

Feeling Comfortable with a Mortgage: The Impact of Framing, Financial Literacy and Advice

Susan Thorp, Junhao Liu, Julie Agnew, Hazel Bateman, Christine Eckert, Fedor Iskhakov

USyd, College of William and Mary,
UNSW CEPAR, UTS, ANU





THE UNIVERSITY OF
SYDNEY

CRIICOS 00026A



ARTICLE

Feeling comfortable with a mortgage: The impact of framing, financial literacy and advice

Susan Thorp^{1,*} , Junhao Liu¹, Julie Agnew², Hazel Bateman³, Christine Eckert⁴ and Fedor Iskhakov⁵ 

¹The University of Sydney Business School, Sydney, NSW, Australia, ²The College of William and Mary, Williamsburg, VA, USA, ³UNSW Sydney and CEPAR, Sydney, NSW, Australia, ⁴University of Technology Sydney, Sydney, NSW, Australia and ⁵The Australian National University, Canberra, ACT, Australia

*Corresponding author. Email: susan.thorp@sydney.edu.au

(Received 10 November 2022; revised 22 February 2023; accepted 23 February 2023; first published online 28 April 2023)

Residential property loans are financially important...

Homes dominate household balance sheets:

- Around 65-70% home ownership (US, UK, and Aust.)
- Residential property 40% asset share (US, Aust.)
- Mortgages 70% debt share (US and Canada); 50% (Australia)

Repayments absorb income:

- Around 15% of disposable income (OECD median for owner-occupiers)

And the mortgage market is complex.

Many alternatives:

- Aust: 4000+ loans from 140 lenders

Many attributes:

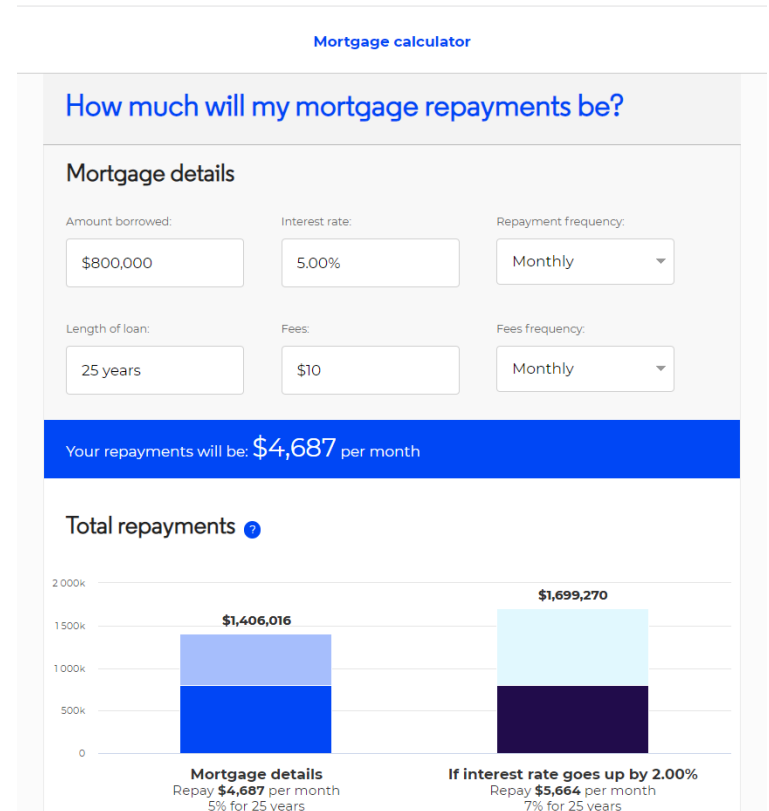
- Variable and fixed rates, interest only, principal and interest, equity redraw, ancillary features etc.



46% of borrowers are “not confident” in mortgage choice (ACCC 2020).

Choosing a suitable mortgage is difficult and consequential.

“Australia’s looming mortgage stress crisis... A quarter are thought to be in mortgage stress already...” The Guardian, Feb 11th



Research Questions

Q1: Does framing (lump sum or equivalent monthly **repayment**) affect borrowers' comfort with mortgage debts?

Q2: Do mortgage brokers affect borrowers' comfort with mortgage debts and the lump sum framing effect?

Psychological 'largeness' of lump sums versus payment streams: Perceived adequacy of lump sums vs. annuities

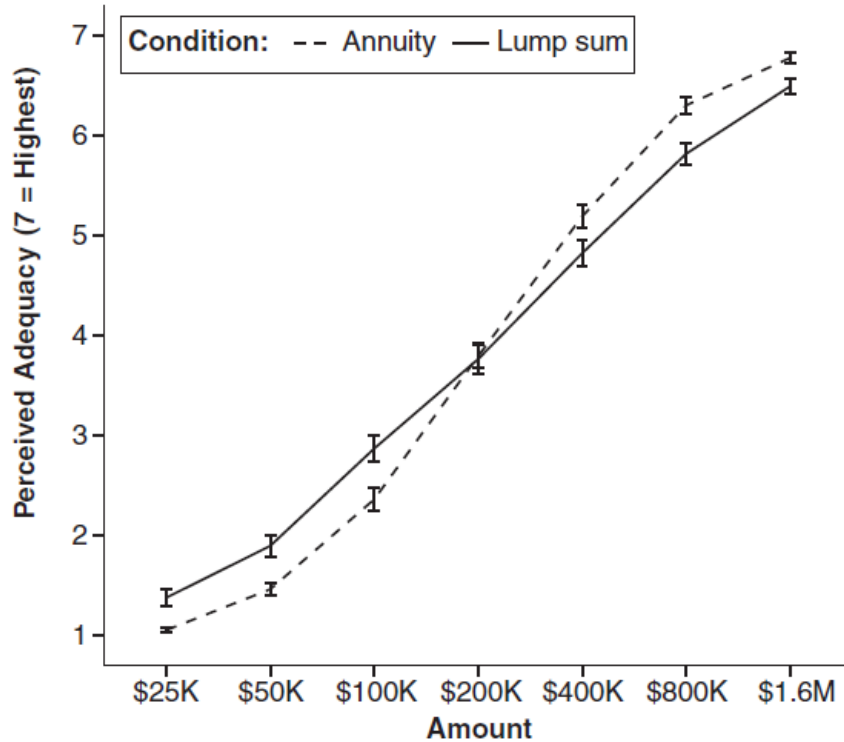


Figure 2, Goldstein et al 2016

We find psychological largeness for lump sum debt framing.



Red: monthly repayments
Green: Lump sums

Results: Higher average comfort with monthly repayments than equivalent lump sums

	Mean	Standard error	t-stat (equal means)
Total	3.411	2.329	
Framing: Repayments	3.466	0.033	
Framing: Lump sum	3.356	0.033	2.345**
No mortgage experience	3.334	0.056	
Mortgage experience	3.426	0.026	-1.491
Financial literacy (low)	3.655	0.032	
Financial literacy (high)	3.146	0.034	10.972***
Numeracy (low)	3.525	0.028	
Numeracy (high)	3.150	0.042	7.406***
Has not used mortgage broker	3.041	0.034	
Has used mortgage broker	3.692	0.031	-14.102***
Will not use mortgage broker	3.143	0.030	
Will use mortgage broker	3.758	0.036	-13.116***
Observations		10,000	

Borrowers consult mortgage brokers. Do they help?

- New mortgages from brokers: 65% Australia; 71% UK; 33% in US.
- Brokers educate, reduce search costs (Conklin 2017)
- Help inexperienced (ASIC 2019)
- Generate high satisfaction (Deloitte 2018)

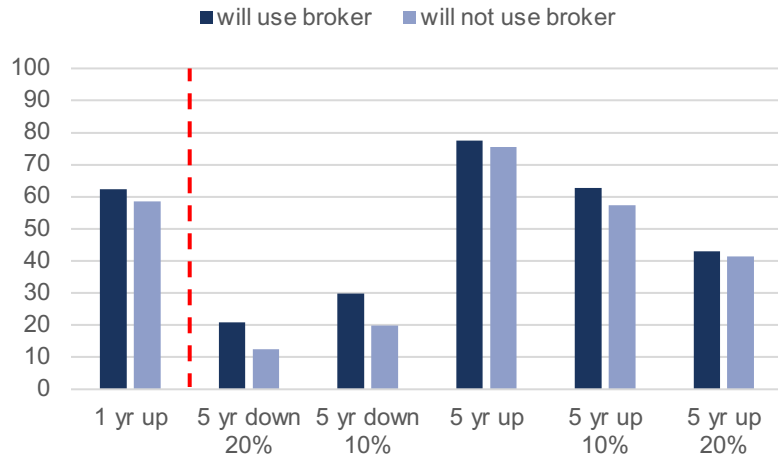


- Brokers recommend
 - more expensive, high fee products (LaCour-Little 2009; Woodward and Hall 2012; Robles-Garcia 2020 Ambrose 2021)
 - larger, longer, more levered loans (ASIC 2017)
- Use unclear fee structures (Deloitte 2016, ASIC 2017, 2019)
- Linked to higher default rates (Alexander et al. 2002; Elul et al. 2010, Jiang et al. 2014)

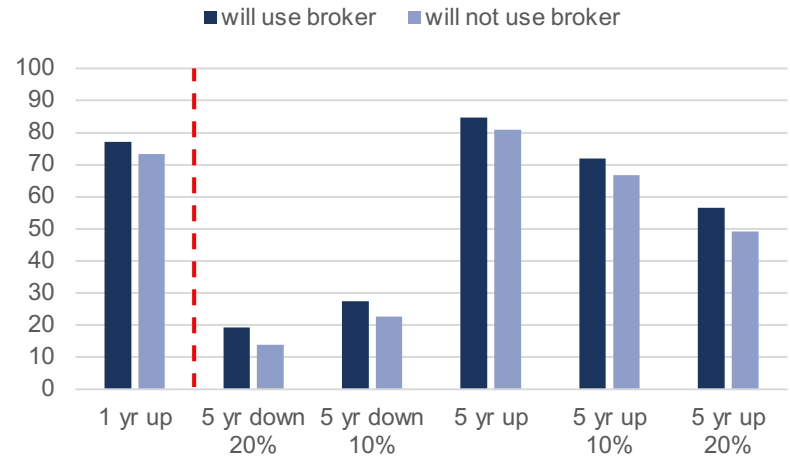
Those who intend to use brokers think house prices are riskier

By intention to use brokers in the future

Average expected probability of house price changes: have used broker



Average expected probability of house price changes: have not used broker



Higher average comfort when planning to consult, and after consulting, a broker.

	Mean	Standard error	t-stat (equal means)
Total	3.411	2.329	
Framing: Repayments	3.466	0.033	
Framing: Lump sum	3.356	0.033	2.345**
No mortgage experience	3.334	0.056	
Mortgage experience	3.426	0.026	-1.491
Financial literacy (low)	3.655	0.032	
Financial literacy (high)	3.146	0.034	10.972***
Numeracy (low)	3.525	0.028	
Numeracy (high)	3.150	0.042	7.406***
Has not used mortgage broker	3.041	0.034	
Has used mortgage broker	3.692	0.031	-14.102***
Will not use mortgage broker	3.143	0.030	
Will use mortgage broker	3.758	0.036	-13.116***
Observations		10,000	

Lower average comfort when financial literacy and numeracy are high.

	Mean	Standard error	t-stat (equal means)
Total	3.411	2.329	
Framing: Repayments	3.466	0.033	
Framing: Lump sum	3.356	0.033	2.345**
No mortgage experience	3.334	0.056	
Mortgage experience	3.426	0.026	-1.491
Financial literacy (low)	3.655	0.032	
Financial literacy (high)	3.146	0.034	10.972***
Numeracy (low)	3.525	0.028	
Numeracy (high)	3.150	0.042	7.406***
Has not used mortgage broker	3.041	0.034	
Has used mortgage broker	3.692	0.031	-14.102***
Will not use mortgage broker	3.143	0.030	
Will use mortgage broker	3.758	0.036	-13.116***
Observations		10,000	

Controlling for selection into broker usage:

Brokers make borrowers more comfortable.

Framing effect is less for financially literate and broker users.

Dependent variable: Comfort level (1–7 scale)	OLS (1)	OLS (2)	IV-GMM (3)	OLS (4)
Log(size)(de-meanded)	-1.590*** (0.021)	-1.590*** (0.019)	-1.590*** (0.02)	-1.580*** (0.03)
Increasing condition (de-meanded)	-0.335*** (0.038)	-0.344*** (0.034)	-0.312*** (0.039)	-0.394*** (0.054)
Lump sum (de-meanded)	-0.112*** (0.038)	-0.112*** (0.033)	-0.112*** (0.035)	-0.255*** (0.090)
Log(size) x Lump sum (both de-meanded)	0.040 (0.041)	0.040 (0.038)		-0.051 (0.059)
Monotonic responses (de-meanded)		-0.658*** (0.051)	-0.626*** (0.057)	-0.516*** (0.068)
Mortgage experience (de-meanded)		0.126** (0.058)	-0.424 (0.330)	-0.020 (0.095)
Financial literacy (de-meanded)		-0.392*** (0.039)	-0.463*** (0.059)	-0.502*** (0.063)
Numeracy (mean-centered)		-0.171*** (0.040)	-0.190*** (0.043)	-0.386*** (0.064)
Used mortgage broker (de-meanded)		0.263*** (0.037)	1.406** (0.677)	
Have and will use broker (de-meanded)				0.199** (0.083)
Mortgage experience x Lump sum		-0.373*** (0.090)		-0.408*** (0.156)
Financial literacy x Lump sum		0.185** (0.074)		0.114 (0.113)
Numeracy x Lump sum		-0.189** (0.077)		-0.138 (0.119)
Used broker x Lump sum		0.163** (0.069)		
Have and will use broker x Lump sum				0.279* (0.156)

Framing, financial literacy and advice matter to attitudes to home loans.



Borrowers are **less comfortable with lump sums** than repayment streams.

- Lump sums are psychologically “large”;
- Mortgage calculators emphasize repayments.



Financially literate borrowers are generally **less comfortable with mortgage debt and less influenced by framing.**



Mortgage brokers make clients **more comfortable with debt and less influenced by framing.**

- Larger debts mean higher broker fees;
- Perceptions of house price risk drive broker use.