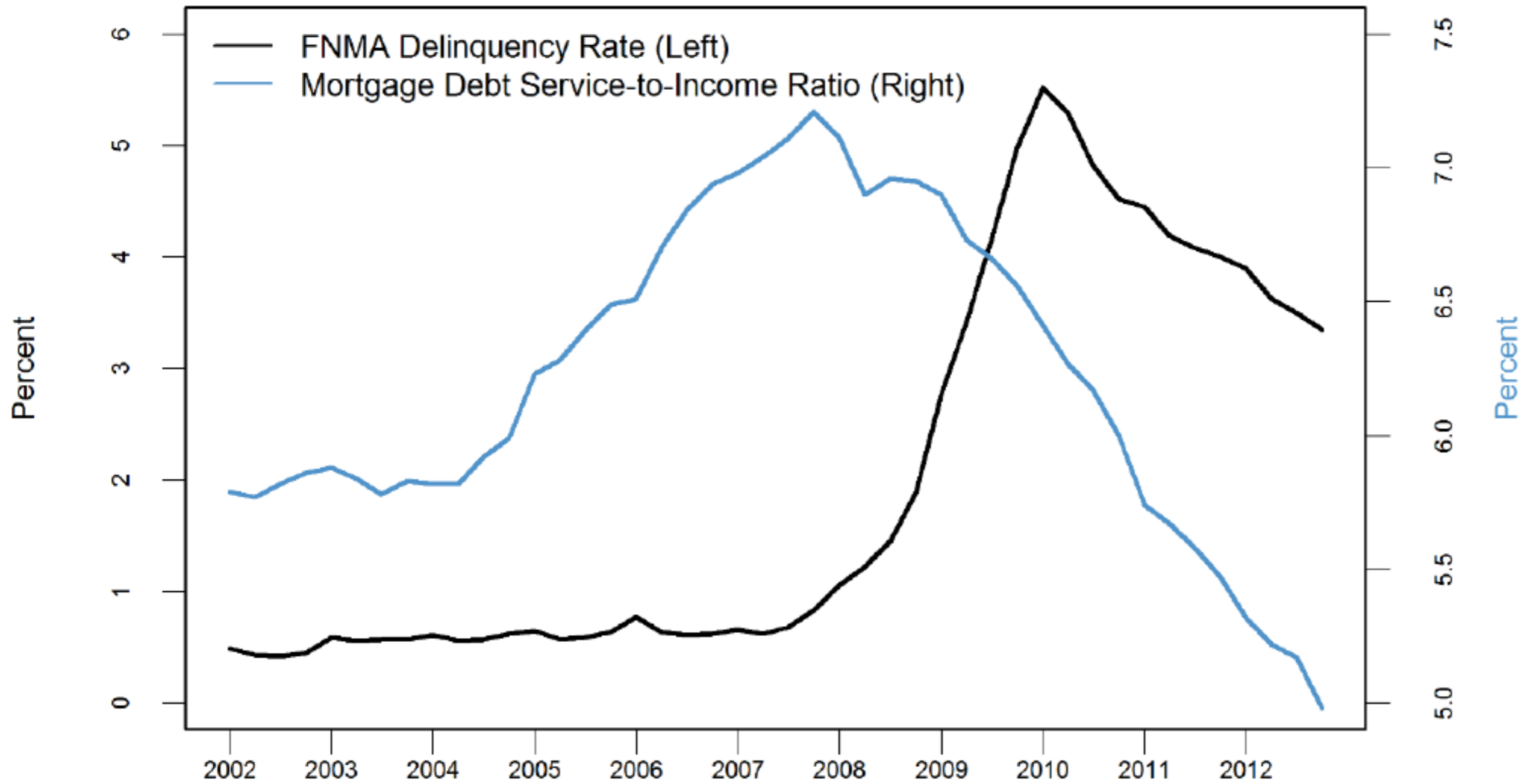


Two views of the crisis

Household deleveraging

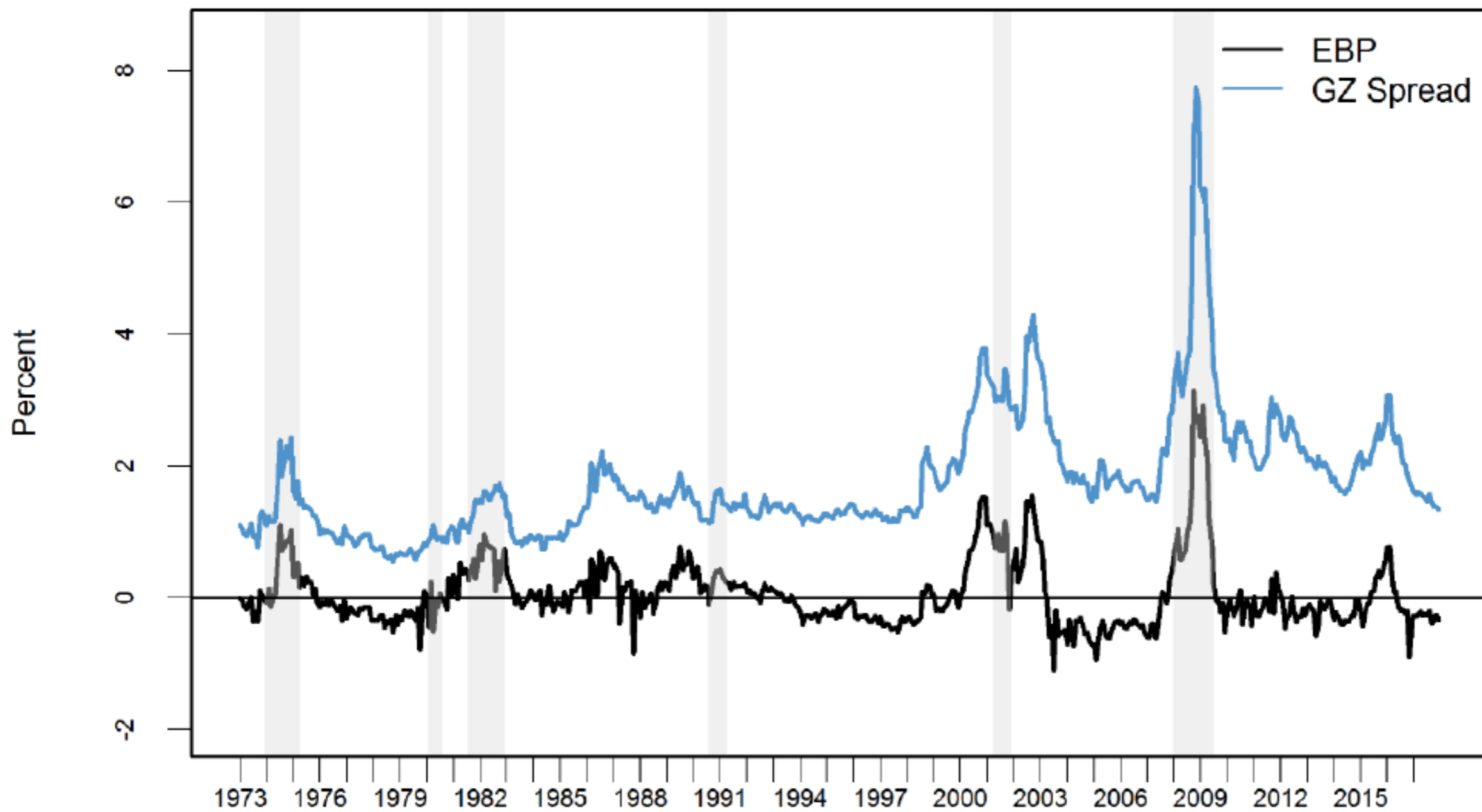
- Household debt increased in the 2000s
- Why? Low interest rates, lax credit standards, overoptimistic expectations of house appreciations [also interesting to distinguish these stories]
- Starting in 2006 house prices start to go down, making it harder to use home refinancing to raise cash
- Combination of wealth effects and lower collateral values led to drop in consumption



Household deleveraging

Role of credit supply

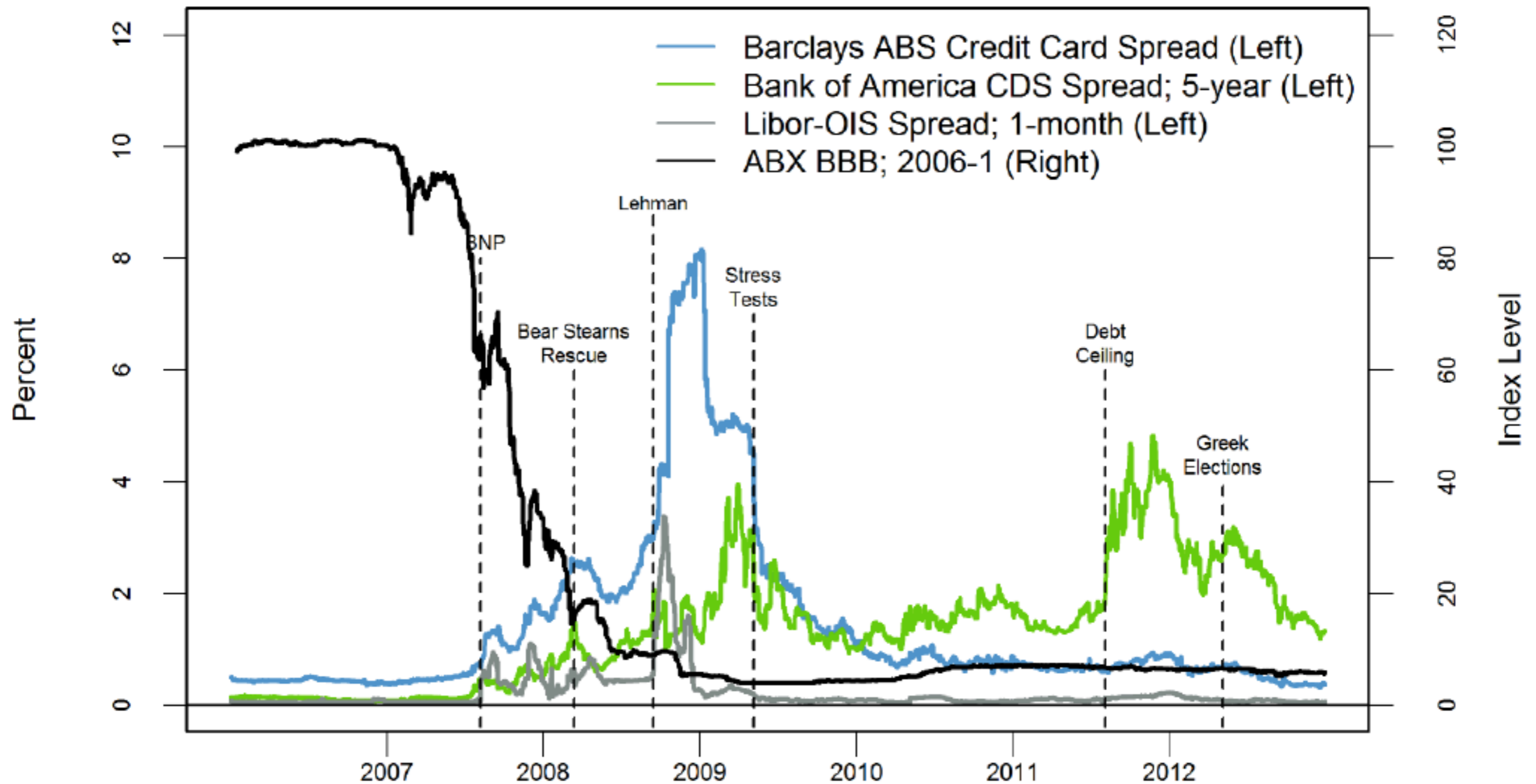
- Bernanke 2019
- Balance sheets of some entities are impaired
- This reduces the flow of credit to the economy
- Both borrowers directly affected and reduce demand for credit and lenders (banks) affected and reduce supply of credit
- Summary measure: external finance premium
- If you have \$1 of internal funds they yield x
- Yield on comparable, safe, liquid asset traded is y
- EFP is $x-y$



Measures of external finance premium

Stages of financial crisis

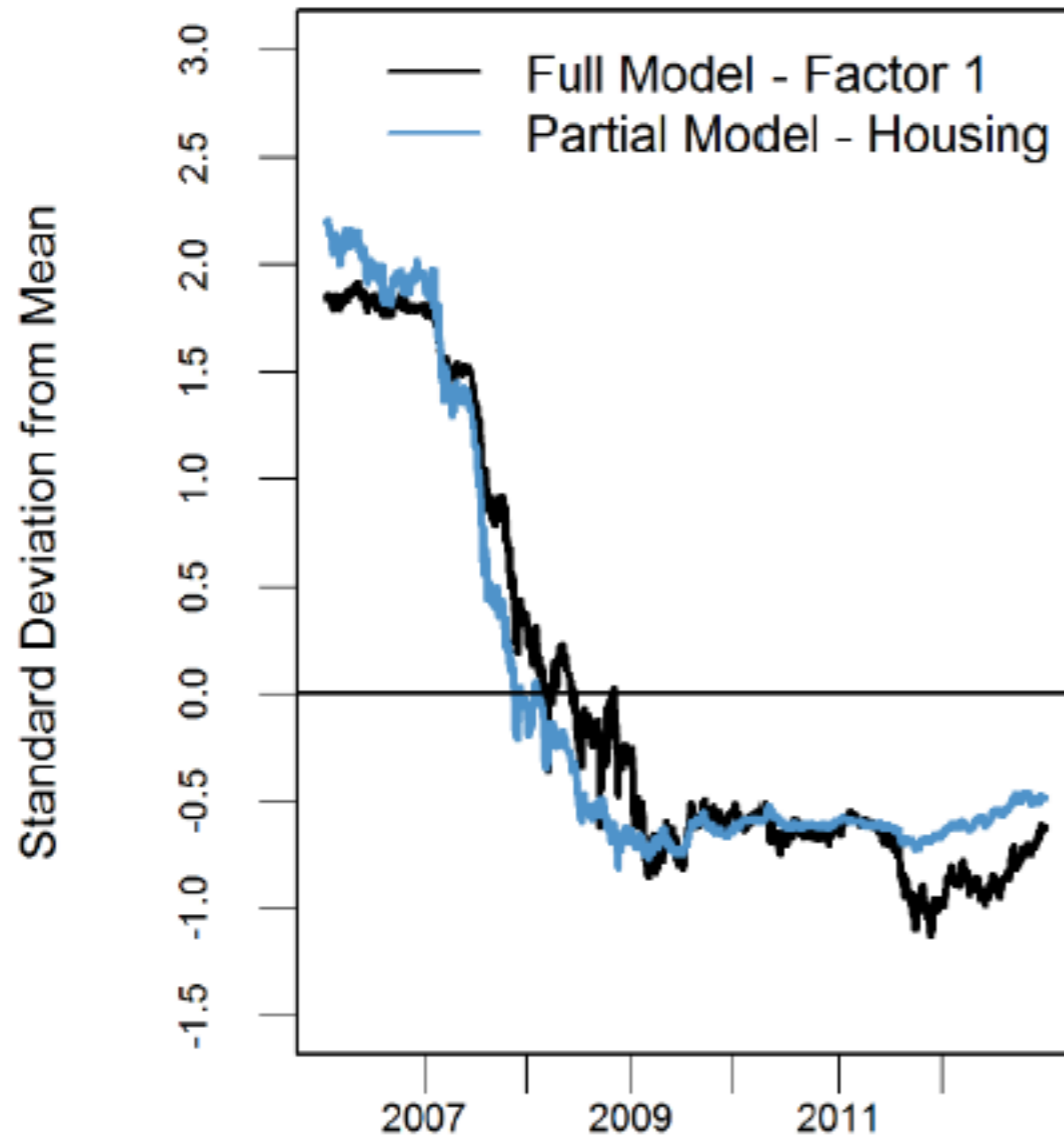
- Stage 1: bad news from housing and subprime markets
- Stage 2: difficulty of funding (borrowing short term) for banks
- Stage 3: contagion to non-mortgage credit, pullback from securitized assets, runs
- Stage 4: capital losses at banks, need to recapitalize



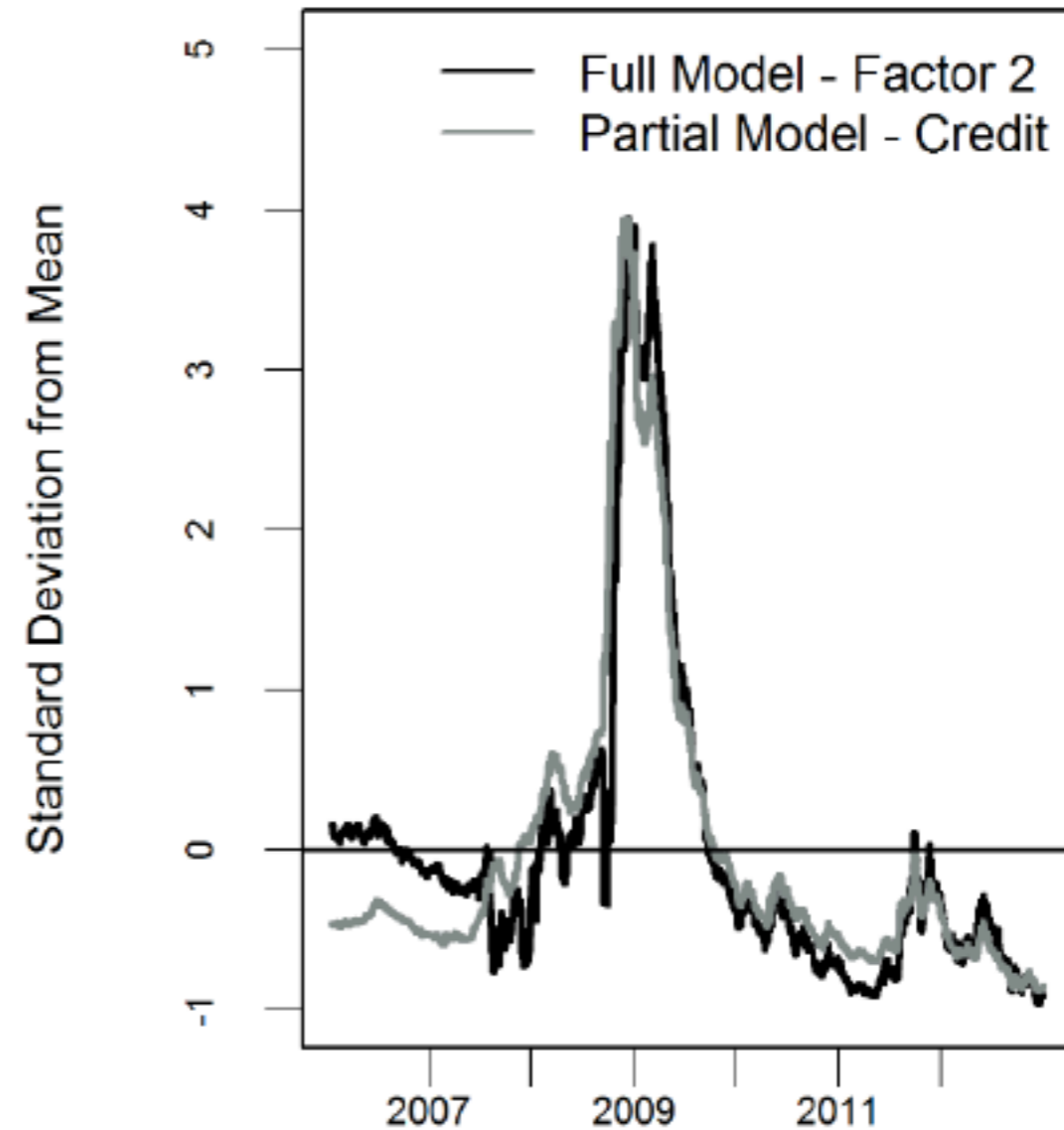
Four stages of the crisis

Factor analysis

Factor 1 and the Housing Factor

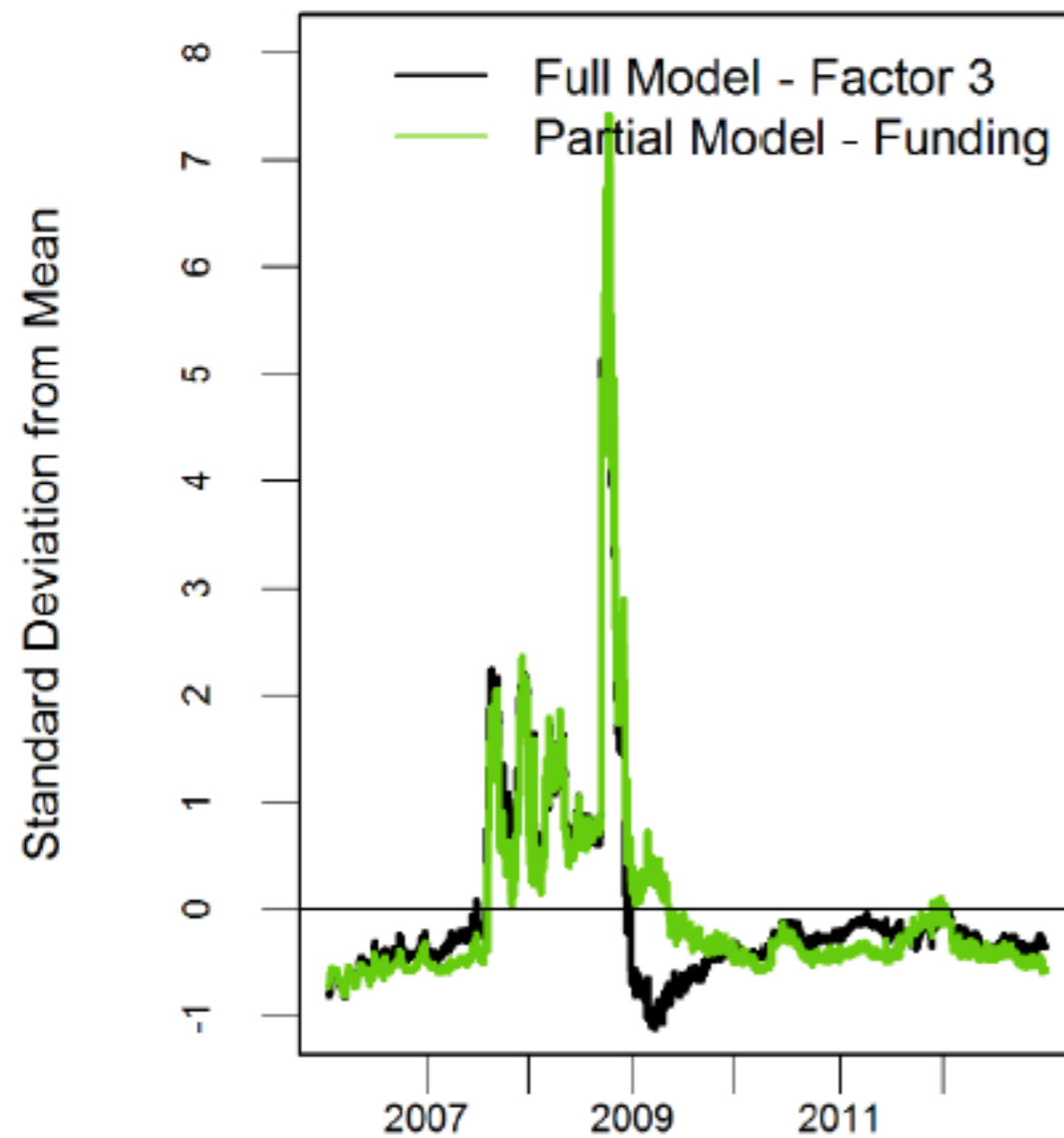


Factor 2 and the Non-Mortgage Credit Factor

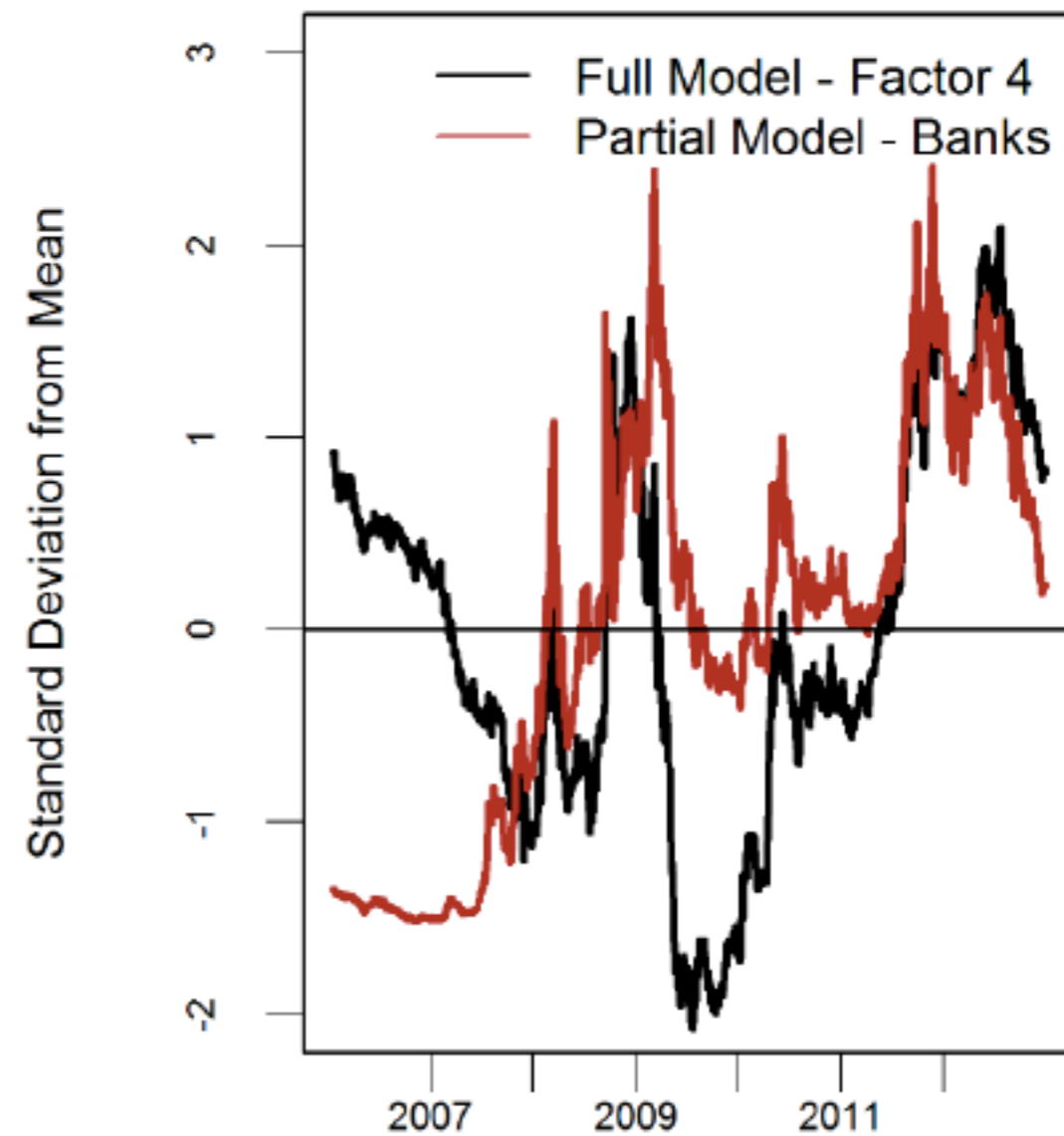


Factor analysis (continued)

Factor 3 and the Short-Term Funding Factor



Factor 4 and the Bank Solvency Factor



The credit factor

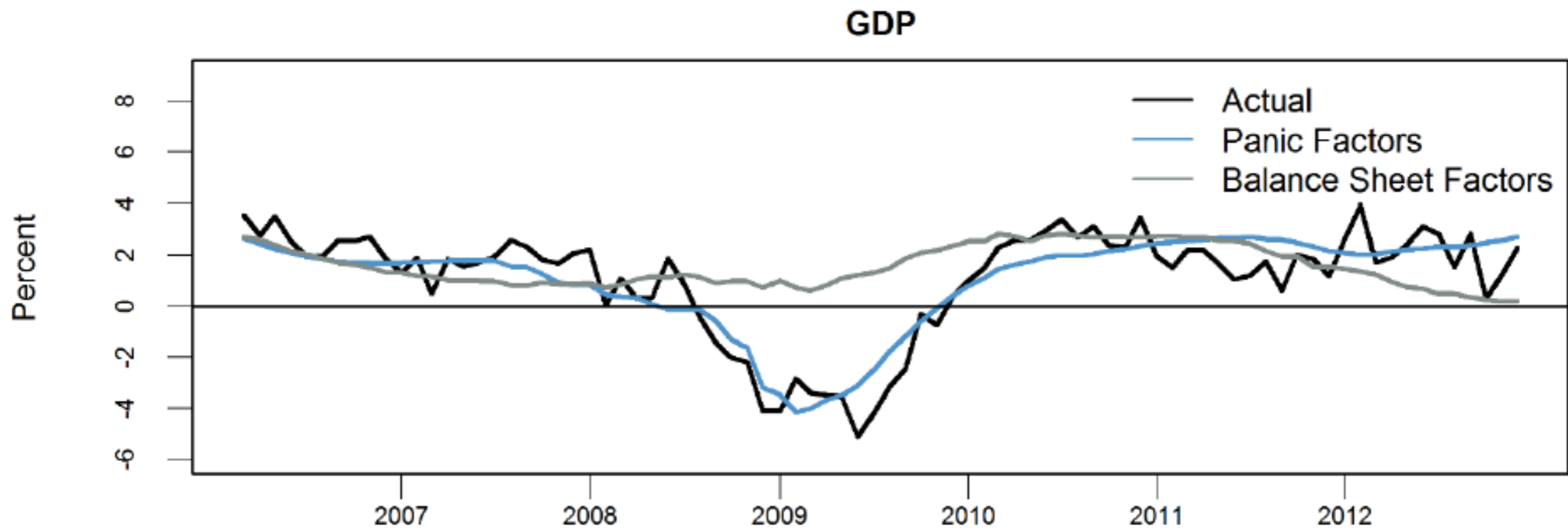
- Important open issue
- How to interpret credit factor?
- Recession -> weak balance sheets for households and firms -> high spreads on credit to households and firms
- Important to argue that factor reflects forces coming from weak intermediation/credit supply

Real effects

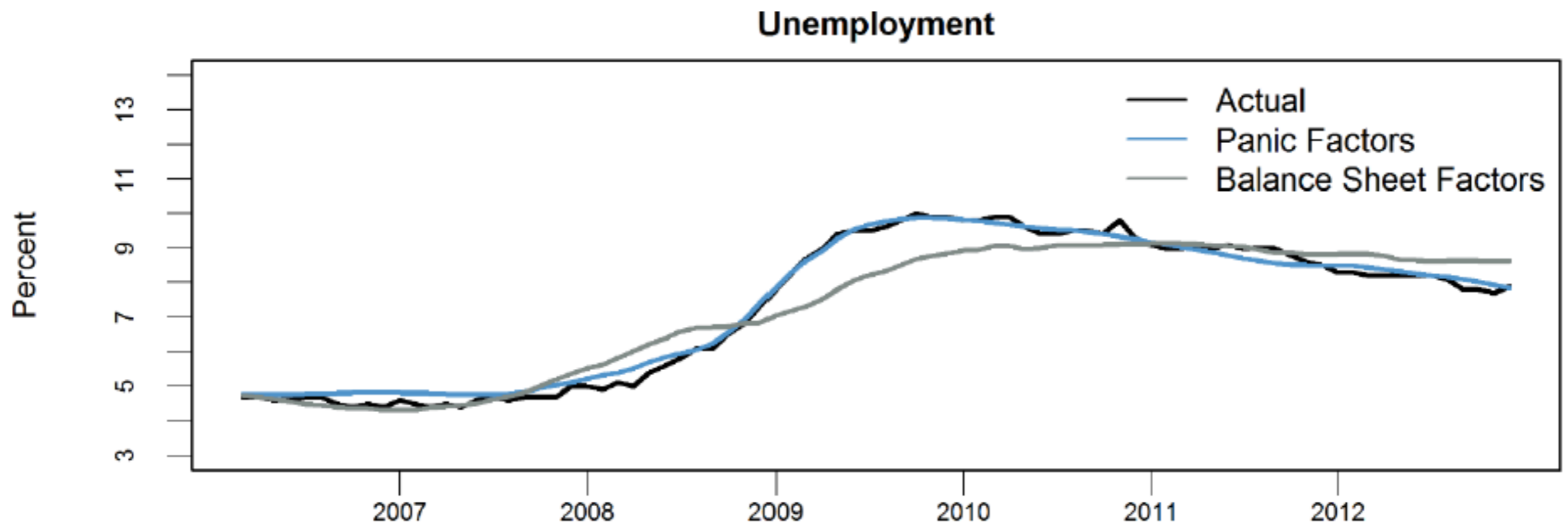
Table 2. F-Statistics for Inclusion of Each Factor in Prediction Equations²¹

Forecasted variable	Factor 1 (Housing)	Factor 2 (Credit)	Factor 3 (Funding)	Factor 4 (Banks)
GDP	0.06	4.89***	3.27**	0.63
Industrial Production	0.40	7.06***	4.87***	1.50
Employment Ex Construction	1.29	9.61***	2.52*	0.61
Unemployment	1.60	11.33***	2.56*	1.26

Real effects (continued)



Real effects (continued)



Open issues

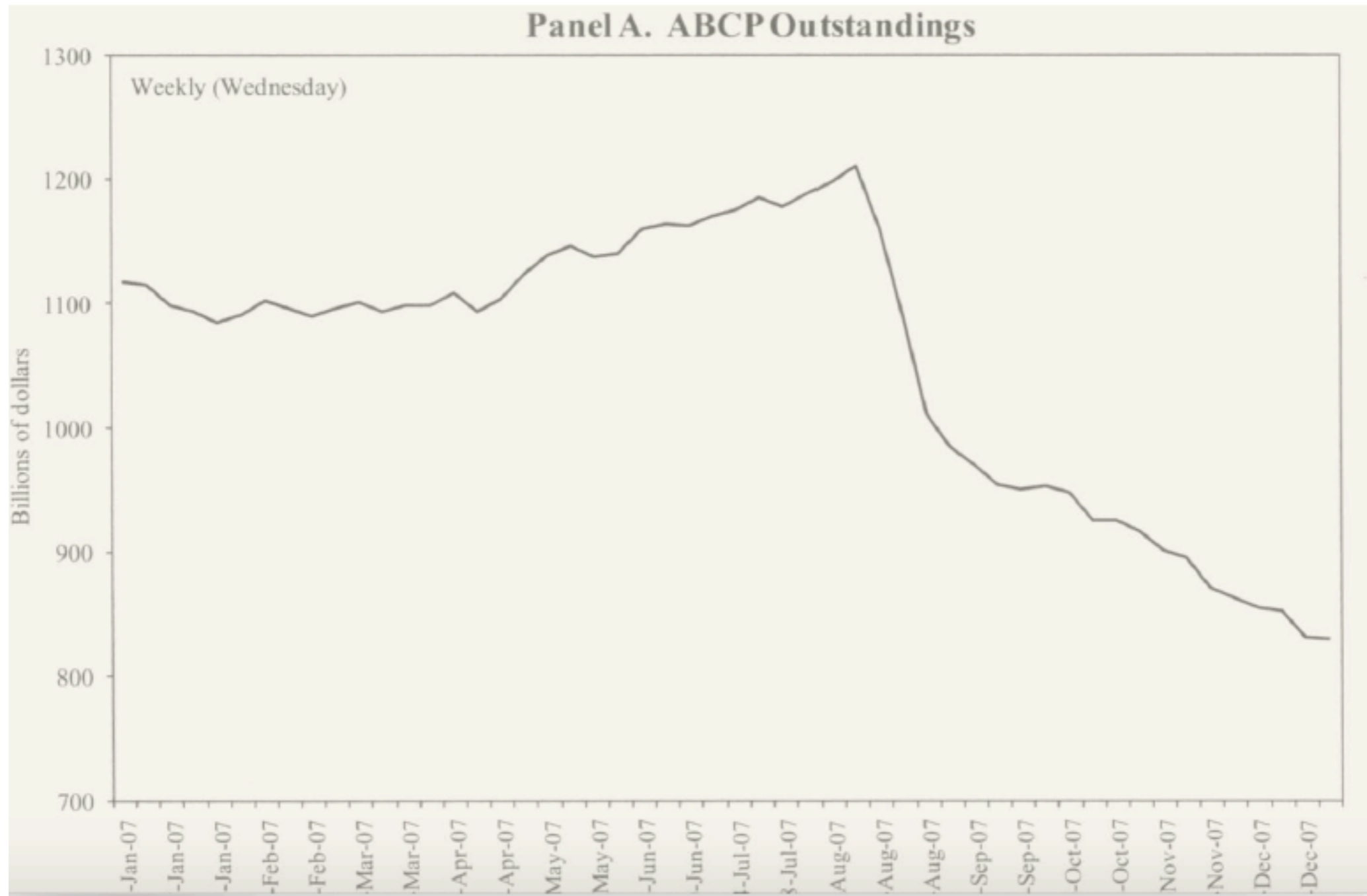
- Panic factors seem to explain well acute phase of recession
- But weak recovery seems better explained by slow deleveraging
- How do “fast” and “slow” forces interact in crises?
 - Slow forces cause buildup of fragility that exposes economy to panic event
 - Slow forces mean that after acute event economy takes time to recover

- Additional readings:
- Krugman
 - <https://www.nytimes.com/2018/09/14/opinion/the-credit-crunch-and-the-great-recession-wonkish.html>
- Baker
 - <http://cepr.net/images/stories/reports/housing-bubble-2018-09.pdf>

What is a run?

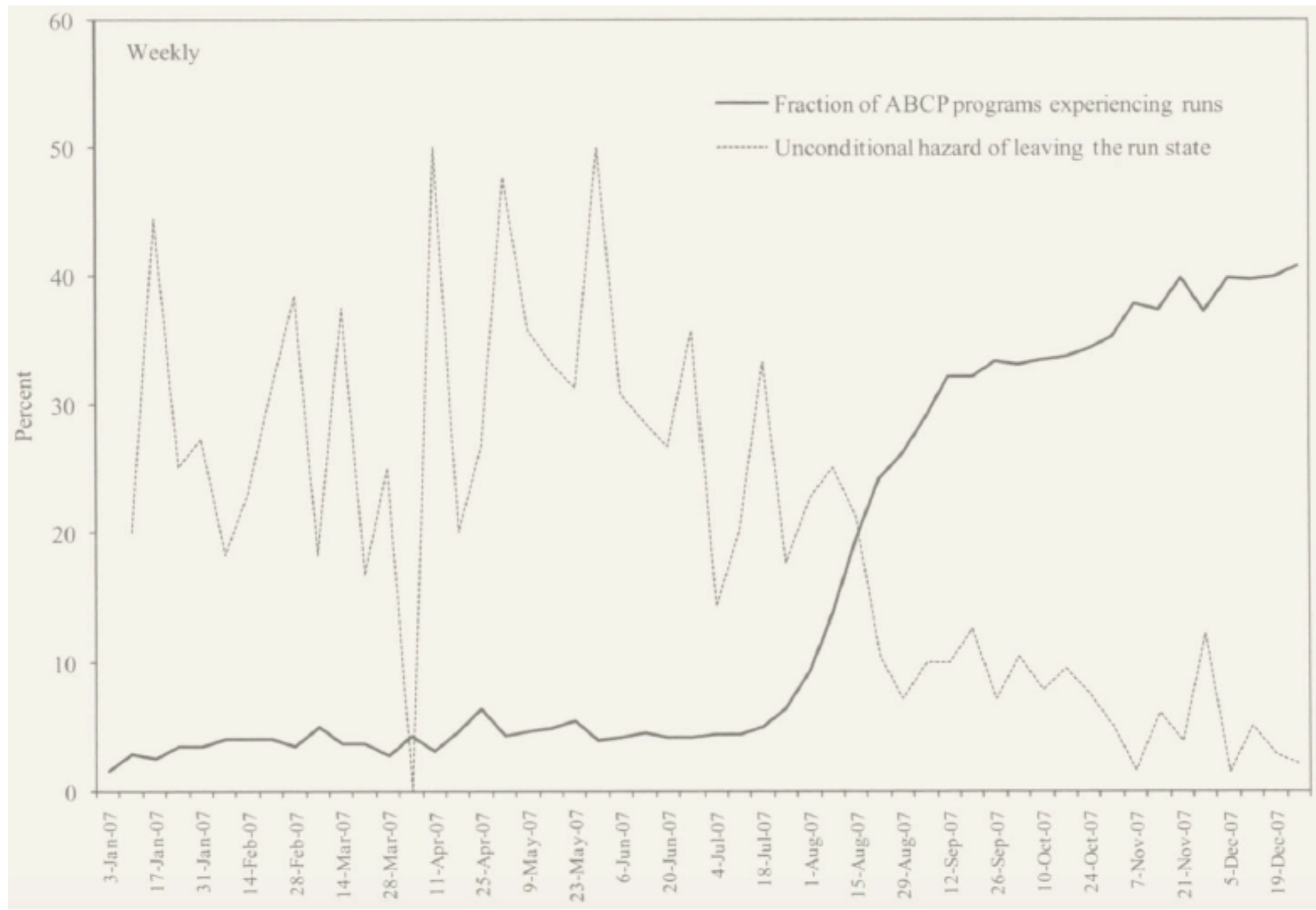
- Covitz, Liang, Suarez (JEF 2013)
- Anatomy of runs, focusing on Asset Backed Commercial Paper programs
- Entities with simple balance sheet:
 - assets: some portfolio of asset backed securities
 - liabilities short-term commercial paper

Collapse in ABCP issuance



- Why did they stop issuing?
- What is a “run”?
- ABCP rely on rollovers, when CP matures new CP is issued
- But investors may not trust the value of the assets in the event of a liquidation, so refuse to rollover
- Run: “new issuances = 0 in a week in which more than 10% of outstanding paper is maturing”
- When that happens ABCP can receive liquidity support from one or more bank, or can, in some cases, extend the maturity of the paper already issued

Runs on ABCP



Fragility

- Some characteristic of the program make it more exposed
- E.g.: weakness of bank providing liquidity backstop

		February– July 2007 (1)	February– July 2007 (2)	August– December 2007 (3)	August– December 2007 (4)
Program characteristics	Extendibility	– 0.010 (0.028)	– 0.009 (0.028)	0.462*** (0.116)	0.467*** (0.116)
	Number of liquidity providers	– 0.022** (0.010)	– 0.022** (0.010)	– 0.008 (0.007)	– 0.008 (0.007)
	CDS spread of main liquidity provider	0.236* (0.131)	0.273 (0.167)	0.359*** (0.119)	0.277** (0.117)
	Lower rating dropped (perf. pred.)		dropped (perf. pred.)	0.345*** (0.118)	0.345*** (0.121)
	Credit support	0.010 (0.030)	0.009 (0.029)	0.092 (0.121)	0.094 (0.122)
	Initial average maturity of outstandings	– 0.001 (0.001)	– 0.001 (0.001)	0.001 (0.002)	0.001 (0.002)