



The Procyclicality of FDIC Deposit Insurance Premiums

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INTRODUCTION

Motivation:

“steep deposit insurance payments [while] earnings are already depressed... [which], in turn, could cause a further cutback in credit, resulting in a further slowdown of economic activity at precisely the wrong time in the business cycle” (FDIC 2001).

Despite interest in the issue, empirical research on the link between procyclical deposit insurance premium regulations and bank lending has been limited due to identification challenges.

Identification Challenges:

1. Scarcity of exogenous variation in deposit insurance premiums
2. Simultaneity of exogenous variation and endogenous variation caused by changes in bank performance.

We exploit changes to FDIC deposit insurance premium schedules, necessitated by the financial crisis, to empirically document a procyclical effect of FDIC deposit insurance premiums on bank lending around the financial crisis of 2008-2009.

INSTITUTIONAL BACKGROUND

FDIC Deposit Insurance:

The FDIC provides deposit insurance to depositors of U.S. commercial banks and savings banks.

In setting assessment rates, the FDIC Board of Directors is required to consider the risk of the depository institutions and the risk of losses to the Deposit Insurance Fund (DIF).

- During the crisis, insured banks were assigned to a risk category, ranging from 1 to 4, based on the insurance pricing model.

Jan 1, 2007–Dec 31, 2008

(bps)	RC I	RC II	RC III	RC IV
Assessment Rate	5 – 7	10	28	43

If the DIF falls below the target ratio, or is expected to do so within six months, the FDIC must adopt a plan to restore the DIF to the designated ratio generally within eight years.

NCUA Deposit Insurance:

The National Credit Union Administration (NCUA) regulates and insures the deposits of credit unions.

The NCUA requires credit unions to deposit 1% of insured shares in the National Credit Union Share Insurance Fund (NCUSIF).

The NCUA does not charge insurance premiums unless the equity ratio of the NCUSIF falls below 1.30%.

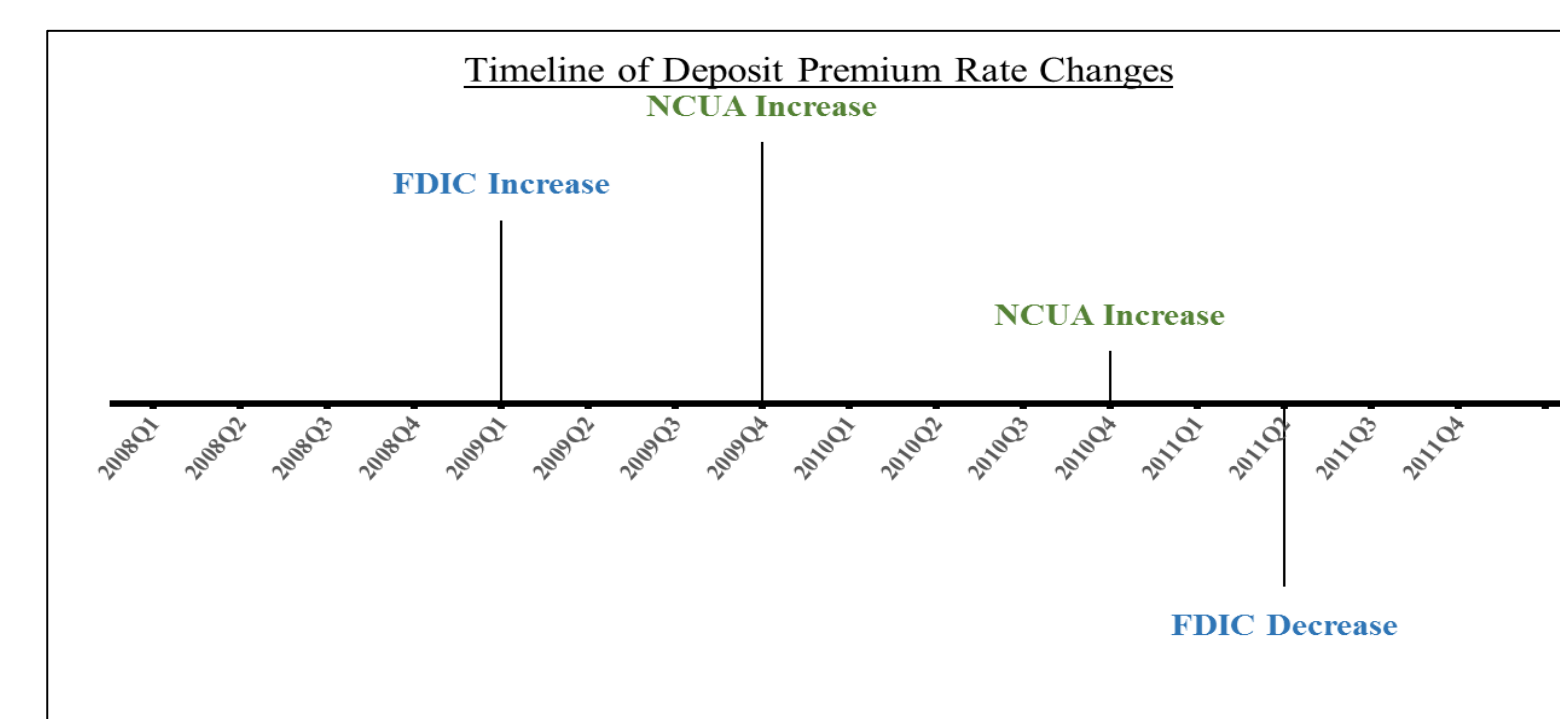
HYPOTHESIS

When faced with an increase in deposit insurance premiums, a bank can respond by:

1. passing on the cost to depositors by reducing interest rates on deposits
2. switch source of funding from deposits to external borrowing
3. raise the interest rates attached to loans, which in turn will reduce total bank lending

METHODOLOGY

Timeline of Events:



- 2009 Q1: FDIC increases assessment rates uniformly by 7 bp.
- 2009 Q4: NCUA charges 10.27 bp premium on insured deposits and shares.
- 2010 Q4: NCUA charges 12.42 bp premium on insured deposits and shares.
- 2011 Q2: FDIC decreases assessment rates by 7-10bp (varied by bank risk category).

Research Design:

$$y_{iq} = \beta_0 + \beta_1 P_q + \beta_2 x_i + \beta_3 P_q x_i + \gamma Z_{iq} + \varepsilon_{iq}$$

- y is one of three measures of bank response:
 - Interest Expense/Total Deposits
 - Deposit/Total Liabilities
 - %Δ Lending
- P is an indicator equal to one if quarter q is immediately following an exogenous change in deposit insurance premiums
- x is an indicator equal to one if financial institution i is an insured bank
- $P \cdot x$ is our variable of interest
- Z is a broad vector of control variables

For identification, we restrict the window of analysis to two quarters—those immediately before and immediately after a rate change.

Using confidential regulatory data, we remove banks which undergo risk category changes during the period to remove the effect of insurance rate changes caused by bank-endogenous factors.

RESULTS

2009 Assessment Rate Changes:

Dependent Variable	(1)	(2)	(3)	(4)	(5)	(6)
Bank premiums (bps)	Change (+7)	Change (0)	Change (+7)	Change (0)	Change (+7)	Change (0)
Credit union premiums (bps)	Change (0)	Change (+10)	Change (0)	Change (+10)	Change (0)	Change (+10)
Quarter of Premium Change	2009Q1	2009Q4	2009Q1	2009Q4	2009Q1	2009Q4
POST*INSURED BANK	0.0103*** (0.000683)	9.25e-05 (0.000436)	0.0296 (0.0217)	0.00325 (0.00246)	-0.0159*** (0.00133)	0.0144*** (0.00111)

2009-2011 Assessment Rate Change (%Δ Loans):

Dependent Variable	(1)	(2)	(3)	(4)
Bank premiums (bps)	Change (+7)	Change (0)	Change (0)	Change (-7)
Credit union premiums (bps)	Change (0)	Change (+10)	Change (+2)	Change (0)
Quarter of Premium Change	2009Q1	2009Q4	2010Q4	2011Q2
POST*INSURED BANK	-0.0159*** (0.00133)	0.0144*** (0.00111)	0.00470*** (0.00105)	0.00266** (0.00108)

The results show the primary method by which banks and credit unions initially responded to the deposit premium increase was through contraction in lending.

2009-2011 Assessment Rate Change (by Size):

Large Banks:

Dependent Variable	(1)	(2)	(3)	(4)
Bank premiums (bps)	Change (+7)	Change (0)	Change (0)	Change (-7)
Credit union premiums (bps)	Change (0)	Change (+10)	Change (+2)	Change (0)
Quarter of Premium Change	2009Q1	2009Q4	2010Q4	2011Q2
POST*INSURED BANK	-0.0115 (0.01500)	0.0391** (0.01550)	0.0114 (0.00895)	0.00258 (0.00750)

Small Banks:

Dependent Variable	(1)	(2)	(3)	(4)
Bank premiums (bps)	Change (+7)	Change (0)	Change (0)	Change (-7)
Credit union premiums (bps)	Change (0)	Change (+10)	Change (+2)	Change (0)
Quarter of Premium Change	2009Q1	2009Q4	2010Q4	2011Q2
POST*INSURED BANK	-0.0204*** (0.00219)	0.00901*** (0.00179)	0.00351** (0.00174)	0.0139*** (0.00187)

The most acute response to deposit insurance rate changes came from small community banks.

CONCLUSIONS

We empirically document a procyclical effect of FDIC insurance premium regulations on bank lending using variation around the Global Financial Crisis.

We find that when deposit premiums increase (decrease), lending decreases (increases), which suggests that changes in insurance premiums can influence the real economy through the bank lending channel.

Recent changes in deposit insurance assessment rate policy can help address some procyclicality concerns:

- In 2010, the FDIC set a goal of growing the DIF during times of favorable conditions such that the DIF would have a balance of \$2.00 for every \$100 of insured deposits and increase the likelihood of the DIF remaining positive throughout periods of significant bank failures.
- In 2011 the FDIC introduced scorecards for large banks to determine assessment rates derived from new data.
- In 2016 the FDIC updated its pricing structure for established small banks.

KEY REFERENCES

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