Political Borders and Bank Lending in Post-Crisis America

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- This work only reflect the authors' views only - The presentation is off-the-record and not for reporting, including via social media.

Motivation

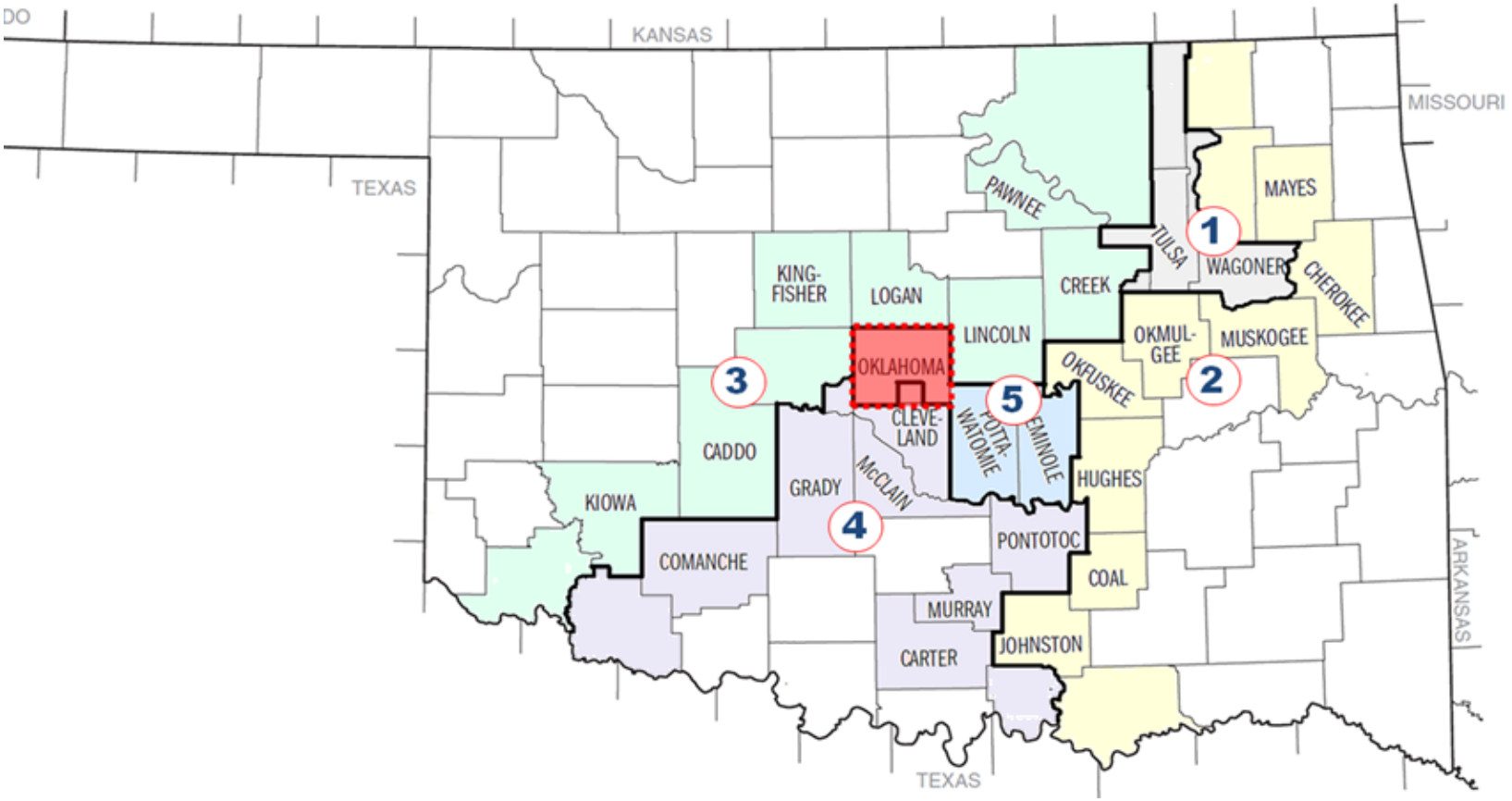
- Do political considerations influence firm investment decisions?

- Political economy literature predicts two-way relationship
  - Politicians may encourage investment that benefit their constituents, or themselves (Shleifer & Vishny, 1994)
  - Responsive firms may gain access to public safety net and influence key votes (Faccio et al. 2006; Mian et al. 2010)

- Gaps in banking industry evidence to date:
  - One-sided influence on state-owned banks in environments with weak institutions (Sapienza, 2004; Dinc, 2005; Carvalho, 2014).
  - No US evidence, despite important notion in historical narratives (Rajan, 2009; Calomiris and Haber 2014)
  - Limited evidence on reciprocal "flows" between politicians and firms, in particular votes on relevant legislation.

This paper

- "Bailed out" US banks lend 22-60% more in (otherwise similar) neighborhoods just inside their home-Congress representative's district.
  - (home-district=district in which a bank is headquartered)



This paper (II)

- The effect is larger if the representative:
  - Voted for the bailout in Congress
  - Received more political contributions from banks
  - Is still in office after the Nov 2008 elections
  - Is member of a key committee
  - "Relies" more on the bank (mortgage market share)

- Takeaway: political considerations influence bank lending decisions
  - Despite no formal interference possibilities
  - More so if benefits are reciprocal

Identification strategy

1. Discontinuities associated with congressional district borders
   - Most banks lend in multiple districts
   - Compare (same) banks in economically similar area…
   - … belonging to different constituency

2. Comprehensive and detailed mortgage lending data (HMDA, 2006-2010)
   - Separate supply and demand
   - Match with politicians vote

3. TARP as shock to political connections between banks and politicians
   - Choice to participate; but ways to get around that

Why TARP?

- Offers banks unprecedented injection of public capital

- But gives Congress representatives important levers
  - Tight vote in Congress (Mian et al. 2010)
  - Influence applications (Duchin and Sosyura, 2012)
  - Influence terms of repayment (Bayazitova and Shivdasani, 2011)

- Do politicians use that "leverage" to influence participants lending?

Why TARP?

STATEMENT OF JOSEPH ZUCCHERO, OWNER, MR. BEEF DELI Chicago IL

At the 2009 Congress hearing: "Is TARP working for main street?"

"*Good afternoon, Chairman Gutierrez, Ranking Member Hensarling, and members of the committee. (…) I thank the committee for inviting us to participate in this crucial hearing. I sincerely believe it is essential during this tumultuous time that the voices of small business owners are heard and those struggles are reported*".

Many small businesses are being starved of needed lines of credit or having their lines of credit not renewed upon maturity. (…) I have two relatively small loans that matured in October and November of last year. (…) Midwest Bank, which received $85 million in TARP funds, will not renew or extend mature loans any further. This places my business and my properties in jeopardy.

Why the home district?

- Politicians are more prone to help banks located in their constituency; connections must be particularly valuable to both parties (Faccio and Parsley, 2009; Cooper et al., 2010; Cohen et al. 2013; Kim et al. 2013; Kostovertsky 2015).

- Anecdotal evidence :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BUSINESS

Political Interference Seen in Bank Bailout Decisions

Barney Frank Goes to Bat for Lender, and It Gets an Infusion

- Should give the politician a lever to influence the bank, and the bank an incentive to respond to influences (or the threat thereof).

Empirical model

$$\Delta Loan_{i,c,t} = \beta_T TARP_{i,t} + \boldsymbol{\beta_{TH}} TARP_{i,t} \cdot Home_{i,c} + \delta X_{i,t} + \zeta Z_{i,c,t} + \{\eta_{c,t}\} + \{\theta_{i,c}\} + \varepsilon_{i,c,t}$$

- c=county (for single-district counties) or district (for multiple district ones)
- X=bank controls; Z=borrower controls

- Main challenge: TARP correlated with post-TARP Home demand.
  1. $\{\eta_{c,t}\}$ county-year fixed effects; $\{\theta_{i,c}\}$ bank-district fixed effects
  2. Zoom onto "frontier" counties/census tracts
  3. IV: pre-TARP political connections (Duchin and Sosyura, 2014)
  4. Propensity Score and characteristic-by-characteristic matching
  5. Application-level regression

Zoom onto "frontier" counties/census tracts

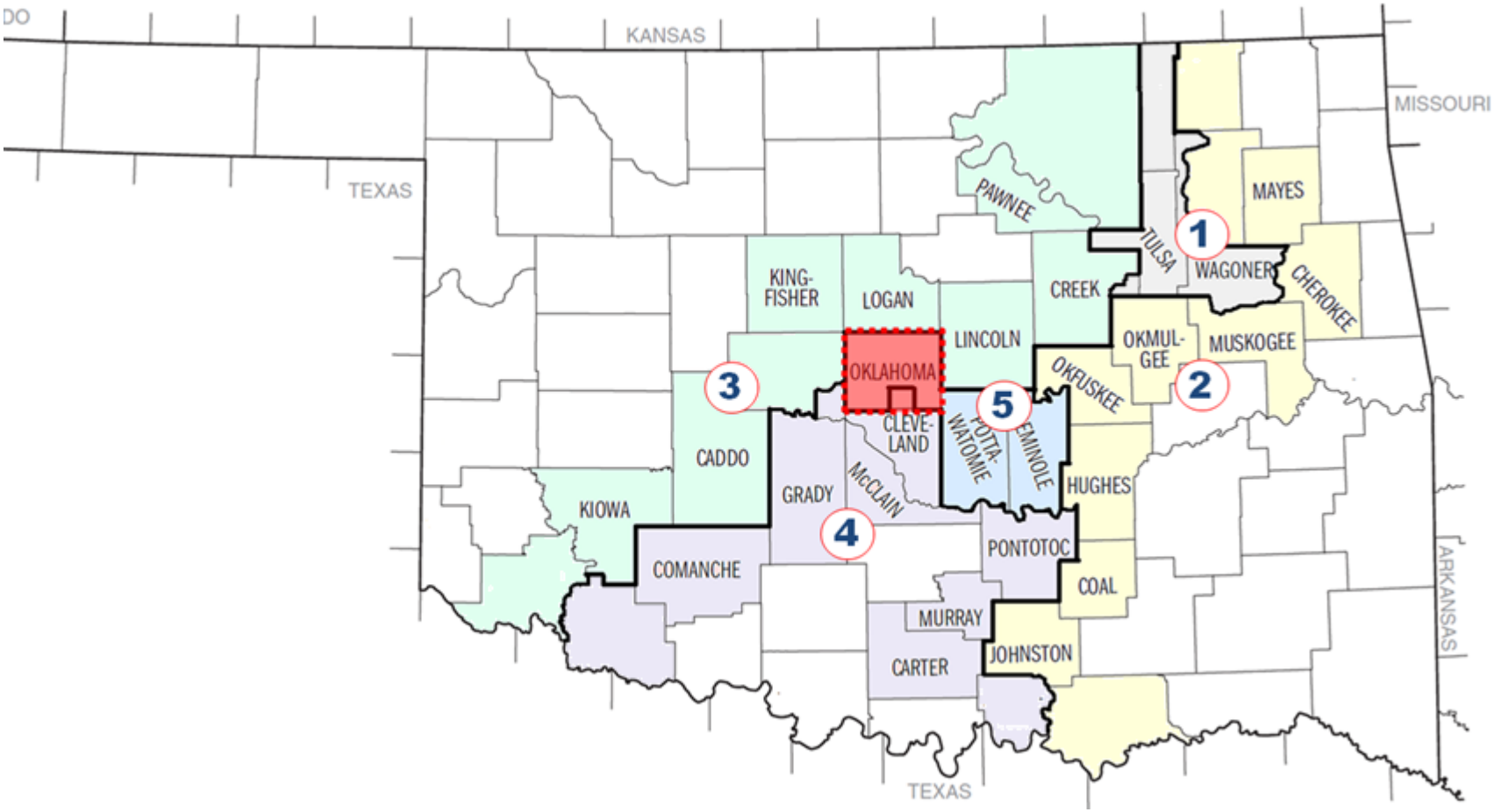

Figure: Congressional districts and counties in the State of Oklahoma

Zoom onto “frontier” counties/census tracts

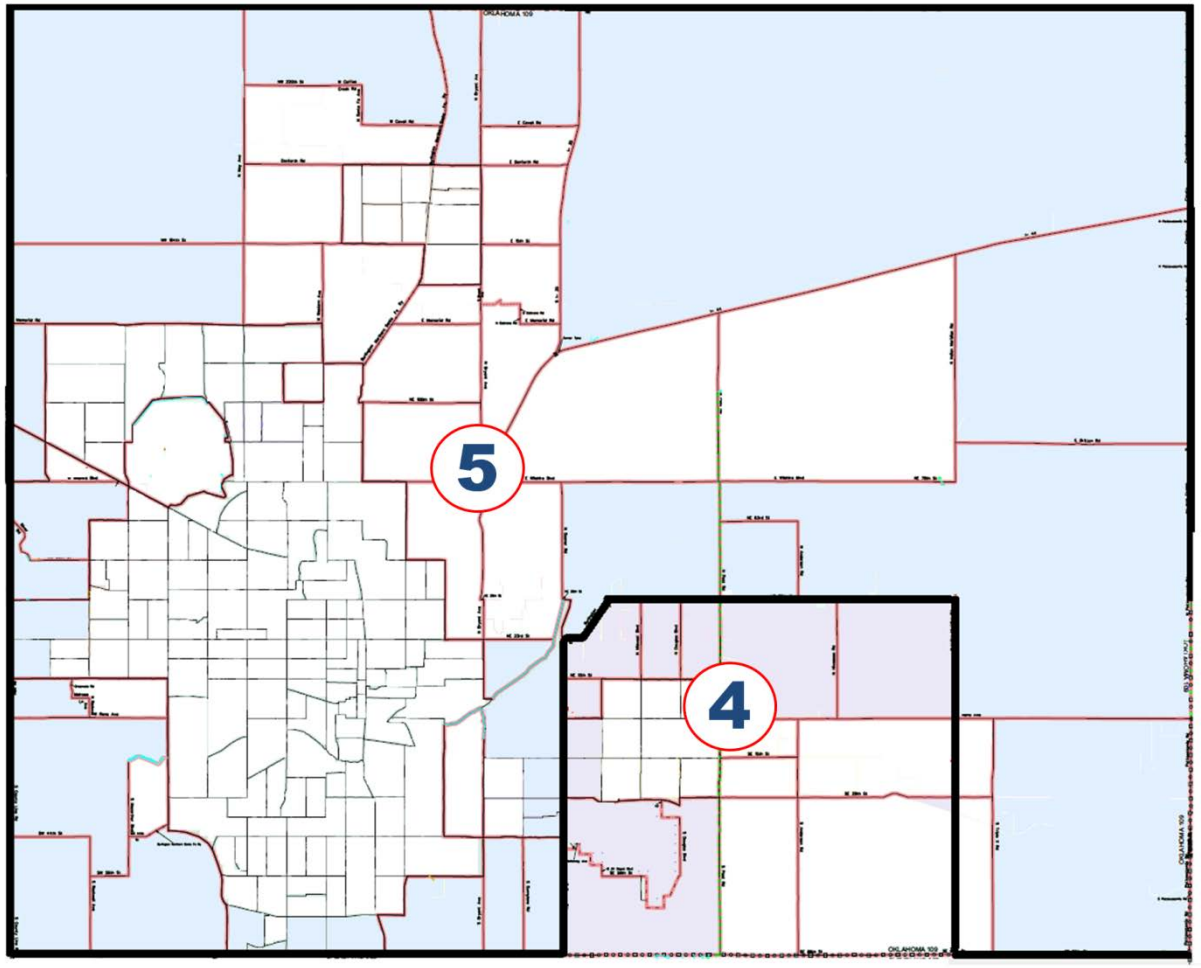

Figure: Congressional districts and census tracts in the Oklahoma City county

Main result: the "home-district effect"

	(1) OLS	(2) IV (1)	(3) IV (2)	(4) Propensity Score Matching
Stage 0 instrument:		Fed director	Subcommittee member	
TARP x Home	0.22**	0.47**	0.46**	0.21**
	(0.07)	(0.14)	(0.13)	(0.06)
TARP	-0.05	-0.38**	-0.39**	-0.13
	(0.09)	(0.15)	(0.16)	(0.07)
Observations	93,671	93,671	93,671	44,553
Adjusted R^2	0.40	0.39	0.39	0.44
Kleibergen-Paap statistic		42.07	37.23	

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Robustness

- Drop gerrymandered districts
- Drop GSE and FHA loans
- County x Year x TARP fixed effects
- Only rural/urban counties
- Keep loans in all census tracts
- Characteristic-by-characteristic matching

Placebo exercises:

- No Home-district effect before TARP (2003-2007)
- No Home-county effect

Small business lending (CRA data)

	(1) OLS	(2) IV (1)	(3) IV (2)	(4) Propensity Score Matching
Stage 0 instrument:		Fed director	Subcommittee member	
TARP x Home	0.26	0.48*	0.50*	0.21*
	(0.14)	(0.21)	(0.22)	(0.10)
TARP	0.05	-0.34	-0.27	0.03
	(0.16)	(0.21)	(0.22)	(0.09)
Observations	43,019	42,896	42,896	25,868
Adjusted R^2	0.25	0.03	0.03	0.28

Application-level regression

$$\textbf{Accepted}_{a,i,c,t} = \beta_T \text{TARP}_{i,t} + \boldsymbol{\beta_{TH}} \text{TARP}_{i,t} \cdot \text{Home}_{i,c} + \delta X_{i,t} + \zeta Z_{i,c,t} + \{\eta_{c,t}\} + \{\theta_{i,c}\} + \varepsilon_{i,c,t}$$

	(1)	(2)	(1)	(2)
	OLS	Propensity Score Matching	OLS	Propensity Score Matching
Model:	**Within census tracts**		**Across census pairs**	
TARP x Home	0.04**	0.04**	0.03**	0.03**
	(0.01)	(0.01)	(0.01)	(0.01)
TARP	-0.03	-0.01	-0.02	-0.01
	(0.02)	(0.02)	(0.01)	(0.02)
Fixed effects:				
Tract-Year	Yes	Yes	Yes	Yes
Bank-Home	Yes	Yes		
Bank-Pair			Yes	Yes
Observations	767,397	439,774	1,632,856	927,653
Adjusted R^2	0.23	0.26	0.33	0.33

Political channels

Interaction:	(1) EESA vote yes	(2) AHRFPA vote yes	(3) Key committee member	(4) Re-elected in 2008	(5) Financial contributions (only re-elected supporters)	(6) Ideology (only re-elected supporters)	(7) District market share
TARP x Home	-0.06	0.09	0.08	-0.14	-0.65*	0.21**	0.05
	(0.09)	(0.09)	(0.05)	(0.15)	(0.33)	(0.12)	(0.07)
TARP	0.24*	0.10	0.07	0.26	1.08**	-0.02	0.06
	(0.10)	(0.11)	(0.07)	(0.13)	(0.33)	(0.08)	(0.08)
TARP x Home x *Interaction*	0.37*	0.17	0.31*	0.40*	0.08*	-0.22	2.03**
	(0.16)	(0.17)	(0.14)	(0.20)	(0.03)	(0.16)	(0.75)
TARP x *Interaction*	-0.39	-0.20	-0.26*	-0.34*	-0.010**	0.27*	-0.78**
	(0.14)	(0.14)	(0.12)	(0.16)	(0.03)	(0.12)	(0.15)
Observations	93,556	90,001	93,671	93,663	82,774	82,774	86,723
Adjusted R^2	0.39	0.39	0.39	0.39	0.40	0.40	0.39

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What did we learn?

- Home-district effect: "bailed out" banks rebalance lending towards their home-representative's district

- Takeaway: political considerations influence US bank lending decisions
  - Despite no formal interference possibilities
  - More so if benefits are reciprocal

- Complements recent US evidence:
  - Akey et al. (2016): consumer lending and powerful congress reps
  - Agarwal et al. (2016): foreclosures and powerful congress reps.
  - Ours: willingness and ability to help depends on a combination of factors.

What did we learn? TARP

- TARP has increased lending riskiness, not volume (Black and Hazelwood, 2013; Li, 2013; Duchin and Sosyura, 2014)

- Why were politicians so keen for their banks to participate?

- Our findings: some constituents benefited more than others.

What did we learn? Policy

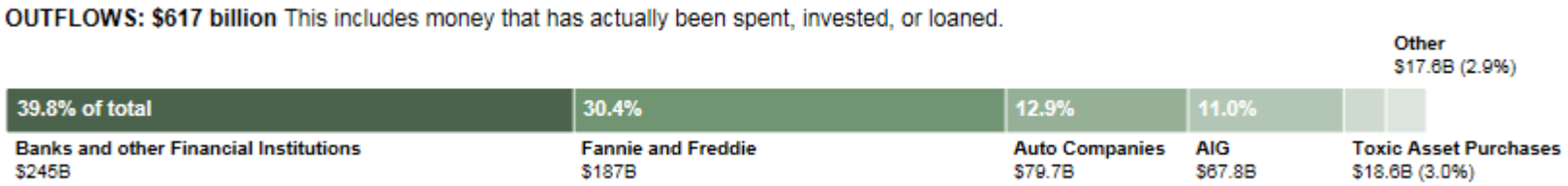
- Lessons for resolution/regulatory regimes
  - Bailouts can create/exacerbate fragmented credit allocation.
  - Especially if bank activities extend across political borders.
  - And even in a politically/economically highly integrated area
  - Tragedy of the commons: even a benevolent politician will care about market failures in its own constituency only
- Resolution authority in federal unions.
  - US: state vs. federal interests key for historically fragmented regulatory and branching system (White, 1982).
  - Deemed resolved by removal of barriers to intra- and interstate banking (1994 Riegle-Neal Act).
  - Tensions can resurface in the case of federal programs.
  - Support EU-wide bank resolution scheme, but cautionary note on the possibility of national distortions.
- Heated debate: are "bailouts" about Wall Street or Main Street?
  - Perhaps both
  - But <u>some</u> Main Streets may be "more equal than others".

Thanks for your attention!

Additional slides

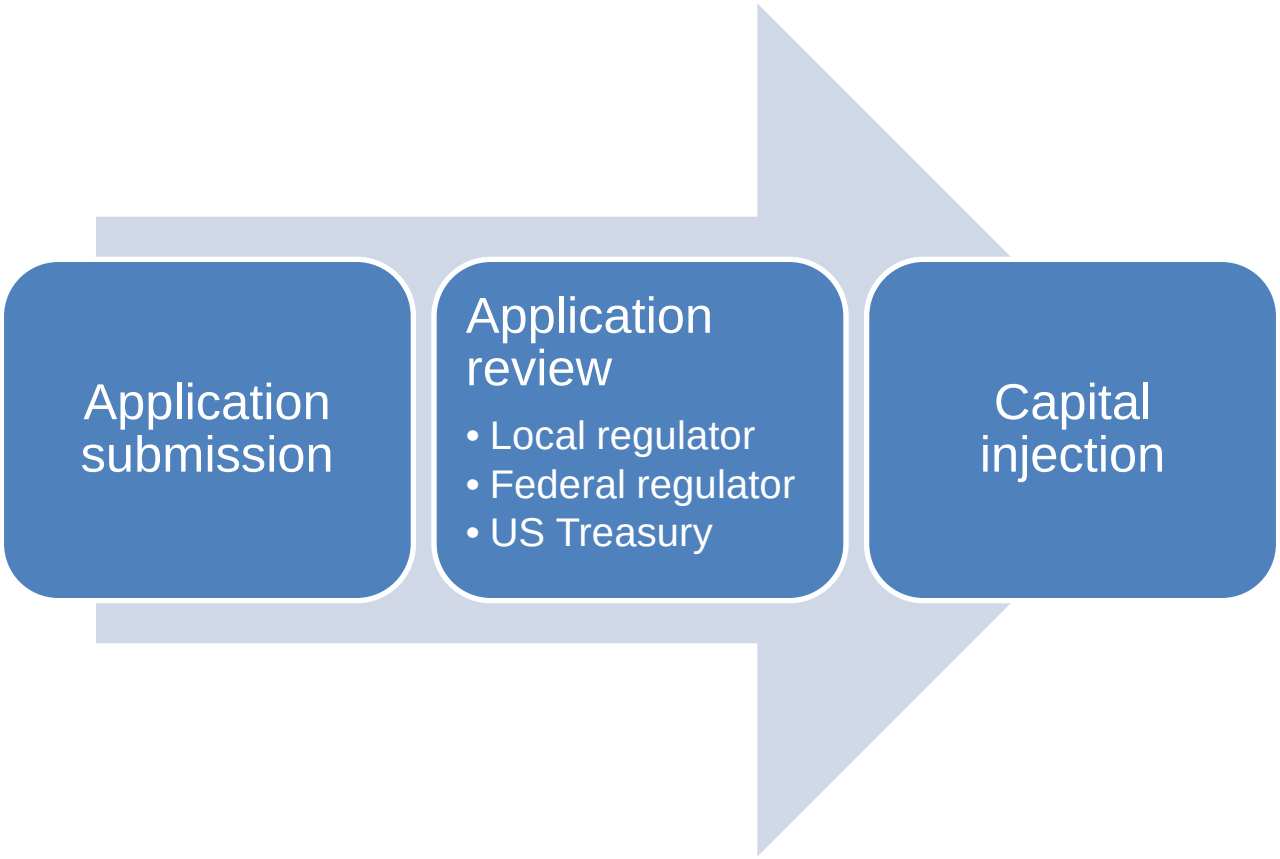
Background: The TARP

- Flagship program of Paulson's 2008 Emergency Economic Stabilisation Act (EESA)
  - Originally a 700 $bn program (later reduced to 450 $bn)
  - 14 different initiatives and programs

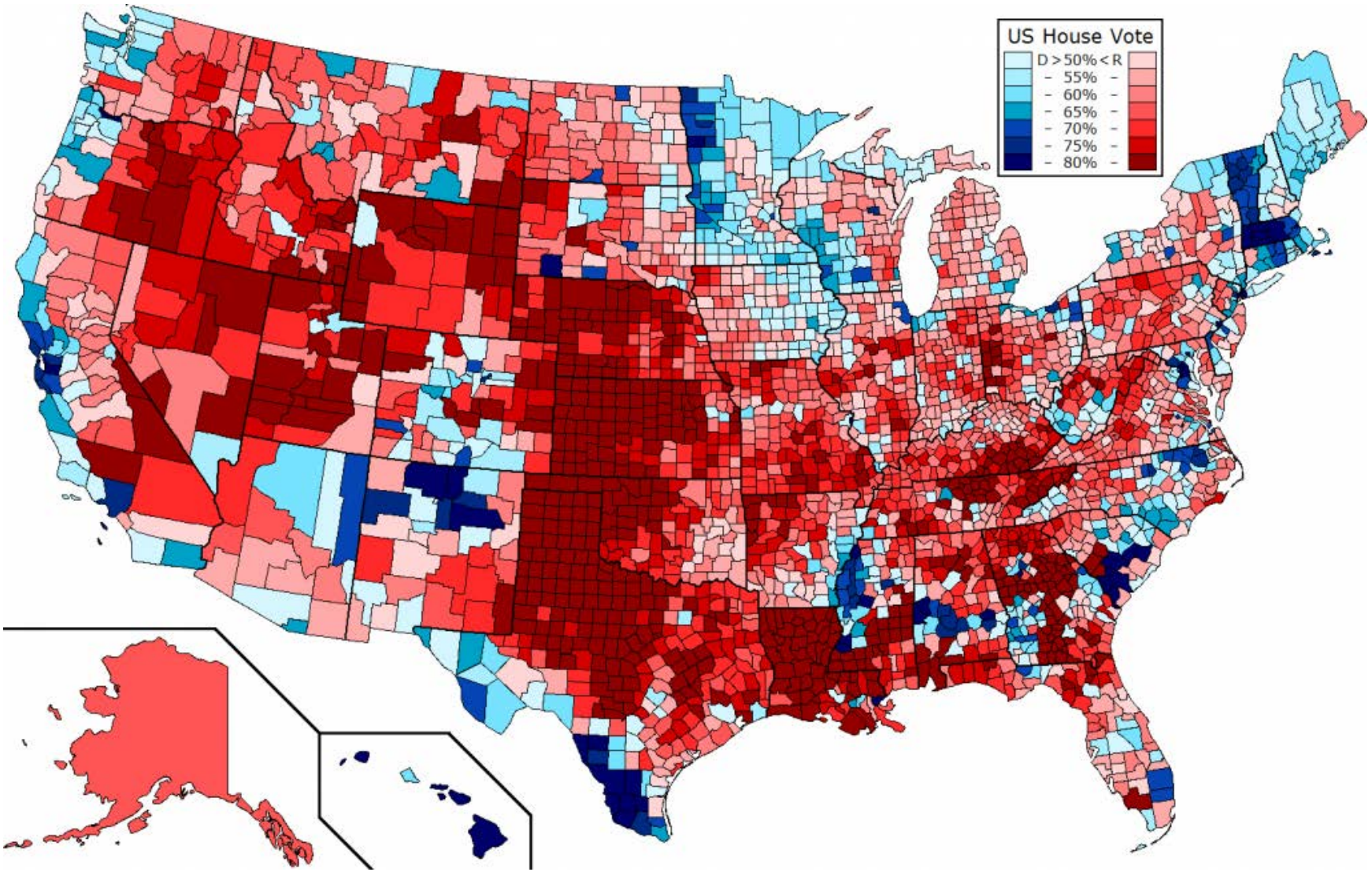


- Lion's share: Capital Purchase Program (CPP)
  - 709 recipients
  - 204.6 $bn pledged
  - 80+ investments still outstanding
- Voluntary participation
  - All domestic banks/BHCs eligible
- Terms: Purchase of preferred share by the Treasury
  - 5% dividend (9% after five years)

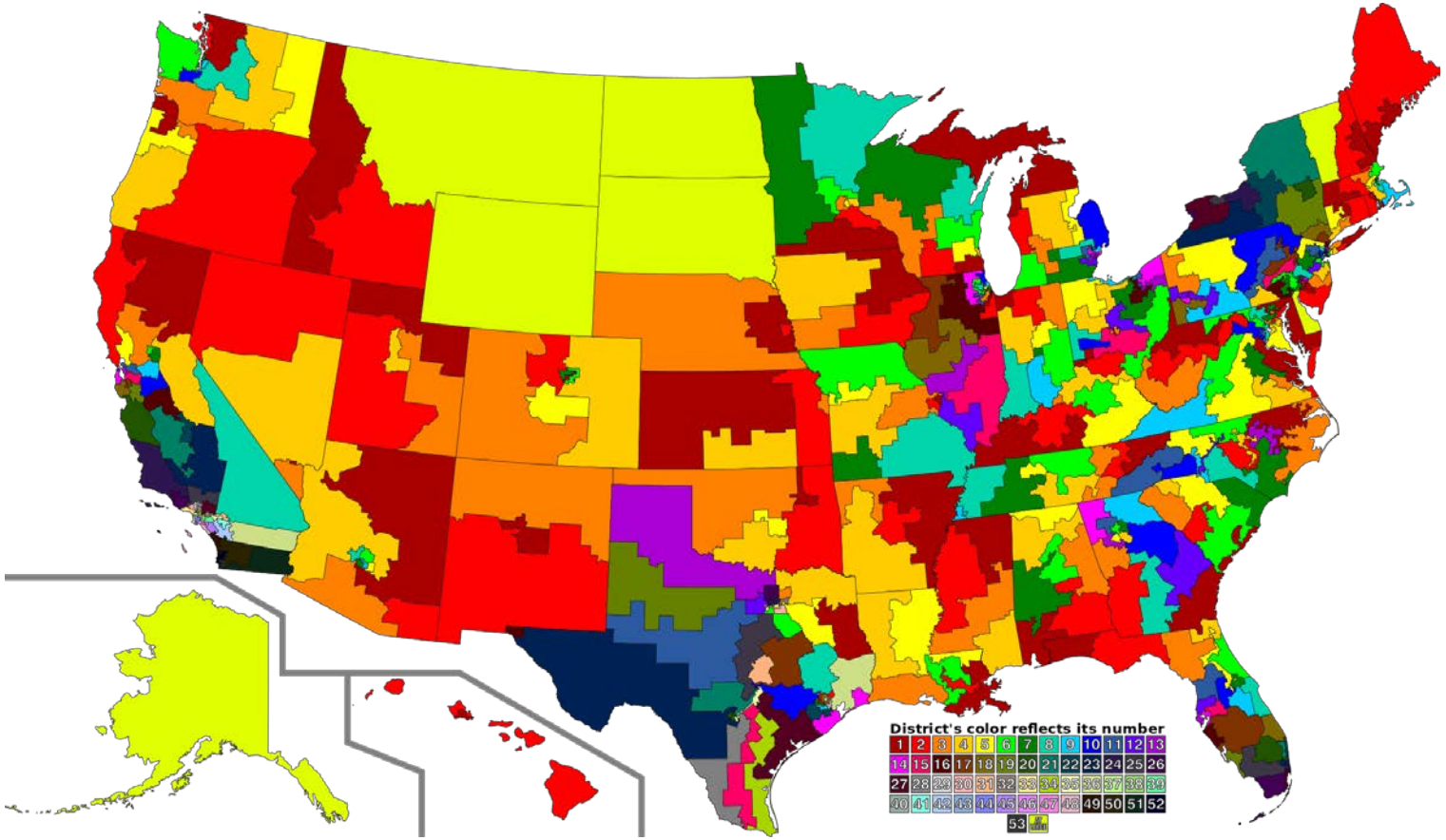
The TARP program



US counties



Congressional Districts



Key: Some district borders do not coincide with state borders

Data: HMDA

- >48.3 mn loans originated by >8,000 banks in 2006-10
- Borrower location information up to census tract
  - Keep only loans to census tracts contiguous to intrastate district borders
- Comprehensive coverage (mandatory reporting)
- Borrower risk/characteristics
  - Loan size, income, LTI, ethnicity, gender, census tract characteristics

- Discarded applications:
  - Incomplete information, overseas applicants
  - Banks without call reports (credit unions, thrifts …)
  - Top-19 banks (forced to participate in TARP)

- Aggregate by "area"

Instrumental Variable (Duchin & Sosyura 2014 JFE)

1. Estimate cross-sectional probit for bank i's TARP participation

	(1)	(2)	(3)	(4)	(5)	(6)
		IV (1)			**IV (2)**	
IV Stage:	Stage 0	Stage 1		Stage 0	Stage 1	
Dependent variable:	I(TARP)	TARP	TARP x Home	I(TARP)	TARP	TARP x Home
Stage 0 instrument:						
Fed director	0.72**					
	(0.18)					
Subcommittee member				0.30**		
				(0.07)		

2. Construct an instrument; 0 before 2008, fitted value after: