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Subjectivity in Mortgage Choice Decisions
A UK Study

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Subjectivity and Irrationality

- The irrationality of a thing is no argument against its existence, rather a condition of it.
- Friedrich Nietzsche

Issues of Mortgage Choice and (Perceived) House Values

- Currently a lack of research
- Lack of use of UK data
- Limited direct date – what we have here are high quality research files

The Importance of Mortgage Choice

- Mortgage choice
- (drives)
- Interest rate
- Financial features
- (drives)
- Household welfare
- Household financial stability
- (drives)
- National aggregated macro-economic health

And so…

- Our key question is –

- What drives mortgage choice?

- Economic fundamentals (obviously, a given)
- But what else?
- The role of subjective factors

The Importance of House Values (perceived by owners/ households)

- House values
- (drives)
- Household wealth
- Household liquidity
- (drives)
- Macro-economic stability

And so…

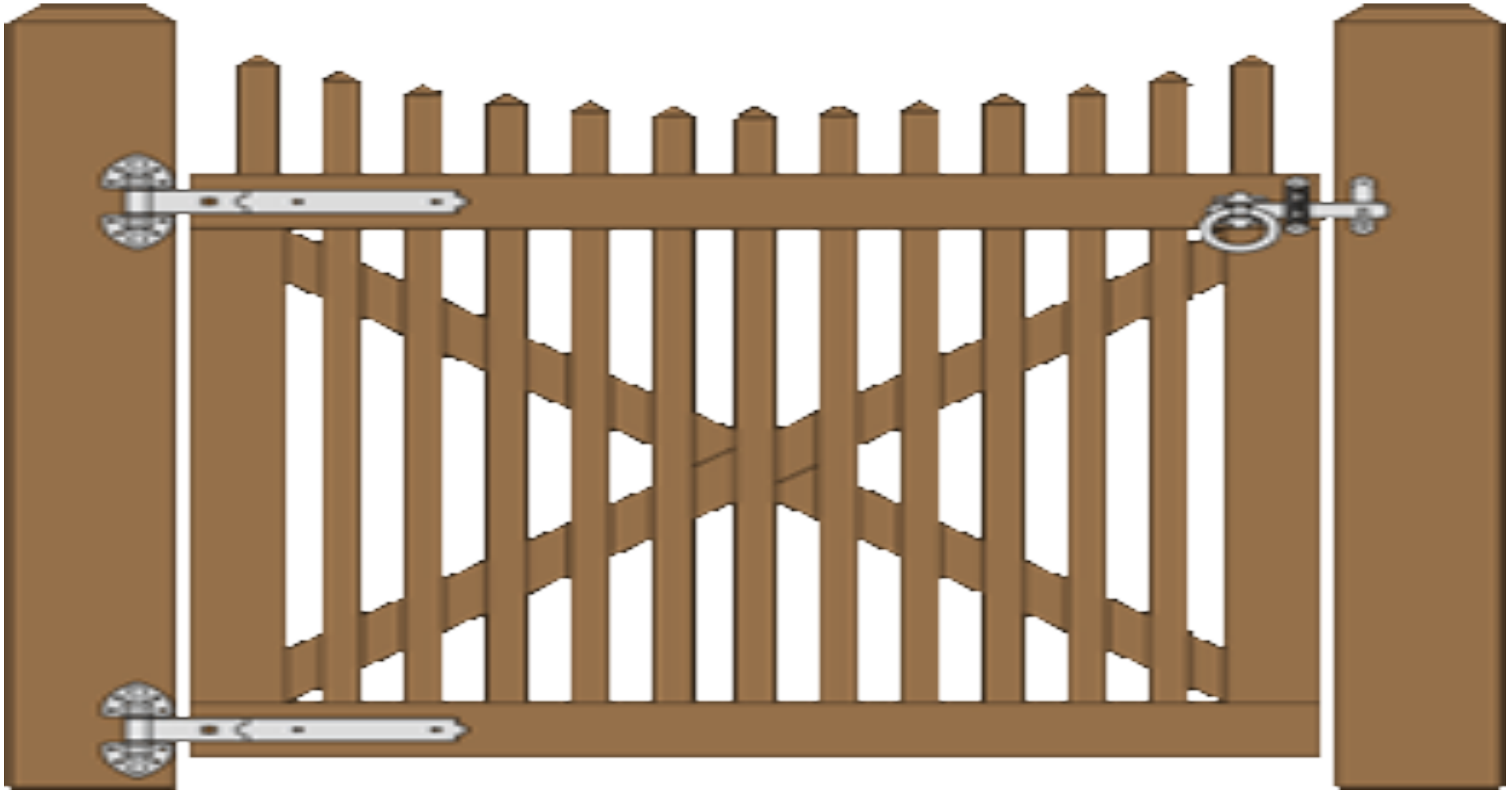
- Key question is –

- What drives house values?

- By which we mean, the perception of the value of their home by householders
- Because it is this that drives the household viewpoint

- (Again, we are looking here beyond rational expectations)

House Prices



- House Prices
- (control access to…)
- Benefits of Owner Occupation
- (especially)
- Living Standards
- Quality of Life
- Higher social status (culturally, a UK social stigma to rent)

What we find…

- Inequality
- (specifically)
- Financial Illiterate
- (evidence)
- Sub-optimal, variable rate mortgages
- More risk
- & Larger loan (to buy a larger house)
- & Weaker liquidity position
- Over-optimism about their future wealth
- (and)
- Mis-value (their) house prices, over-estimating wealth
- (leading to…)

Calamity!

- Least secure are taking the greatest risks
- And are feeling richer
- (Leading to…)
- Brits Behaving Badly
- (ie)
- Spend too much
- Save too little
- Generating over-response to stimuli (be they boom/ bust)
- And are, thus, a core danger to the wider economic system

The Data

- Understanding Society Survey (USS) database, the extended version of the British Household Panel Survey (BHPS)
- Introduced in 2009, designed to be a panel of approximately 30,000 households and around 50,000 individuals, representing British residents at multiple time points
- Data samples incorporate both household and individual level data files
- To connect information between waves, files are linked by the cross-wave personal identifier, allowing observation of changes in the variables of interest
- Four cross-sectional samples of mortgage holders were drawn from the USS for waves 1-4 in order to explore subjective influences in mortgage choice decisions, covering the period 2010-2014

Shortcomings in the Data

- Does not record mortgage type
  - So, we track mortgage payments and compare these to (changes in) the BoE rate
- No interest rate given
  - But published data on the rates is readily available
- Only new loans, not remortgages
  - But this allows us to be sure that we can calculate the original LTV

Formal Model

Formal Model: A system of the two reduced form simultaneous equations and one separate equation

$$Y_{1i} = \delta_1 Y_{2i} + \beta_1 X_{1i} + \varepsilon_{1i} \quad (1)$$

$$Y_{2i} = \delta_2 Y_{1i} + \beta_2 X_{2i} + \varepsilon_{2i} \quad (2)$$

$$P_i (Y_2=1|X_i) = \Phi(\Sigma b_i k_i X_{K(i)}) \quad (3)$$

Estimation: *2SLS, 3SLS and Endogeneous Probit*

Instrumental Variables: *House Price to Income Ratio, Mortgage Affordability Rates, LTVs and LIR.*

$$Y_{3i} = \alpha_3 + \beta_3 X_{3i} + \varepsilon_{3i} \quad (4)$$

Estimation: *2SLS and 3 SLS*

Instrumental Variables: *Real Interest Rates, Average House Prices.*

Some Key Statistics

	2010	2011	2012	2013	2014
Own.-Oc. Rate	70.1	67.9	66.7	64.6	63.1
Real HH Income Growth	0.6	-2.0	2.6	-0.7	-0.2
St. Variable Rate	3.962	4.081	4.224	4.372	4.450
Fixed for 2 years	3.778	3.350	3.555	2.707	2.457
V/F Differentials	0.184	0.731	0.669	1.665	1.993
St. Var. Margins	3.399	3.404	3.605	3.905	3.981
Fixed Margins	2.278	1.465	2.545	1.882	1.422
VR Balances	64.47	68.67	71.88	70.30	77.46
FR Balances	35.53	31.33	28.12	29.70	22.54

Description

- Owner occupier rates are in decline
  - This is a generally ‘bad’ thing
- Real household disposable income is falling
  - So, people cannot afford to buy
  - Yet employment rates are high
- Difference between variable and fixed rates is increasing
  - Variable rates ever more expensive, meaning that there is greater differential inequality
  - And profitability is also diverging, encouraging profit maximising banks into specific selling behaviour

Table 6. *Subjective Property Value Equation*

		2 SLS		3 SLS
Variable	Coefficient	t-value	Coefficient	t- value
Having Problems paying mortgage	-0.612***	-2.476	--0.598***	-2.352
Having Financial Job	-0.487***	-5.786	-0.456***	-5.298
Financial expectations for better	0.367***	3.256	0.349***	3.153
Having Highest Education	-2.5982***	-5.675	-2.456	-5.376
Constant	-1.786***	-6.513	-1.546***	-6.331
R^2		0.468		0.445
F-statistics		184.96		

Description

- Subjectivity is reduced by one's own experiences – eg having faced difficulties with repayments
- And with education – eg HE or a job in financial services

- Perceived house values increase with expectations of financial improvement. A form of myopia seems to take hold.

Conclusions

- Despite the importance of this area, there is limited UK research, and even less based on defensible data
- Mortgage choice is not just a matter of personal choice, but can seriously impede both personal wealth and have major impacts on macro-economic health
- It is tempting to propose regulation to curb the behaviour of banks in pushing variable rate mortgages, offering greater LTVs on them
- But regulation of a 'free' market is always problematic, and there are questions over its efficacy
- Educated consumers make better choices, and so greater financial literacy programmes are indicated.
- But how to implement meaningful knowledge is problematic
- Compulsory disclosure of more detailed information is evidently needed to allow for greater transarency