Two Facts about Mortgage Design

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FRB Boston

FRBNY Mortgage Design Conference
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These views expressed are those of the authors and do not necessarily reflect those of any entities within the Federal Reserve System.

ARM Payment shocks were *not* the problem

- Since 2007, we have argued that resets of adjustable rate rate mortgages.
    - were not causing most defaults.
    - and would not be a major problem.
- Large national sample of loans on which lender initiated foreclosure.
    - Completely consistent with National Delinquency Survey

		2007	2008	2009	2010	All
Prior to delinquency spell that led to foreclosure...						
% of loans with...	Payment increase	12%	17%	11%	9%	12%
	Payment reduction	0%	0%	4%	8%	4%
	No change since orig.	88%	82%	85%	83%	84%
FRM share		38%	48%	62%	74%	59%
ARMs prior to reset		44%	32%	20%	15%	24%
ARMs that reset but payment stayed the same or fell		6%	2%	7%	2%	5%
# obs in thous.		374	641	874	756	2,646

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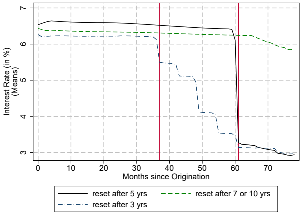
Effect of payment cuts on delinquency



Interest Rates

- Andreas Fuster and I (Fuster and Willen, 2012) looked at the performance of Alt-A Hybrid ARMs
- Payments fixed for five years started resetting down – 50 percent payment reductions in 2010/2011
- Compared to a sample of loans with fixed rates for 7+ years
  - Went from 50% more likely to default in month 59
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- Equivalent to having 35% lower LTV.

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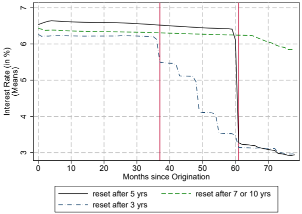

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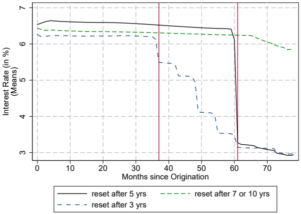

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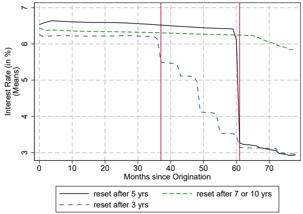

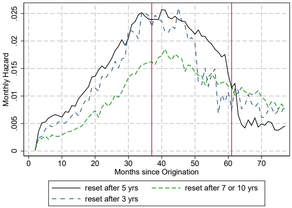

Interest Rates | Delinquency Hazard

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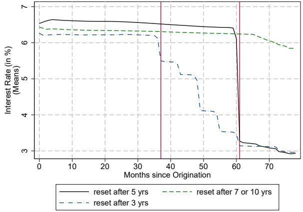

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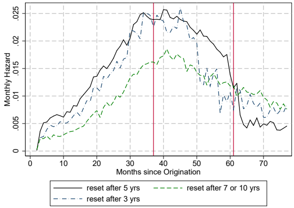

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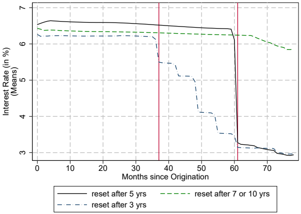

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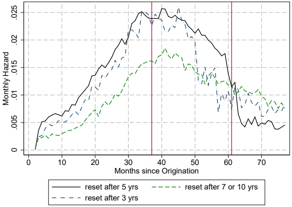

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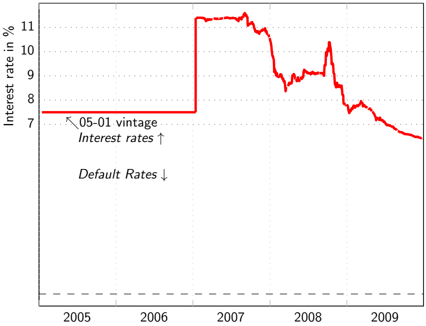

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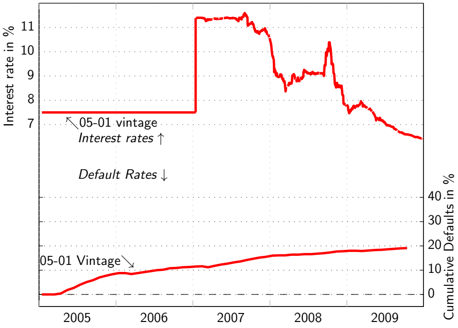

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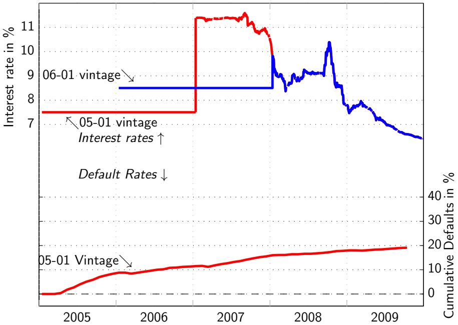

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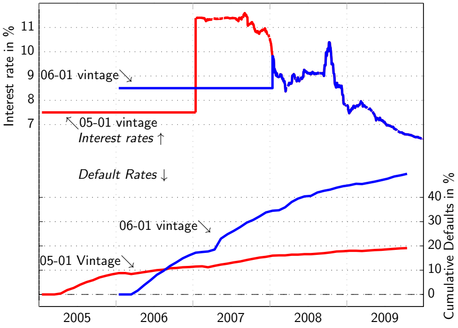

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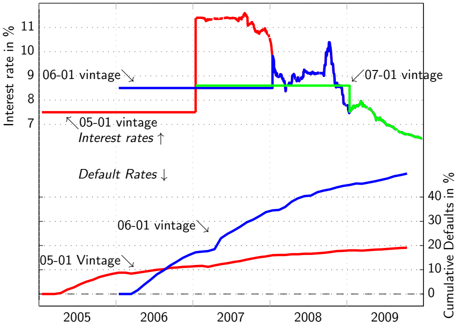

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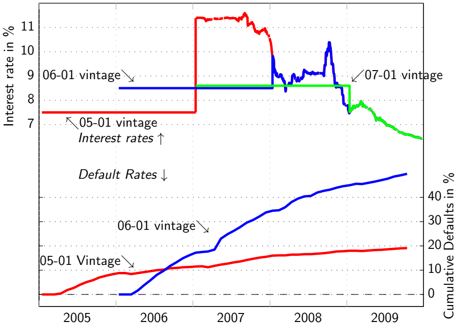

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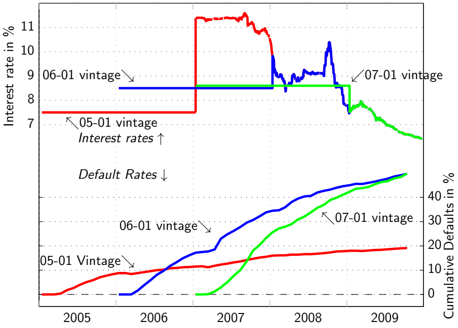

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A Popular Story

- The market couldn't come up with the long-term FRM. It took smart people in the government to figure it out.

> "Until [the depression], mortgages were not fully amortized, as they are now..., but were balloon instruments in which the principal was not amortized, or only partially amortized at maturity, leaving the debtor with the problem of refinancing the balance."
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> –Fabozzi and Modigliani, 1992

> "Today most mortgages are amortized... Until the 1930s most mortgages, however, were of the "balloon-note" type. Typically these were short-term mortgages for three or five years, and borrowers made only interest payments until the loan came due."
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> –*Real Estate Finance Law*, a legal textbook.

> "Before the Roosevelt era, virtually all mortgages were short term loans of five years or less, typically interest-only, with the principal due and payable at the end. If the homeowner could not roll over the loan, he lost the house. As foreclosures skyrocketed, the New Deal invented the modern, long-term, self-amortizing mortgage."
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- The market invented the amortizing fixed rate mortgage. The government forced everyone to use it.

	Mutual svgs banks	Life Insurers	Savings and Loans	Commercial Banks	Individuals and Other
By type of loan (1925-1929)					
Fully Amortized		14.3	94.6	10.1	
Partially Amortized		61.5	0	38.3	
Non-amortized		24.1	5.1	50.3	
Percentage of market (1929)	10.5	11.8	40.3	12.1	25.2
As % of dollar value of all loans					

Source: Grebler, Blank and Winnick (1956).

- Federal law *prohibited* national banks from making long-term mortgages.
- Interesting sociological question. Credulous?
  - Wide reporting non-existence of FRM < 1930.
  - No data ever shown.

> "At various points in this volume, caution has been expressed in regard to the widespread notion that the period from the twenties to the forties marked a complete change from unamortized to amortized residential mortgages. The evidence does not support such a simplified statement."
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	Mutual svgs banks	Life Insurers	Savings and Loans	Commercial Banks	Individuals and Other
By type of loan (1925-1929)					
Fully Amortized		14.3	94.6	10.1	
Partially Amortized		61.5	0	38.3	
Non-amortized		24.1	5.1	50.3	
Percentage of market (1929)	10.5	11.8	40.3	12.1	25.2
As % of dollar value of all loans					

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The products were not the problem

- Suppose subprime lenders had done fully amortized fixed rate mortgages instead of the "complex products."
- What would have happened?
- Easy to find out because subprime lenders originated *lots* of plain vanilla, fully amortized, fixed rate mortgages.
- Would history have been different?
  - Maybe. Hard to separate selection and treatment.
  - But not very different.

	All Subprime		Subprime FRMs			Subprime 2/28s		
	# of orig. in thou.	P(default)	# of orig. in thou.	Share in %	P(default)	# of orig. in thou.	Share in %	P(default)
2005	529	41.9	198	37.3	37.1	332	62.7	44.8
2006	504	55.9	258	51.2	50.7	246	48.8	61.4
2007	246	55.9	208	84.5	53.8	38	15.5	66.8
Total	1278	50.1	663	51.9	47.6	615	48.1	52.8

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