

# Discussion of: Household Credit and Employment in the Great Recession

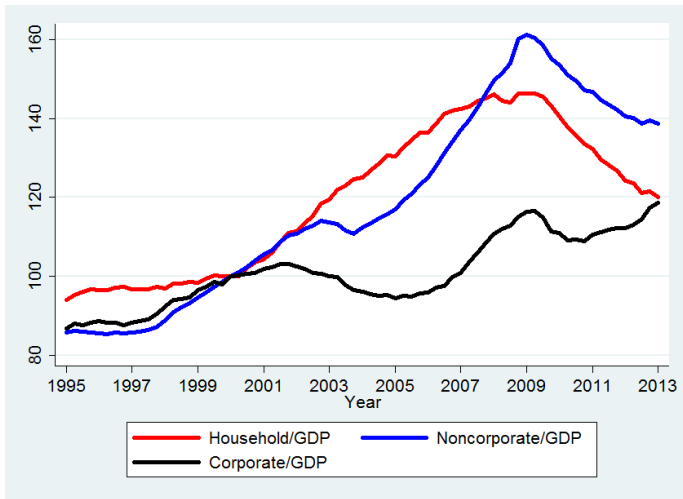
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- 1 Value of this Paper in the Literature
- 2 Extending the Analysis
  - Extending Outcome Variables
  - Extending to Multiple Banks/Regions

# The Rise and Fall of Household/Small Firm Debt



# Explaining the Rise/Fall in Household/Small Firm Debt

	<b>Collateral</b>	<b>Credit Supply</b>
<b>Households</b>	Mian and Sufi (2011, 2014) Mian, Rao, and Sufi (2013)	DiMaggio and Kermani (2014) Kermani (2012) <u><b>Mondragon (2015)</b></u>
<b>Small Firms</b>	Adelino et al (2015) Schmalz et al (2015) Corradin and Popov (2015) Kleiner (2015)	Chodorow-Reich (2014) Greenstone et al (2012)

# Research Objective

How much did the contraction in the supply of credit to households contribute to the decline in employment during the Great Recession?

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# Natural Experiment of Wachovia's Purchase of Golden West Financial

- Wachovia purchased the nation's second largest thrift Golden West Financial in May 2006
- On the October 4, 2008 episode of Saturday Night Live the show lampooned the Wachovia takeover of Golden West Financial as part of a segment on the financial bailout. Darrell Hammond, as Herb Sandler, states that "My wife and I had a company which aggressively marketed subprime mortgages, and then bundled them as securities to sell to banks such as Wachovia. Today, our portfolio's worth almost nothing, though, at one point, it was worth close to \$19 billion." [17] In response to the show, the real Herb Sandler said that he's been "listening to this crap for two years" and "we are being unfairly tarred."

# Identification Strategy and Extensions

$$\text{CountyOutcome}_i = \alpha + \beta \text{WachoviaExposure}_i + \text{CountyControls}_i + \varepsilon_i$$

At its base, this paper details that counties exposed to Wachovia were (i) not fundamentally unique prior to the Golden West purchase and (ii) Different after the purchase

- County Outcome Variables Considered:
  - Mortgage Lending, Employment, Consumption
  - Home Sales, Home Prices
  - Non-Tradable Employment, Construction Employment
- Banks/Locations Considered
  - Wachovia
  - South-Eastern Counties

This Leads me to Two Questions:

- Does the Analysis Extend to Additional Outcome Variables?
- Does the Analysis Extend to Multiple Banks/Locations?



# Outline

- 1 Value of this Paper in the Literature
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  - Extending Outcome Variables
  - Extending to Multiple Banks/Regions
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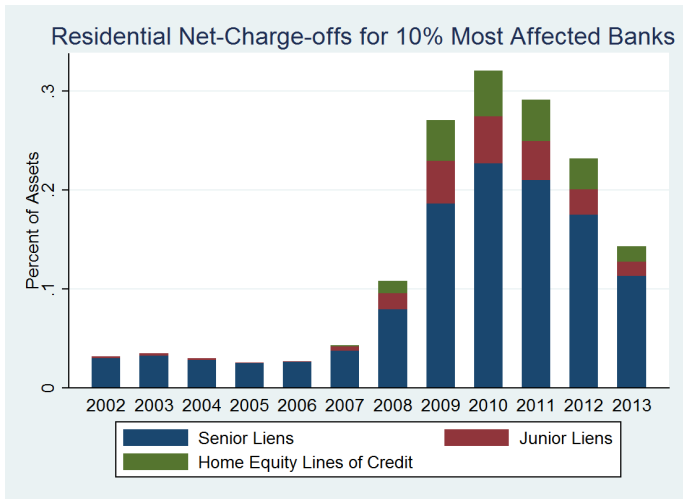
# Including Results on Delinquencies

	Mortgage Delinquency					
	2006	2007	2008	2009	2010	2011
Wachovia Exp 2006	-0.571*	0.637	1.884	1.909	1.281*	0.662
	(-1.995)	(0.757)	(0.944)	(1.141)	(1.779)	(1.113)
Mortgage Lev 2006	0.572***	0.973***	1.558***	1.868***	-0.209	-0.863***
	(6.221)	(3.046)	(4.322)	(5.324)	(-0.699)	(-2.975)
$R^2$	0.024	0.041	0.088	0.101	0.003	0.025

	Auto Delinquency					
Wachovia Exp 2006	-0.421*	1.150***	1.375***	1.177**	1.969***	1.040***
	(-1.686)	(3.822)	(3.119)	(2.116)	(6.519)	(3.264)
Mortgage Lev 2006	0.025	0.077	0.255**	-0.095	-0.091	-0.073
	(0.363)	(0.948)	(2.266)	(-0.552)	(-0.835)	(-0.698)
$R^2$	0.000	0.009	0.011	0.003	0.016	0.005

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# It Wasn't Just Wachovia that Experienced Losses



# Extending The Analysis Beyond Wachovia

- Golden West Financial held toxic mortgage loans due to:
  - ① A Focus on Subprime Lending
  - ② Locations in California and Arizona
- Loan Applicants are Endogenous
  - Banks that lend to Subprime Borrowers cut Lending due to the Deteriorating Financial Health of the Clients
- Bank Location Might be Exogenous
  - Location of the Bank (especially if the branch is old) might be exogenous to lending

# Alternative Identification Strategy

- Follow house price declines in the bank's primary housing market to all other markets outside the state

$$Approval_{h,2010} = \beta \Delta \% Price_{2007-2009}^b + Approval_{2006}^{b,c} \pi X_{h,b} + \phi^c + \varepsilon_h$$

- Approval is a Binary Variable that denotes an Application is Approved
- Price is the House Price in the Bank's Primary Lending Location
- X are Household Controls and Bank Controls
- $\phi$  is a Fixed Effect for each Applicant's County

# Baseline Results on Delinquencies

	Home Purchase		Home Improvement		Refinancing	
$\Delta$ MSA Price <sub>2006–2009</sub>	0.69*** (3.14)	0.50** (2.33)	2.31*** (7.03)	1.00** (2.28)	1.40*** (6.62)	1.28*** (6.45)
Approval Rate <sub>2006</sub>	0.19*** (2.81)	0.15** (2.27)	-0.11 (-0.65)	0.03 (0.29)	0.06** (2.25)	0.08*** (3.54)
Bank Controls	No	Yes	No	Yes	No	Yes
County Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Applicant Characteristics	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.10	0.11	0.15	0.15	0.16	0.16
N	15,051	15,051	12,691	12,691	38,468	38,468

## ① Important Paper in an Important Literature

- ① Considers the Employment Impact of Credit Supply Shocks during the Great Recession

## ② Paper Holds for

- Additional Outcome Variables
- More Banks and Locations

## ③ Disappointed Indiana was not able to get him on our Faculty!