DISCUSSION OF:

#### "THE SUPPLY SIDE OF HOUSING FINANCE"

Foà, Gambacorta, Guiso and Mistrulli (2015)

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#### **Overview**

¶ Test for biased financial advice in choice between ARM and FRM

- ¶ Relative prices of ARM vs FRM strongly affect choice of type of mortgage (similar to Koijen, Van Hemert, and Van Nieuwerburgh, 2009)...
- ¶... but <u>bank characteristics also matter</u> => advice has influence
- ¶ Stronger effect for unsophisticated investors and when there are frictions to adjusting prices
  ¶ Effects are economically large
- ¶ Nice paper
  - ¶ I believe the link between bank characteristics and mortgage choice
  - ¶ Comments are mostly about interpretation and the link to advice

# Theory and setting

- ¶Relative cost of FRM and ARM should be the only variable driving the choice between contract type
  - ¶ Differences in banks' production function for the two types of loans should be reflected in the relative price
- ¶If households are naïve, banks may offer biased advice and direct consumers to one type of mortgage
  - ¶ Biased advice has reputation costs
- ¶Data on terms of loans and characteristics of the households ¶1.6 million mortgages, 175 banks, 7 year period

# Trend in Italy



# Types of interest rates as a % of gross lending in Belgium



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1. Other events that may influence timing of the "break"?

¶Barsani decree (end of 2006, early 2007)

¶ Eliminated prepayment penalties

¶ Dramatically increased substitute mortgages – allows for stronger competition between banks

¶ Biggest impact probably happens too late to explain the shift

¶Any others that suggest alternative mechanisms?
¶More context might be helpful

### Relative price and mortgage choice

		LTFP= FRM risk premium (1)				
Long Term Financial Premium (LTFP)		-0.307***	-0.348***	-0.346***	-0.342***	
Mortgage size (log)		(0.029)	(0.027)	(0.027) -0.044***	(0.026) -0.044***	
				(0.007)	(0.007)	
Joint Mortgage				0.006* (0.003)	0.007** (0.003)	
Italian				0.065***	0.050***	
Cohabitation				(0.009) 0.004***	(0.009) -0.001	
				(0.002)	(0.001)	
Age (in years)				-0.0001 (0.0002)	-0.0004* (0.0002)	
Female				0.012***	0.011***	
				(0.002)	(0.002)	
Bank fixed effects (BFE)	yes	yes	yes	yes	yes	
Time fixed effects (TFE)	no	no	yes	yes	yes	
Province fixed effects (PFE)	no	no	no	no	yes	
Other controls (3)	no	no	no	no	yes	

¶Unobserved characteristics unlikely to matter much

¶Endogenous (dynamic) sorting of customers and banks also unlikely to be a concern (and authors test carefully for this)

# Bank supply factors

Dependent variable is the linear probability that the borrower chooses a FRM	(1) Baseline model including bank supply factors	(II) Sample of banks with bond spread always observed	(III) Adding non- linear terms for LTFP	(1∨) Including time*province fixed effects	(V) Banks operating in all provinces	-
LTFP (1)	-0.354***	-0.354***	-0.477***	-0.280***	-0.404***	
LTFP <sup>2</sup>	(0.024)	(0.026)	(0.040) -0.012 (0.010)	(0.021)	(0.026)	
LTFP <sup>3</sup>			0.027*** (0.005)			
Bank bond spread (2)	-0.026*	-0.028*	-0.028*	-0.027*	-0.026*	
	(0.015)	(0.017)	(0.017)	(0.015)	(0.017)	Can correlation
Securitization activity (3)	0.140***	0.151***	0.126***	0.132***	0.223***	of securitization
	(0.027)	(0.038)	(0.024)	(0.030)	(0.038)	and (relative)
Deposit ratio % (4)	0.006***	0.007***	0.006***	0.005***	0.009***	impact of the
	(0.002)	(0.002)	(0.002)	(0.001)	(0.002)	crisis on banks
Bank fixed effects (BFE)	yes	yes	yes	yes	yes	explain some of
Time fixed effects (TFE)	yes	yes	yes	no	yes	this correlation?
Borrowers' Charact. (BC)	yes	yes	yes	yes	yes	
Province fixed effects (PFE) and control for bank competition (5)	yes	yes	yes	no	yes	
Other controls (6)	yes	yes	yes	yes	yes	
Time*Province fixed effects	no	no	no	yes	no	

# 2. Advice vs unobserved incentives

¶Does the FRM risk premium <u>fully</u> absorb the relative cost faced by the customer

¶ Do banks offer other benefits that we cannot observe?

¶ More attractive terms on accounts, insurance products?

¶If biased advice is supposed to be interpreted as a residual, this does not matter.

¶ If not, more direct evidence is necessary

# 3. Inaction and sophistication

- Interaction of inaction with bond spread seems to indicate substitution: banks either adjust prices or do something else As before, this could be advice. It could also be incentives that have economic value (or advertising)
- ¶Sample selection for sophistication results is very aggressive
  - ¶ Top and bottom 2% (go from 1.6M observations to 56k).
  - ¶ Top and bottom 10%, 20% would seem more natural. Even splitting at the median?
  - ¶ Proxy is not great (loan size -> wealth -> sophistication) but it helps to pin down the mechanism.

# Other empirical / interpretation issues

¶"First stage", i.e. show that relative price is affected by supply factors

¶Advertising seems indistinguishable from advice, and would lead largely to the same predictions

¶ Would not need sorting as argued in Section 5.4

¶ Largely a semantic difference rather than a substantive one