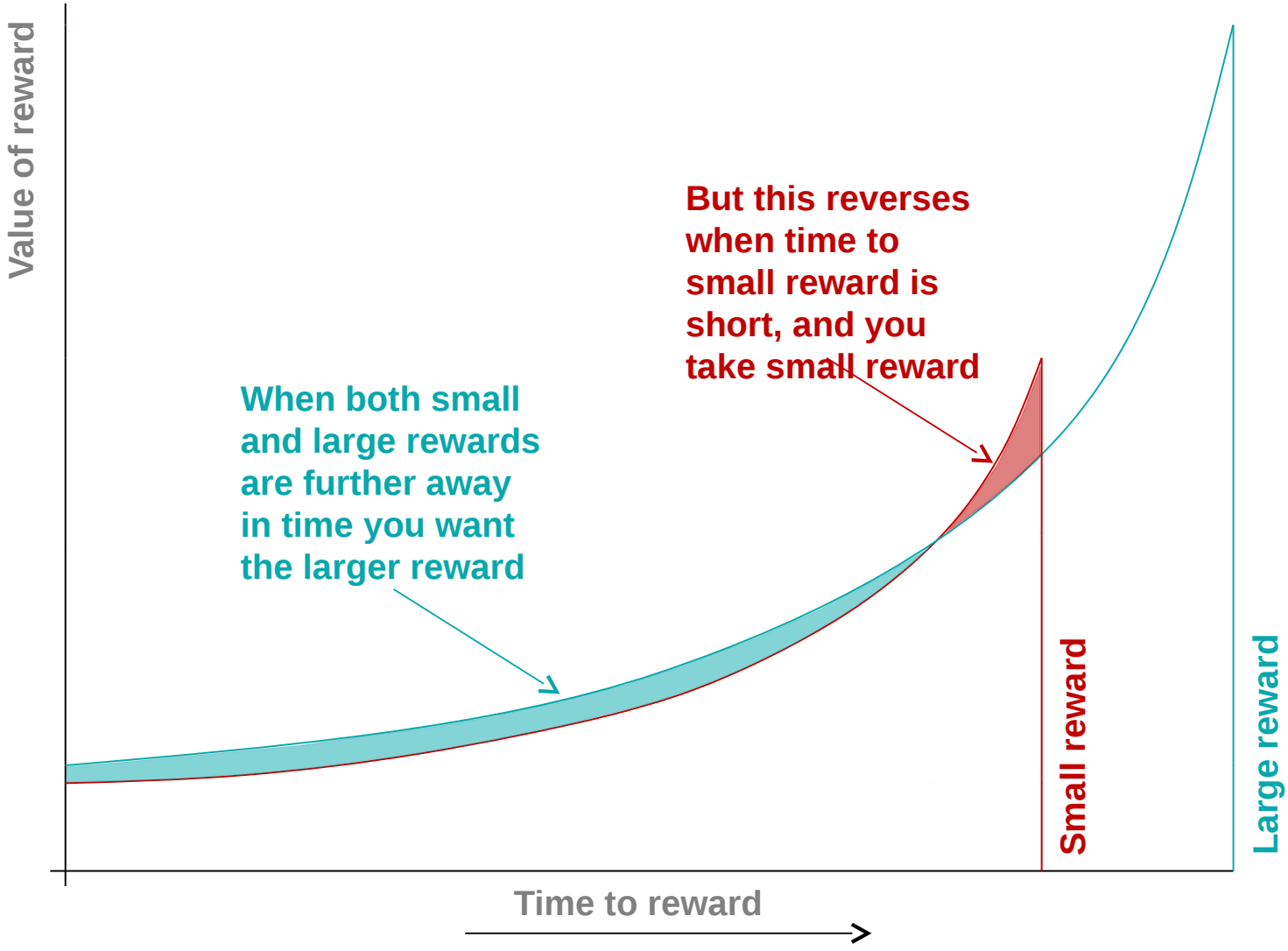
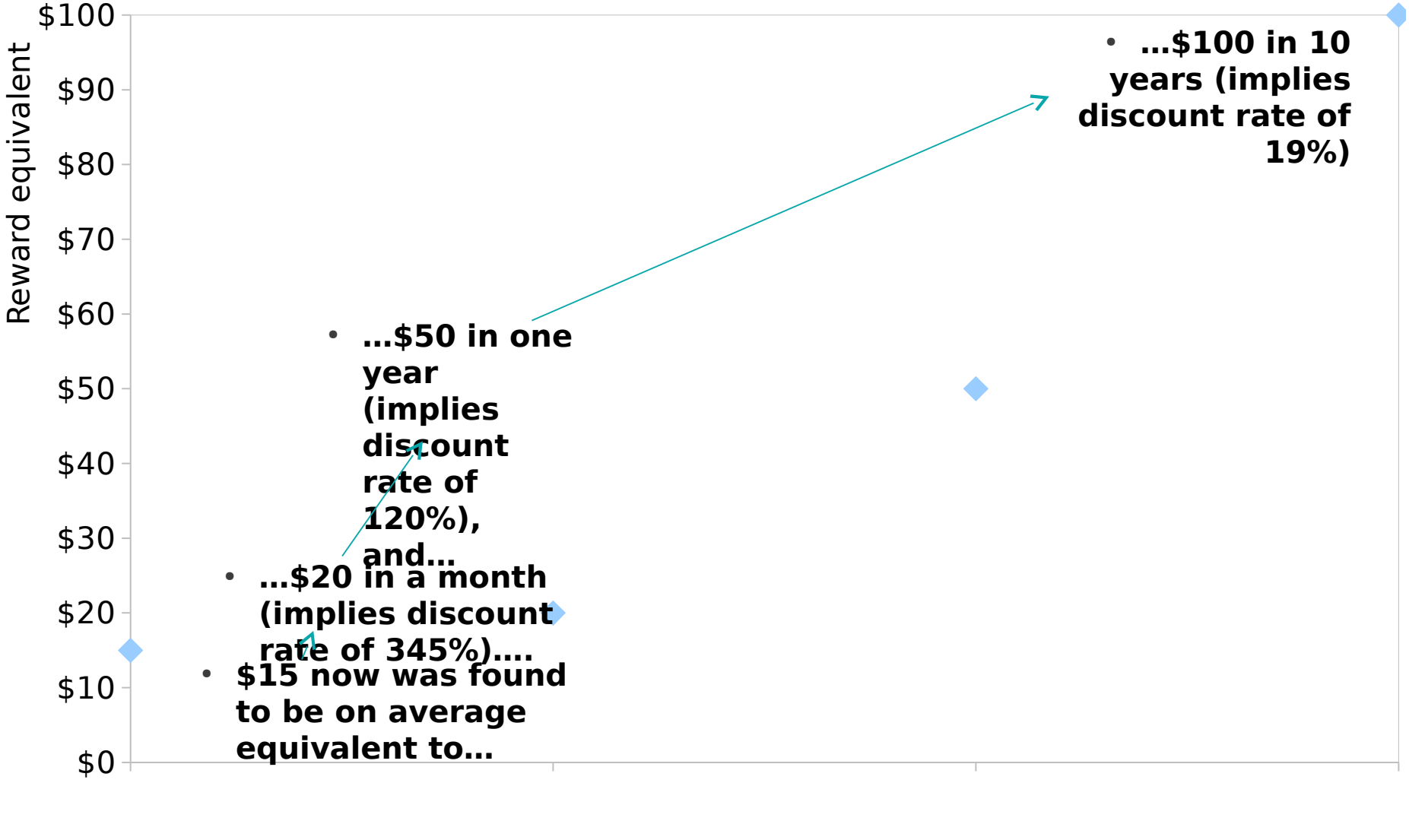
Behavioural issues



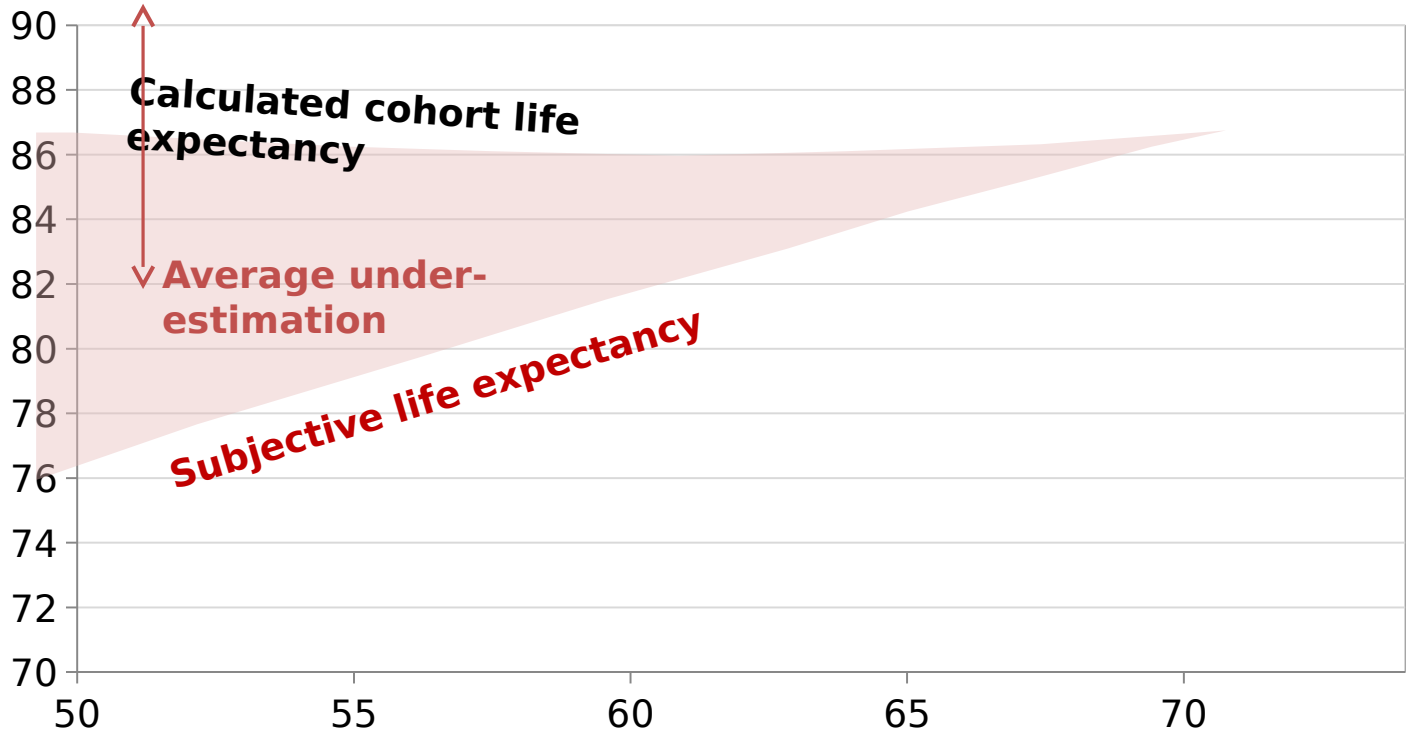
Behavioural issues



Source: Thaler (1981) 'An Economic Theory of Self-Control'

Information issues: Longevity

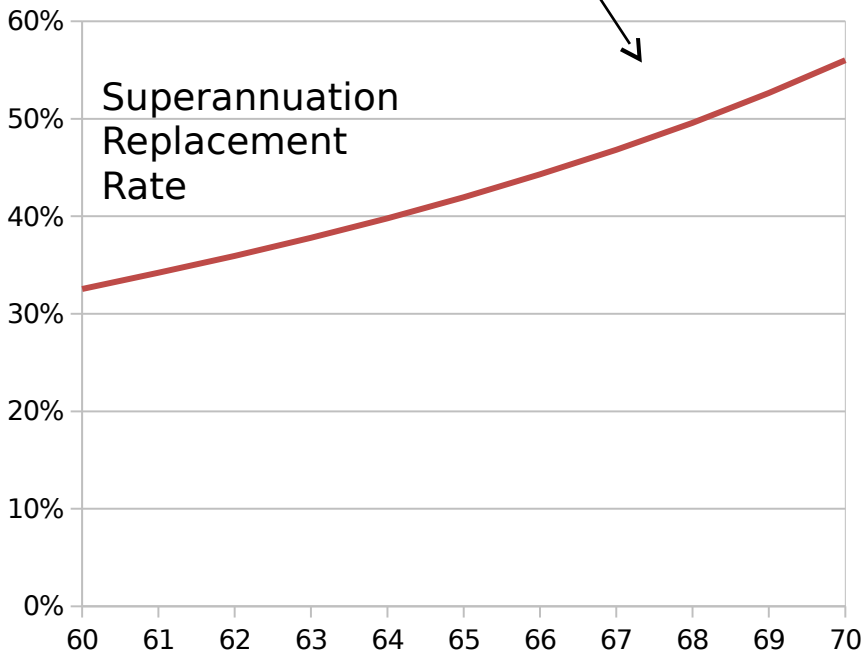
E.g. How long do you think you will live?



Source: Wu, Stephens, and Thorp 2014
Note: under- (over-) estimation was actually based on characteristics such as education, marital and work status

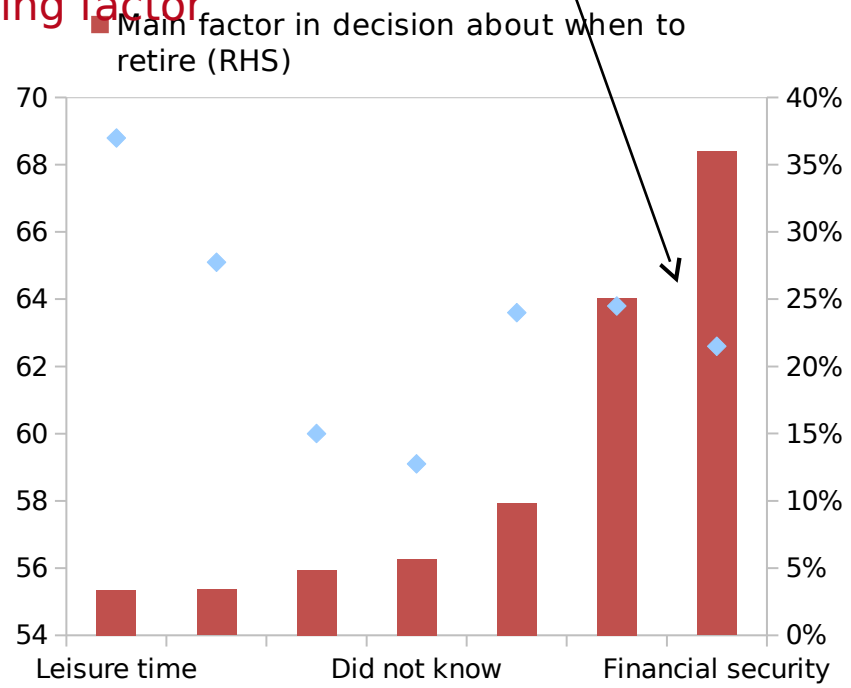
Complex decision issues: Retirement

Super already introduces incentives



Example of benefits accumulated if retire at given age under reasonable assumptions

But many still intend to retire at 62... Despite 'financial security' being key deciding factor



Decision factor by intended retirement age (persons in labour force 45+ who intend to retire)

Source: Chomik and Piggott (2012) and ABS Cat. 62380DO010_2010201106

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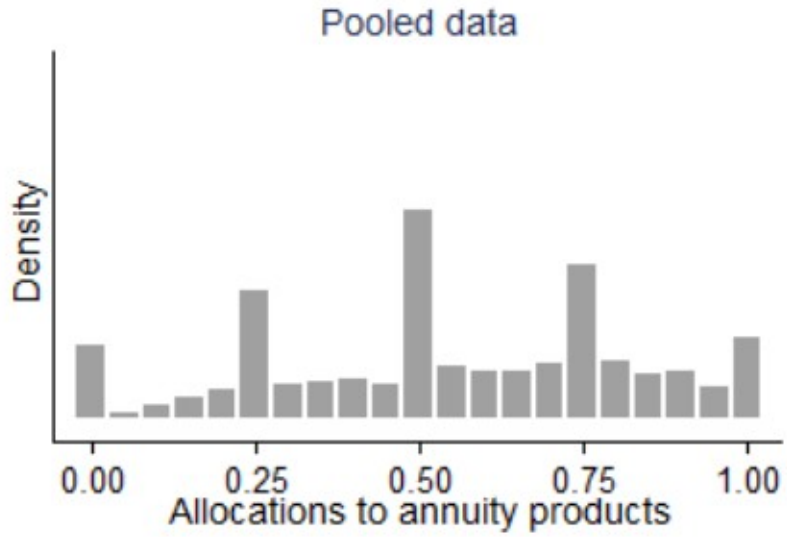
Spectrum of responses

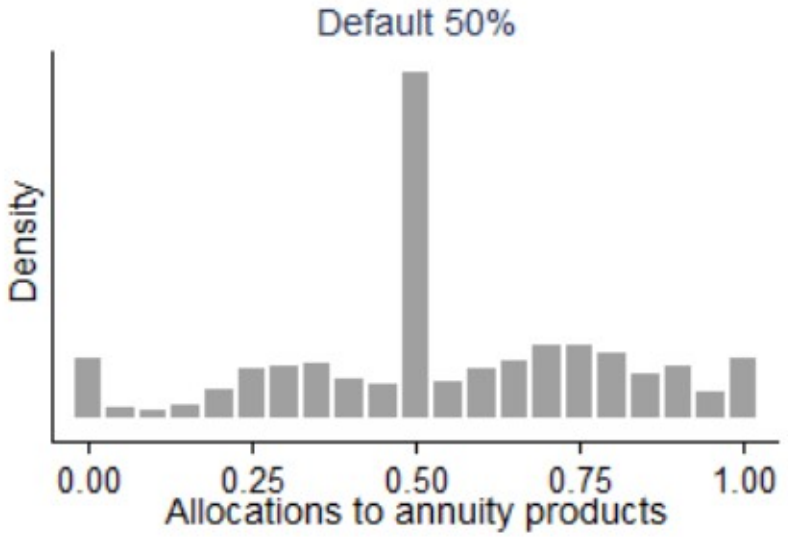
STATUS QUOINCENTIVES DEFAULTS COMPULSION

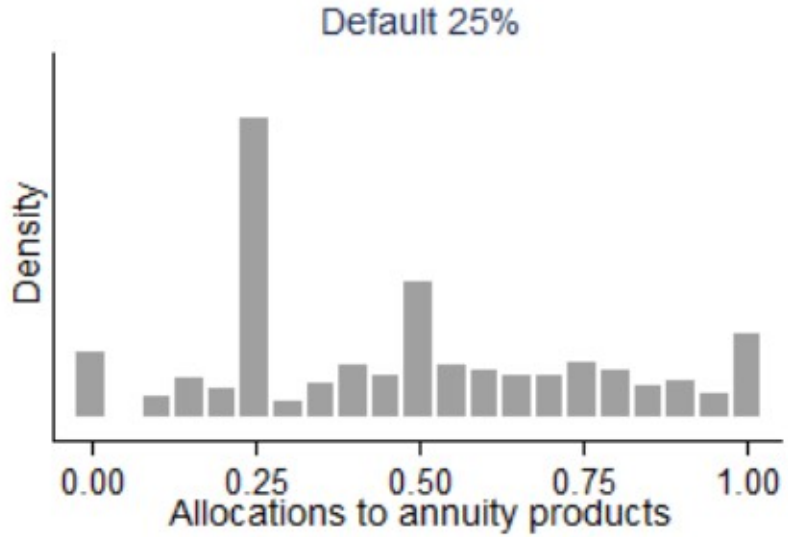
Choice in pensions across countries

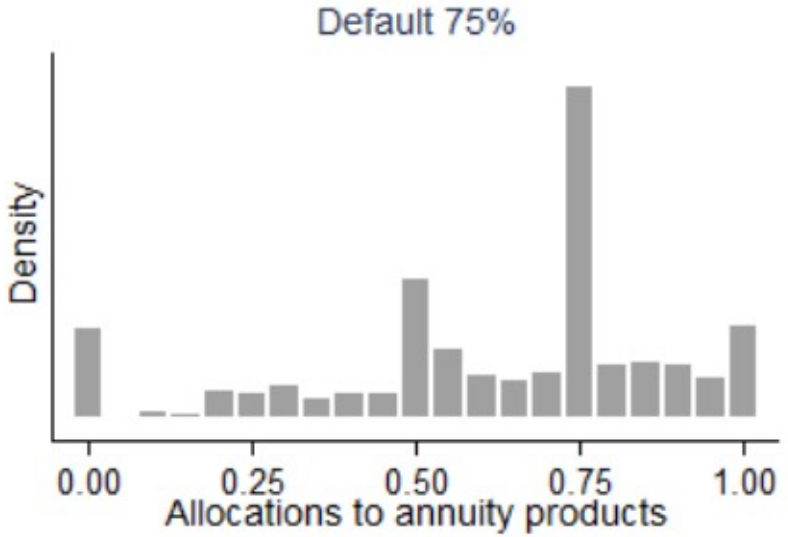
	No soft or hard compulsion[a]	Default	Tax preference only	Mandated / highly restricted choice[b]
Enrolment				AUS, CHE, CHI, DNK (ATP), DNK (OCCUP), EST, HUN, ISR, MEX, NOR8, POL, SVK, SWE (PPM)
Contribution				AUS, CHE, CHI, DNK (ATP), DNK (OCCUP), EST, HUN, ISR, MEX, NOR, POL, SVK, SWE (PPM)
Allocation	SVK	AUS, CHI, DNK (Occup.)3, MEX, EST, HUN, NOR, SWE (PPM)		CHE, DNK (ATP), ISR, POL
Provider	CHE, CHI, EST, SVK	AUS, POL, MEX, ISR		DNK (ATP), DNK (Occup.), HUN, NOR, SWE (PPM)
Advice	AUS, CHI, DNK (ATP), DNK (OCCUP), EST, HUN, ISR, MEX, NOR1, POL, SVK, SWE (PPM)			
Retirement phase	CHI1, MEX6			AUS, CHE, DNK (ATP), DNK (OCCUP), EST, HUN, ISR, NOR, POL, SVK, SWE (PPM)

Defaults work









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Where to start?

1. Product/s
2. Phasing
3. Trigger
4. Coverage
5. Account
6. Opt-out
7. Thresholds
8. Provider
9. Price / fees
10. Incentives

Product

	Longevity	Investment risk	Inflation risk	Liquidity risk	Timing (or sequence) risk	replacement rate (or price) risk	counter-party (or provider) risk
Phased withdrawal (min)	LOW	LOW	LOW	HIGH	HIGH	HIGH	HIGH
Phased withdrawal (min-max)	LOW	LOW	LOW	MED	HIGH	HIGH	HIGH
Immediate fixed-income fixed-term annuity	LOW-MED	HIGH	LOW	LOW	LOW	MED	MED
Immediate inflation-indexed fixed-term annuity	LOW-MED	HIGH	HIGH	LOW	LOW	LOW	MED
Immediate fixed-income life annuity	HIGH	HIGH	LOW	LOW	LOW	MED	LOW
Immediate inflation-indexed life annuity	HIGH	HIGH	HIGH	LOW	LOW	LOW	LOW
Immediate variable-income life annuity	MED	LOW	MED	LOW	LOW	LOW	LOW
Immediate variable-income guaranteed annuity	HIGH	MED	MED	LOW	LOW	LOW	LOW
Group self annuitisation	MED	MED	LOW	LOW	LOW	HIGH	HIGH
Deferred inflation-indexed annuity	HIGH	HIGH	HIGH	LOW	LOW	MED	LOW
Phased withdrawal + Deferred indexed annuity	HIGH	MED	MED	MED	MED	HIGH	LOW
Phased withdrawal + Deferred indexed annuity (annual purchase)	HIGH	MED	MED	MED	HIGH	HIGH	LOW

Phasing of product mix

- Arbitrarily: age 85, indexed with life expectancy?
- At a arbitrary proportion of expected life in retirement?
- Average life expectancy, capturing tail end longevity risk?

Trigger

- Preservation age + a given number of months with no contributions?
- Preservation age + employer + no action by an individual?
- FSI opted for instruction first

Coverage

- Which classes of workers?
- Same for self-employed workers, who could instead actively opt-in?

Opt-out

- Time period (e.g. 3 months, which would require structuring that doesn’t lock in the purchase of an insurance product until the opt-out period is over)
- Method of notification

Thresholds

- Minimum, below which assume trivial commutation. Based on a proportion (e.g., 25%) or a specific level (e.g., $100,000)?
- Maximum (e.g., $2m), above which funds would remain in accumulation mode or go into alt product?

Provider

- License holders + nomination from trustees?
- Funds vs insurers?
- Prudentially managed winner of semi-regular auction (on top of FSI inquiry's suggestion on MySuper tendering)?

Price / fees

- Retail or wholesale market price?
- Regulated levels (e.g. NEST in UK requires min fees to be part of accumulation default)?
- Regulated structures (types of implicit/explicit fees allowed/disallowed, e.g., opt out fees)?

Incentives

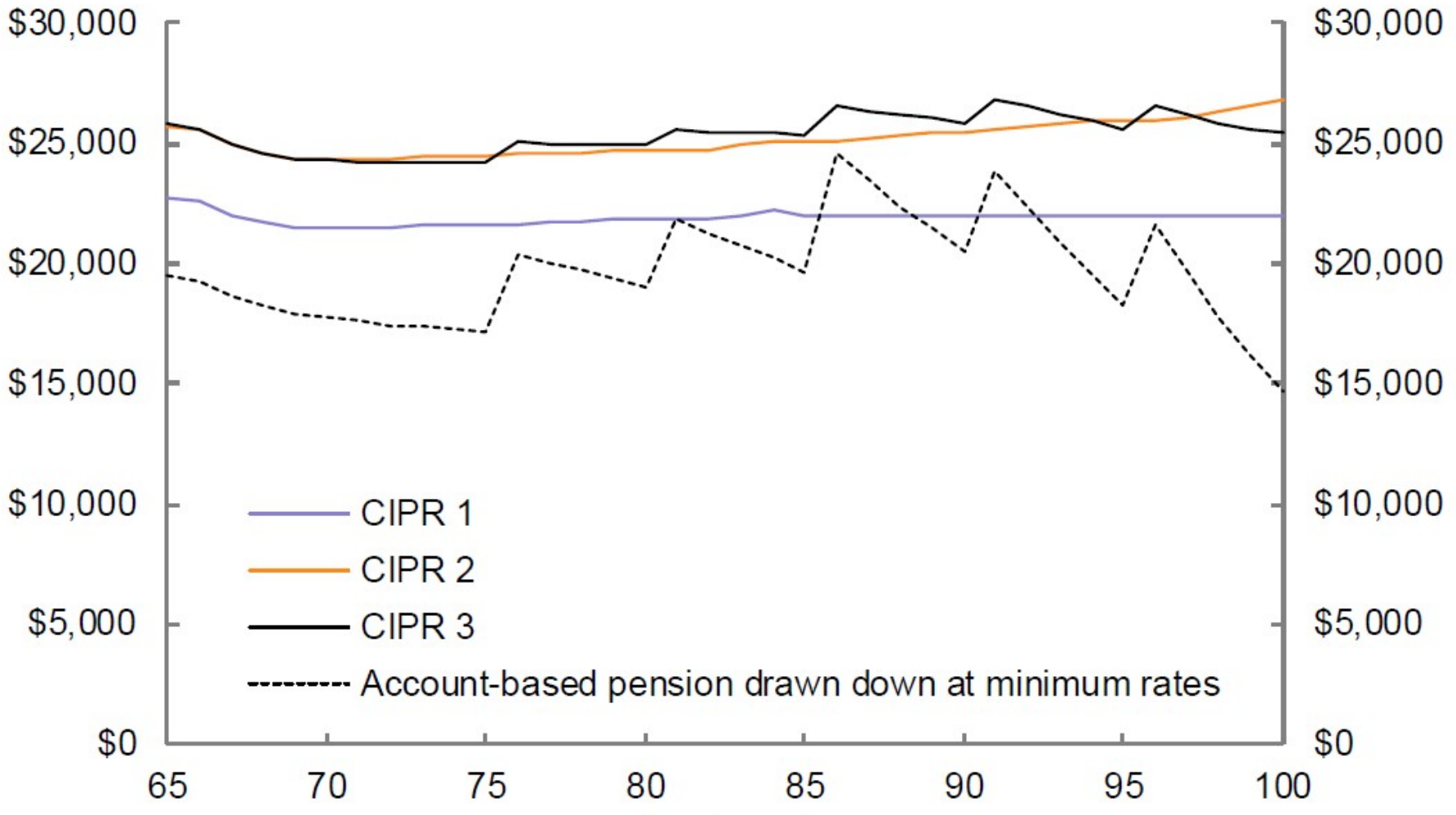
- Taxing lump-sums or withdrawals (given default min/max)?
- Changing means test treatment?

FSI examples

	Longevity product (a)	Allocation to longevity product	Draw-down of account-based pension	Allocation to account-based pension
CIPR 1	DLA	23%	Exhaust balance at age 85	77%
CIPR 2	Deferred GSA	17%	Exhaust balance at age 85	83%
CIPR 3	GSA	75%	Minimum rates	25%

(a) Deferred products commence payments at age 85.

FSI examples



FSI examples

	Expected income throughout retirement (NPV)[84]	Increase over account-based pension[85]	Increase over account-based pension (%)
Account-based pension drawn down at minimum rates	$275,000	–	–
CIPR 1[86]	$314,000	$40,000	14
CIPR 2	$357,000	$82,000	30
CIPR 3	$359,000	$85,000	31

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Questions?

Intro: Pension System Design