

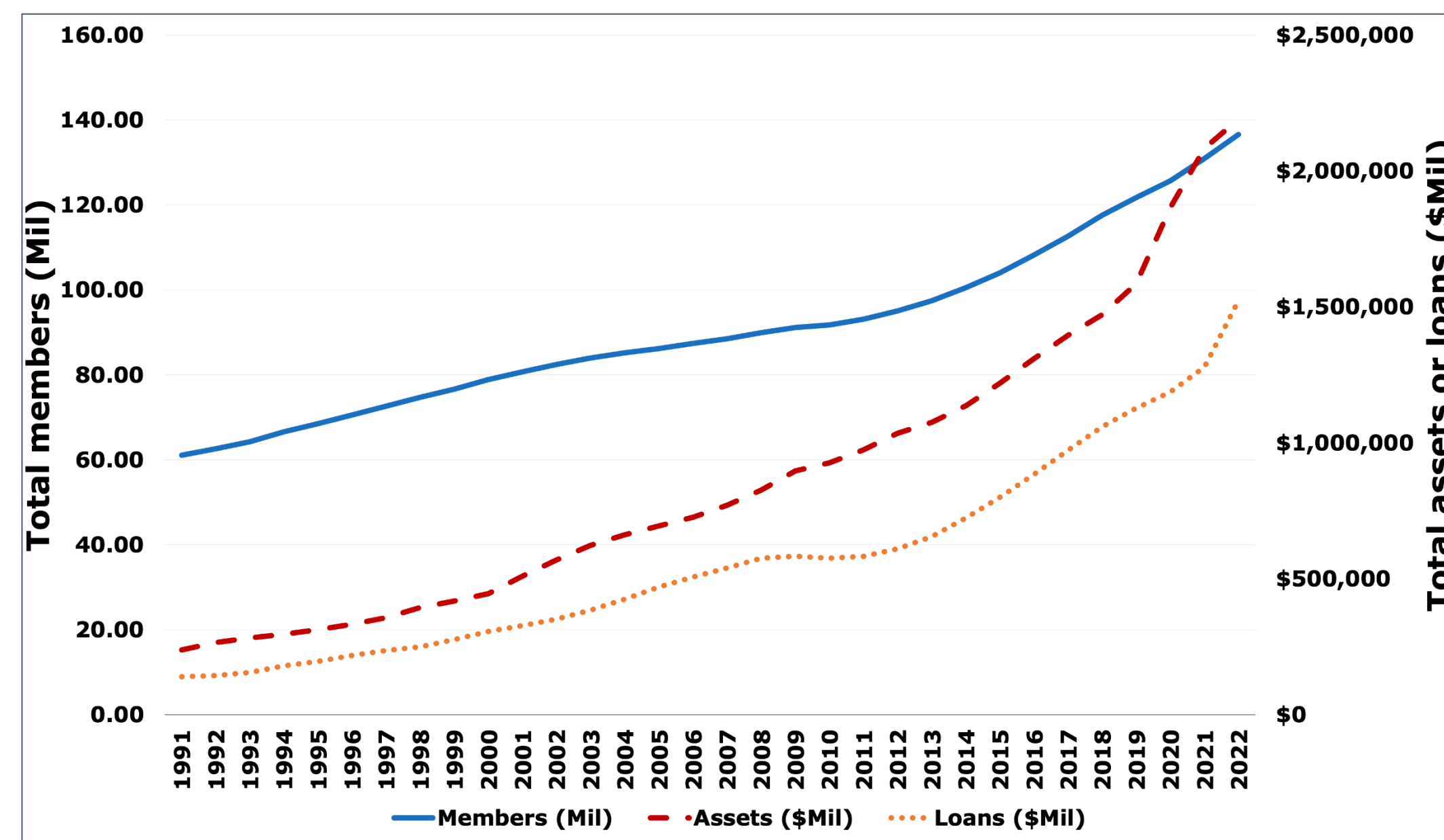


## Credit Union Expansion and Bifurcation in Local Bank Lending

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### INTRODUCTION



#### Rapid growth of U.S. credit unions (CU):

- Total assets have grown fivefold (2000 - 2020).
- Membership base more than doubled (2000 - 2020).
- Originates ~30% of new car loans and 25% of mortgages as of 2023 Q4.

#### NCUA 2017 FOM Rule Change:

“The National Credit Union Administration (NCUA) Board approves comprehensive changes to the agency’s field-of-membership regulations, allowing more Americans to become eligible for credit union membership.”

- NCUA announcement, Oct. 2016

### OBJECTIVES

How does the rapid expansion of CUs, in particular under the NCUA’s 2017 FOM rule change affect:

- Bank competition in local credit markets?
- Large vs. small banks?
- Competition in price (loan/deposit spreads)?

What are the credit allocation implications on the rural, low-income, and underserved communities?

### METHODS

Nationwide increase in CU market share:

- Use 2015 Q4 Federal CU market fraction (*FCU fraction<sub>i</sub>*) to measure CU induced competition change.

#### CU’s Response to 2017 FOM Rule Change

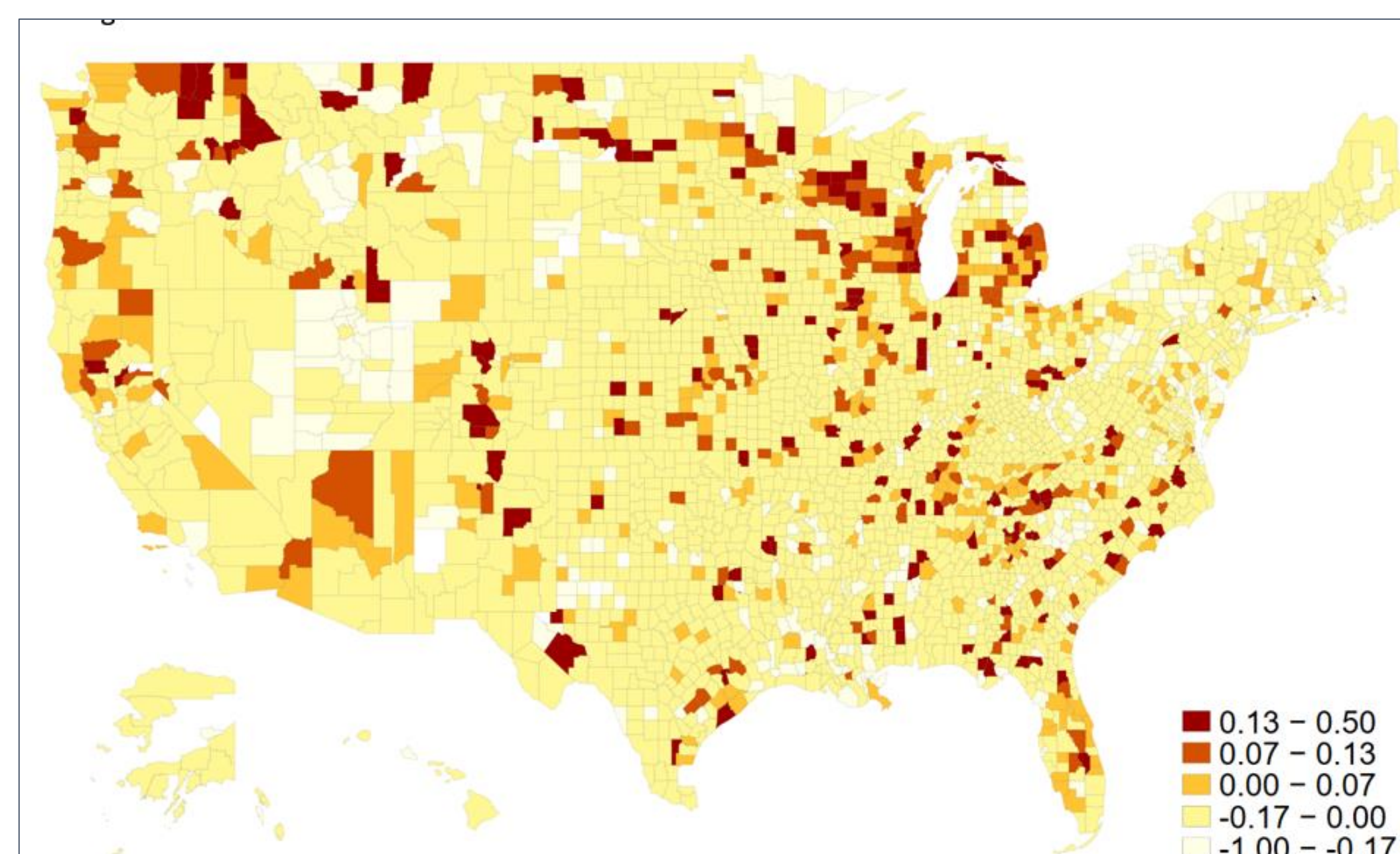
$$Y_{i,t} = \beta_1 FCU\ fraction_i \times Post_t + \beta_2 \times FCU\ fraction_i + \beta_3 \times Post_t + \gamma_t + \delta_i + \varepsilon_{i,t}$$

$Y_{i,t}$ : Credit union  $i$  in year-quarter  $t$

$Post_t$ : Dummy for  $t$  is in or after 2017 Q1

$\gamma_t, \delta_i$ : Fixed effects

Dep. Var.	(1) Sum of branches	(2) Sum of counties operating	(3) Assets (\$mil)	(4) Log Assets
FCU fraction 2015Q4 × Post	2.347* (1.202)	0.707** (0.345)	726.135*** (277.483)	0.249*** (0.050)
Observations	28,352	28,338	29,626	29,626
Adj. R2	0.972	0.978	0.919	0.996



A look at nationwide expansion of CU after 2017 FOM rule change.

### BANK COMPETITION

Bank’s deposit and loan rates:

All banks Dep. Var.	(1) Rate spread (=deposit or loan rate - FF rate) CD \$10k		(4) Home loans	
	12-month	36-month	HELOC	Mortgage
FCU fraction × Post	0.074** (0.031)	0.046* (0.027)	-0.235* (0.141)	-0.096** (0.042)
Observations	76,665	73,305	11,525	4,777
Adj. R2	0.975	0.972	0.952	0.967
Lender × Year-quarter FE	Yes	Yes	Yes	Yes
Lender × County FE	Yes	Yes	Yes	Yes

Bank branches in counties more exposed to FCUs respond to the competition by further increasing deposit rates and lowering loan rates.

#### Bifurcation: Large vs. small banks

Dep. Var.	(1) Rate spread (=deposit or loan rate - FF rate) CD \$10k		(4) Home loans	
	12-month	36-month	HELOC	Mortgage
<b>Panel A. Large banks (≥ \$100b)</b> FCU fraction × Post	0.024 (0.015)	-0.011 (0.015)	-0.177 (0.150)	-0.054 (0.053)
Observations	22,483	22,442	6,865	2,727
Adj. R2	0.989	0.982	0.954	0.976
<b>Panel B. Small banks (&lt; \$100b)</b> FCU fraction × Post	0.135*** (0.052)	0.113** (0.052)	-0.588* (0.346)	-0.290* (0.157)
Observations	54,116	50,797	4,647	2,048
Adj. R2	0.963	0.959	0.908	0.949
Lender × Year-quarter FE	Yes	Yes	Yes	Yes
Lender × County FE	Yes	Yes	Yes	Yes

Small banks aggressively adjust deposit and loan prices to defend market share, whereas large banks shift away from competition.

### IMPLICATIONS OF FCU EXPANSION

Did underserved borrowers benefit?

- Mortgage denial rate in HMDA

Dep. Var.	(1)		(3) Denied		(5)		(6)
	(2)	(4)	(2)	(4)	(5)	(6)	
Loan sample	Purchase		Refinance				
FCU × Post × Low income	-0.018*** (0.006)			-0.030*** (0.010)			
FCU × Post × Minority		-0.015** (0.007)			-0.032*** (0.010)		
FCU × Post × Female			0.001 (0.002)				-0.007* (0.004)
Observations	12,856,906	11,630,778	12,856,906	20,814,726	18,493,398	20,814,726	
Adj. R2	0.108	0.111	0.111	0.132	0.140	0.138	
Loan controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lender × Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
County × Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Loan amount decile FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Borrower income decile FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Traditionally underserved borrowers benefit from FCU expansion.

### CONCLUSIONS

CU deregulation impact on local credit market:

- Small banks: ↑ deposit rate; ↓ loan rates.
- Large banks: ↓ costly lending, do not adjust deposit rates, and eventually withdraw from CU-heavy markets.
- Underserved communities credit access improved.

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