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

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ARTICLE

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

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## 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



How much will my mortgage repayments be?							
Mortgage detai	ls						
Amount borrowed:	Interest rate:	Repayment frequency	c				
\$800,000	5.00%	Monthly	•				
Length of loan:	Fees:	Fees frequency:					
25 years	\$10	Monthly	-				
Your repayments will	be: <b>\$4,687</b> per month						
Total repayment							
Total repayment	ts 👩	\$1,699,270					
Total repayment							
Total repayment	ts 👩						

# **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?

## We collect subjective comfort ratings for loans in two frames.

Perceived comfort with a given debt amount from \$200,000 to \$2,979,000 (<u>10</u> <u>levels</u>), framed as lump sums or monthly repayments (within- and between-subject variations) Sample 999 past, current or intending home loan borrowers)

#### Suppose

- you are buying a new house and taking out a new residential mortgage;
- this is the only residential mortgage you have;
- the loan must be fully repaid after 25 years;
- a 20% deposit has already been paid.

We will show you different total debt amounts for this mortgage. Please indicate how comfortable you would be with the given total mortgage debt amount. Please remember there are no right or wrong answers; these questions are only about your mortgage preferences.

#### Scenario 1 of 10

Suppose your total mortgage debt is **\$200,000** and you do not have to borrow any more beyond this amount. Please rate how **comfortable or uncomfortable** you would be with a total debt of **\$200,000**.

Very uncomfortable	Uncomfortable	Slightly uncomfortable	Neither comfortable nor uncomfortable	Slightly comfortable	Comfortable	Very comfortable
$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$

# Perceived comfort with a given debt amount from \$200,000 to \$2,979,000 (<u>10</u> <u>levels</u>), framed as lump sums or monthly repayments (within- and between-subject variations)

Suppose

- you are buying a new house and taking out a new residential mortgage;
- this is the only residential mortgage you have;
- the loan must be fully repaid after 25 years;
- a 20% deposit has already been paid.

We will show you different monthly debt repayments for this mortgage. Please indicate how comfortable you would be with the given monthly mortgage debt repayment. Please remember there are no right or wrong answers; these questions are only about your mortgage preferences.

#### Scenario 1 of 10

Suppose your total monthly repayment is **\$950** and you do not have to repay any more beyond this amount. Please rate how **comfortable or uncomfortable** you would be with a monthly repayment of **\$950**.

Very uncomfortable	Uncomfortable	Slightly uncomfortable	Neither comfortable nor uncomfortable	Slightly comfortable	Comfortable	Very comfortable
$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$

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

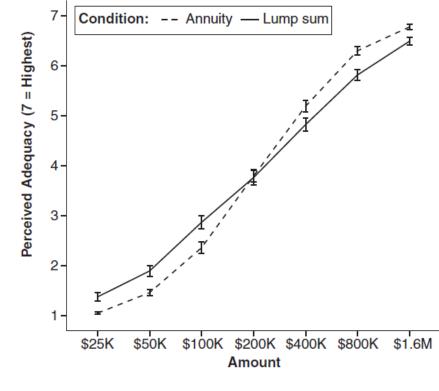
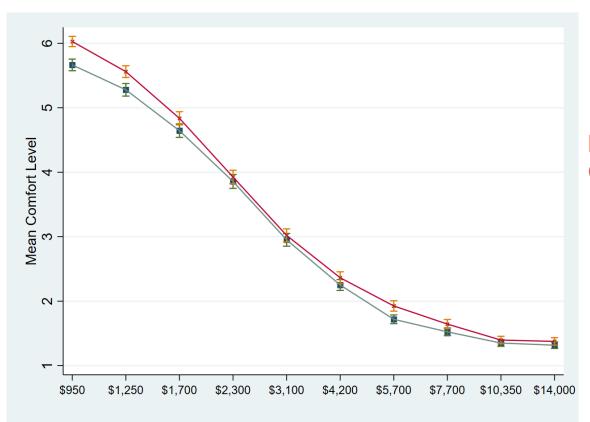


Figure 2, Goldstein et al 2016

#### 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	2.345**
Framing: Lump sum	3.356	0.033	
No mortgage experience	3.334	0.056	-1.491
Mortgage experience	3.426	0.026	
Financial literacy (low)	3.655	0.032	10.972***
Financial literacy (high)	3.146	0.034	
Numeracy (low)	3.525	0.028	7.406***
Numeracy (high)	3.150	0.042	
Has not used mortgage broker	3.041	0.034	-14.102***
Has used mortgage broker	3.692	0.031	
Will not use mortgage broker	3.143	0.030	-13.116***
Will use mortgage broker	3.758	0.036	
Observations		10,0	00

# 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

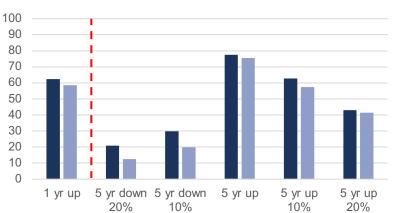
### •more expensive, high fee

- 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

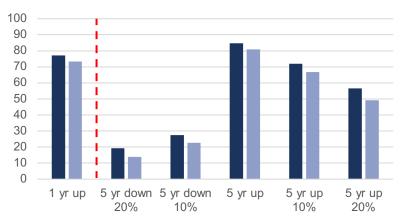
Average expected probability of house price changes: have used broker



#### ■ will use broker ■ will not use broker

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

will use broker will not use broker



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

	Mean	Standard error	t-stat (equal means)
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Observations		10,0	00

# Lower average comfort when financial literacy and numeracy are high.

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Will use mortgage broker	3.758	0.036	
Observations		10,0	00

### Controlling for selection into broker usage:

Brokers make borrowers more comfortable.

Framing effect is less for financially literate and broker users.

The University of Sydney

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