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# The role of home equity for retirement financial planning in China

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# Outline

- Background: role of reverse mortgage in retirement planning, current product in China
- Online survey: elicit 'interest in' reverse mortgage in China
- Survey results, discussion, conclusions

# Motivation

- A reverse mortgage is a financial agreement in which a homeowner relinquishes equity in their home in exchange for one off and/or regular payments
- Reverse mortgages:
  - Allow older homeowners to liquidate and consume home equity without relocating
  - Provide retirement income
  - Finance health/aged care costs
  - Allow bring forward of bequests
- Could be well suited to China → rapidly ageing population, unsustainable public pensions, little private pension provision, limited access to financial assets, high levels of homeownership, policy interest

# Evidence of a Reverse Mortgage puzzle

- Lifecycle models suggest large utility gains from Reverse Mortgages (*Davidoff 2009, Hanewald et al 2016, Nakajima & Telyukova 2017*)
  - ..... but low observed demand
- Explanations:
  - Bequest motives (*Elsinga et al 2010*)
  - Debt aversion (*Fornero et al 2016, Jefferson et al 2017, Dillingh et al 2017*)
  - Breakdown of intergenerational reciprocal arrangements (*Jefferson et al 2017*)
  - Financial illiteracy and poor product knowledge (*Davidoff et al 2017*)
  - High costs → adverse selection/moral hazard (*Fornero et al 2016*)
  - + **behavioural factors + supply-side issues (distribution and access)**

# Reverse Mortgage pilot in China – 117 contracts since 2014

- ‘House for pension’ program by Happy Life Insurance since July 2014
- Initially Beijing, Shanghai, Guangzhou and Wuhan (extended in 2016)
- Product features:
  - Fixed monthly income for life (linked with deferred annuity)
  - Fixed interest rate of 5.5%, no negative equity guarantee
  - Optional death benefit
  - Eligibility: ages 60-85
- Why lack of interest?
  - Children disapprove parents mortgaging homes in return for monthly pension
  - Legal/regulatory issues, concerns about residential property price fluctuations, high mortgage interest rates
  - Perception of product complexity

# Our aim & contribution

- Elicit 'interest' in Reverse Mortgages in China and whether differs between older homeowners and adult children
- Investigate impact of alternative information frames:
  - Increase own consumption
  - Finance better medical treatments and/or better aged care services
  - Support children/grandchildren
  - Greater financial flexibility in retirement
- Analyze preferred use of payments
- First survey of 'interest' in Reverse Mortgages in China

# Survey design

Two online surveys conducted in October 2017 (dataSpring)

- Survey 1: urban homeowners aged 45-69 (n=1,100)
- Survey 2: urban adult children of urban homeowners aged 20-49 (n=1,100)

Survey structure – three parts

1. Screening questions
2. Survey task
  - Reverse Mortgage product description + numerical example (4 information frames for potential use of Reverse Mortgages)
  - Questions on ‘interest in product’, ‘use of payments’
  - Product knowledge quiz
3. Covariate collection
  - Demographics, income, wealth, financial competence (financial literacy, numeracy), bequest motive, financial risk attitudes, personality traits, expectations of and preferences for aged care



# Reverse Mortgage product description

- Product design addresses deficiencies in existing (Happy Life) product + informed by focus groups in Beijing → *interest rate, buy-back, right to live in property, valuation, natural disasters etc....*
- More detailed description than previous studies (*Davidoff et al 2017, Fornero et al 2016, Dillingh et al 2017*), includes worked example

*“Product ABC allows retired homeowners to use their home as a collateral to receive cash payments, while **allowing them to still own and live in the property.** Product ABC is offered by a large state-owned Chinese bank, with **a guarantee from the government** for the payments.*

*This product has the following characteristics:  
At the beginning of the contract:*

- *You can **choose how much** and **how** you will be paid. You can choose between a lump sum, lifetime fixed regular payments or flexible payments depending on your needs.*
- ...



# Information frames for potential use of Reverse Mortgage payments

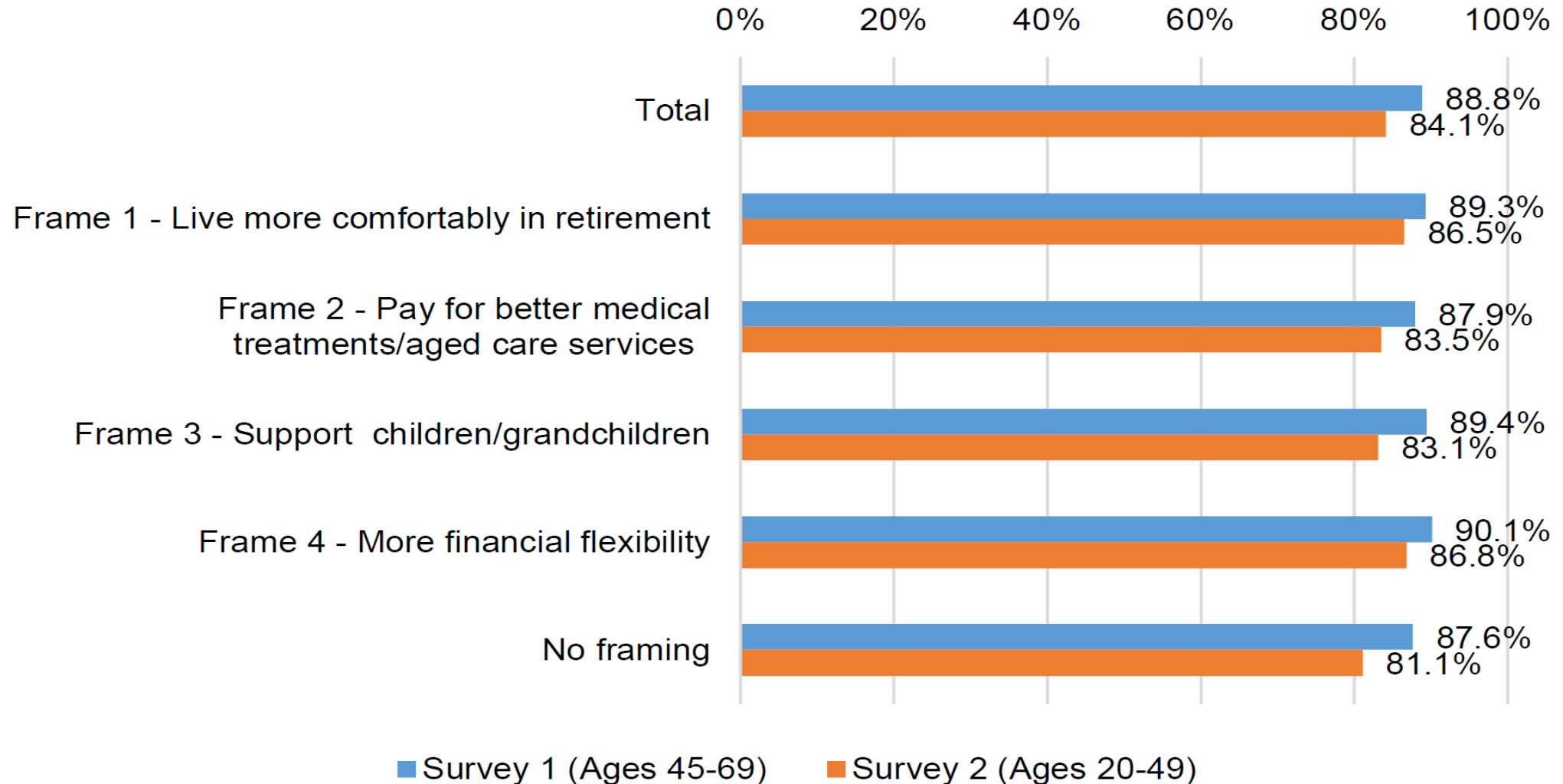
*“Retired homeowners can use the payments from ABC product, for example, but not limited to, to ...*

- *Live more comfortably in retirement, to afford (more) assistance with housekeeping, or to afford extras like a new car, travel or better furniture.” (Frame 1)*
- *Pay for better medical treatments and/or better aged care services, including home care.” (Frame 2)*
- *Support their children and/or grandchildren to pay for their education, pay for their wedding, help them buy a property or provide extra income for everyday expenses.” (Frame 3)*
- *Have more flexibility to pay for any expenses in retirement.” (Frame 4)*
- *No framing (Frame 5)*

# Interest in Reverse Mortgages – high in all frames

Survey 1 (Ages 45-69): Would you be interested in such a product if it was available? (Y/N)

Survey 2 (Ages 20-49): Would you recommend this product to your parents if it was available? (Y/N)



# What explains interest in Reverse Mortgages?

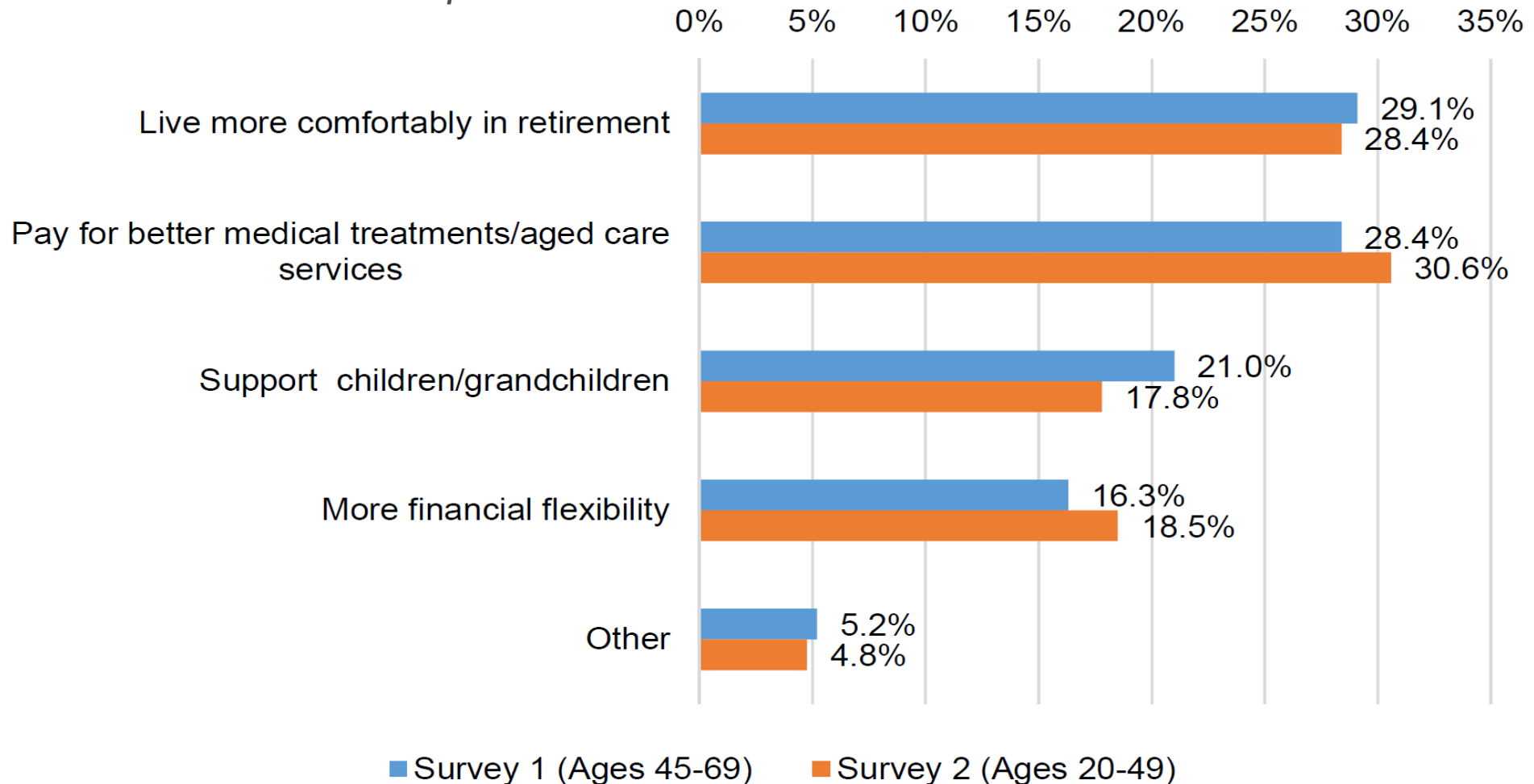
	Parents sample (Age 45-69)	Adult children sample (Age 20-49)
Use of payment frames	-	-
RM product familiarity	+ve *	+ve ***
RM product understanding	+ve ***	+ve *
Financial literacy	+ve *	-ve *
Numeracy	+ve *	-
Education (degree)	+ve **	+ve *
Risk tolerance	+ve ***	+ve ***
Female	+ve **	-
One or more children	-	+ve **
Grandchildren	+ve *	NA
Prefer formal aged care at home	+ve **	NA
Intended bequest	-ve *	NA
Siblings	NA	+ve ***
Parents intended bequest	NA	+ve *

# Use of Reverse Mortgage payments

**Survey 1 (Ages 45-69):** How would you allocate the use of payments from product ABC?

*Please allocate 100 points ....*

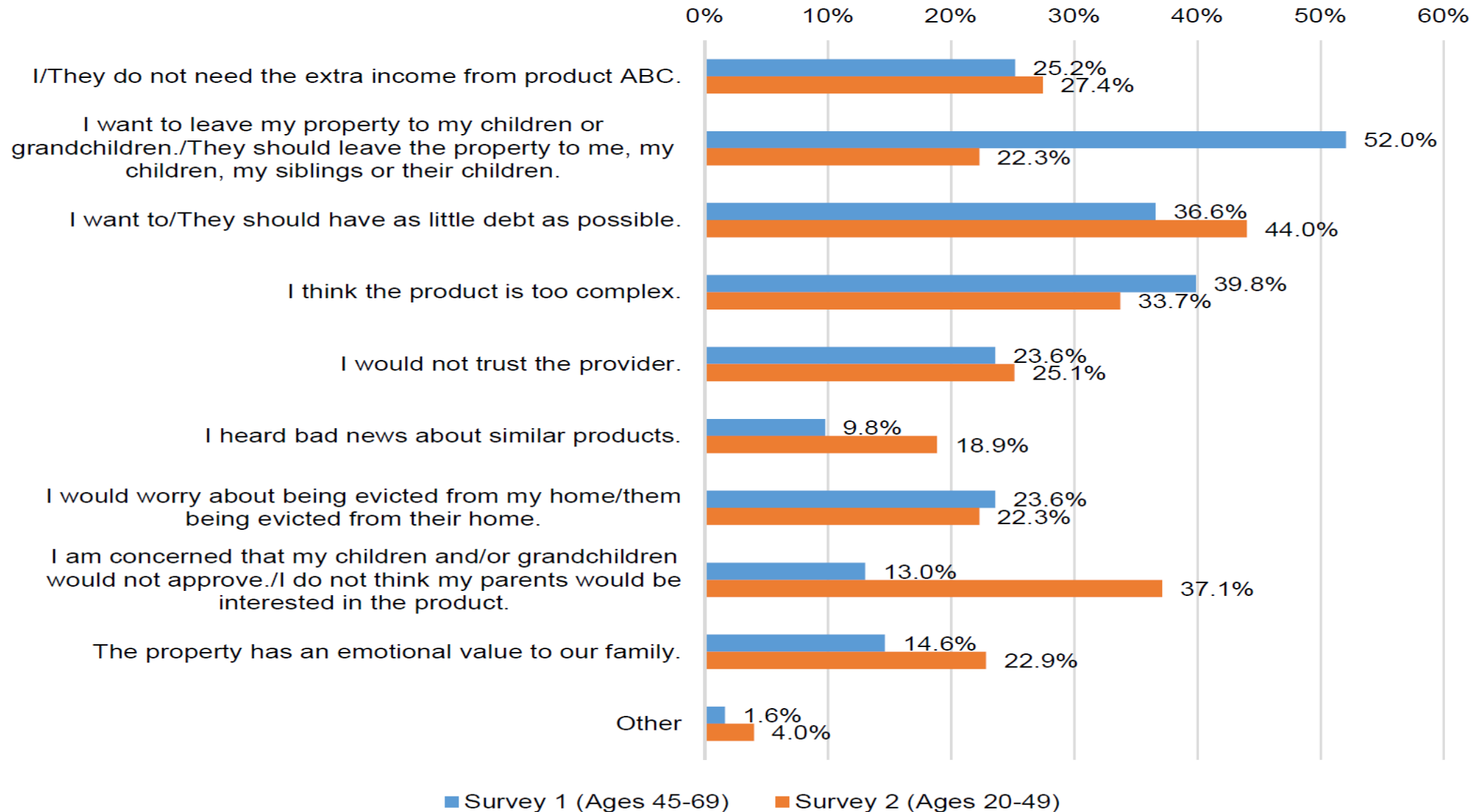
**Survey 2 (Ages 20-49):** How would you advise your parents to use the payments from product ABC? *Please allocate 100 points ....*



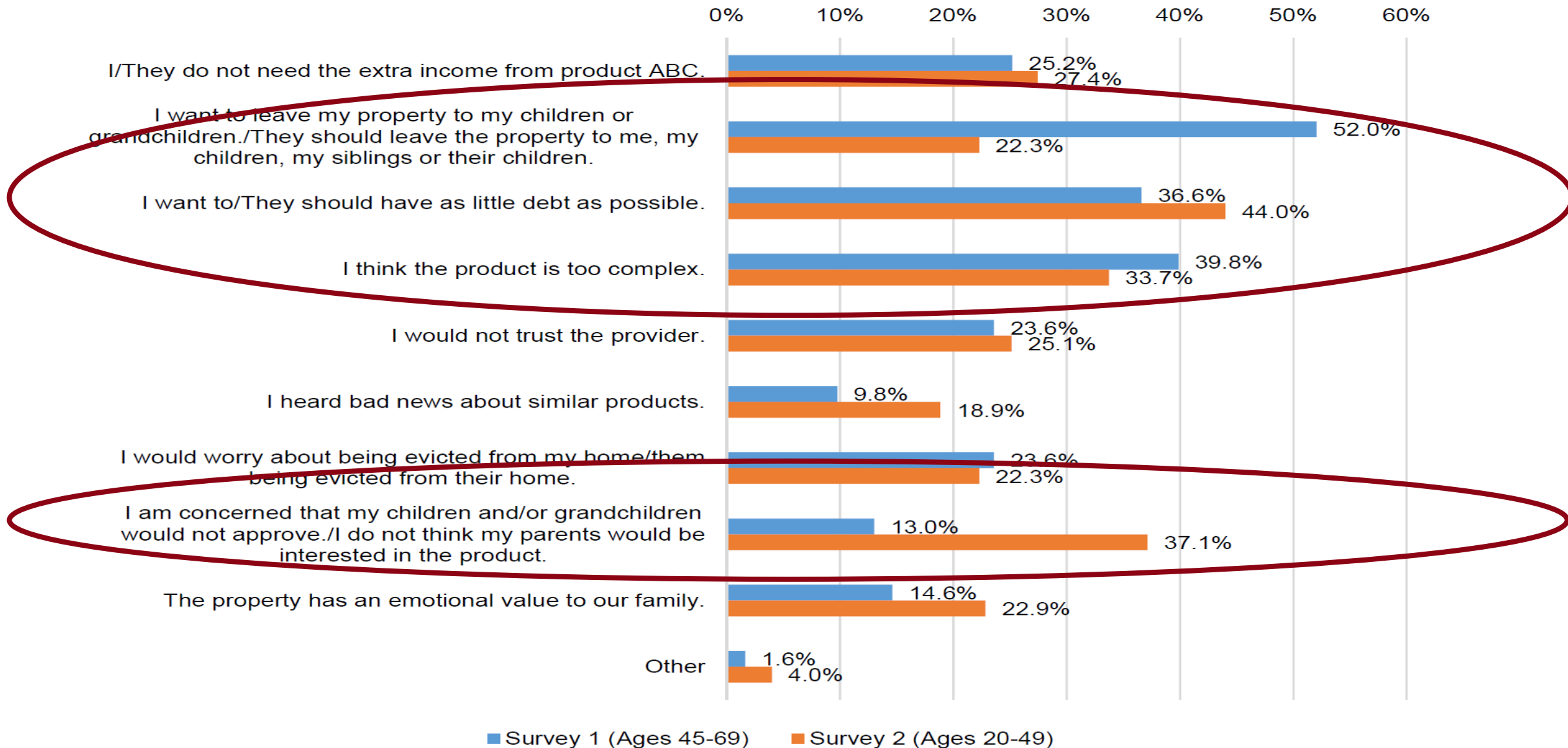
# What explains use of Reverse Mortgage payments by urban parents (aged 45-69)

- Older, educated, low household debt, low numeracy, daughter, health status below median → use Reverse Mortgage payments to 'live more comfortably in retirement'
- Male, educated, retired, risk averse, health status below median → use Reverse Mortgage payments to 'afford better health/aged care'
- Son, adult child in same household, expect informal care, bequest intention → use Reverse Mortgage payments to 'support children/grand children'

# Reasons for Reverse Mortgage rejection



# Reasons for Reverse Mortgage rejection





# Conclusions

- Interest in Reverse Mortgages is high among educated urban Chinese
  - 89% urban homeowners aged 45-69 ‘interested’
  - 84% urban aged 20-49 would recommend to urban homeowner parents
- Small impact of ‘use of product’ information framing
- Preferred uses of Reverse Mortgage payments
  - Live more comfortably in retirement
  - Pay for better medical treatment and aged care services
- Compared with current ‘Happy Life’ pilot product
  - More flexible
  - Less complex
  - Comprehensive but clear product information with worked example
  - Online survey set-up avoids distribution issues and forces engagement

Thankyou

# Australia-China Population Ageing Research Hub

- Website <http://cepar.edu.au/research-hubs.aspx>
- Based at the ARC Centre of Excellence in Population Ageing Research (CEPAR) at UNSW Sydney. Funded by UNSW Sydney
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