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Regulatory Supervision through Deterrence: Evidence from Enforcement Actions

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Research Question

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Do regulatory enforcement actions have a spillover (deterrence) effect on the target's peers?

Setting: Banking industry

Do the enforcement actions of a target bank convey new information to its peer banks, and hence, does it affect the behavior of its peers?

Regulators

PCAOB
Public Company Accounting Oversight Board

U.S. Securities and Exchange Co...

Commodity Futures Trading Com...

Federal Reserve System

Federal Deposit Insurance Co...

Financial Crimes Enforcement ...

Financial Industry Regulatory A...

Office of the Comptroller of the Currency

Enforcement Action

Target Firms

- An important and powerful tool that regulators use to ensure compliance and deter risky actions.

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Enforcement Action

Target Firms

- Resource constrained (Dechow et al. 2011; Kedia and Rajgopal 2011; Agarwal et al. 2014; Hirtle et al. 2019).

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Enforcement Action

Target Firms

This paper: Peers Effects

Why Peer Effects?

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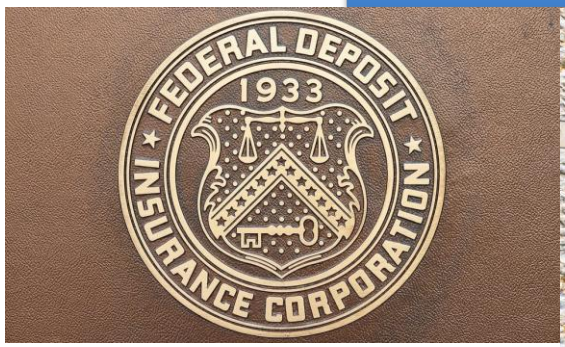
- Regulatory objective is to ensure compliance in all firms.
- Enforcement action disclosure may convey new information that leads peers to alter behavior.
- Extensive literature on spillovers and peer effects, but few studies (e.g., Kedia and Rajgopal 2011) examine a regulatory setting.

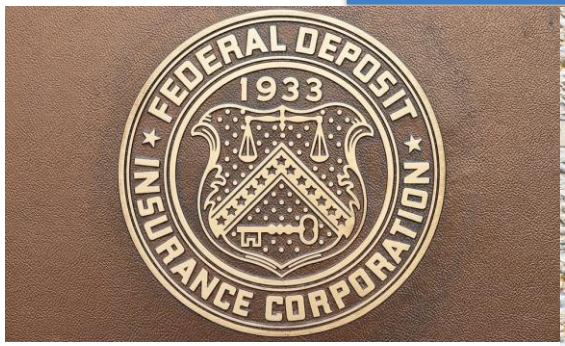
Three Regulatory Agencies



Enforcement Action

- Deter risky actions that can result in insolvency.
- Mostly issued at the end of a bank examination (many have 4 or 5 CAMELS ratings).
- Publicly disclosed as mandated by the Financial Institutions Reform, Recovery, and Enforcement Act in 1989.
- When supervisory issues cannot be resolved privately.

Three Regulatory Agencies



Enforcement Action

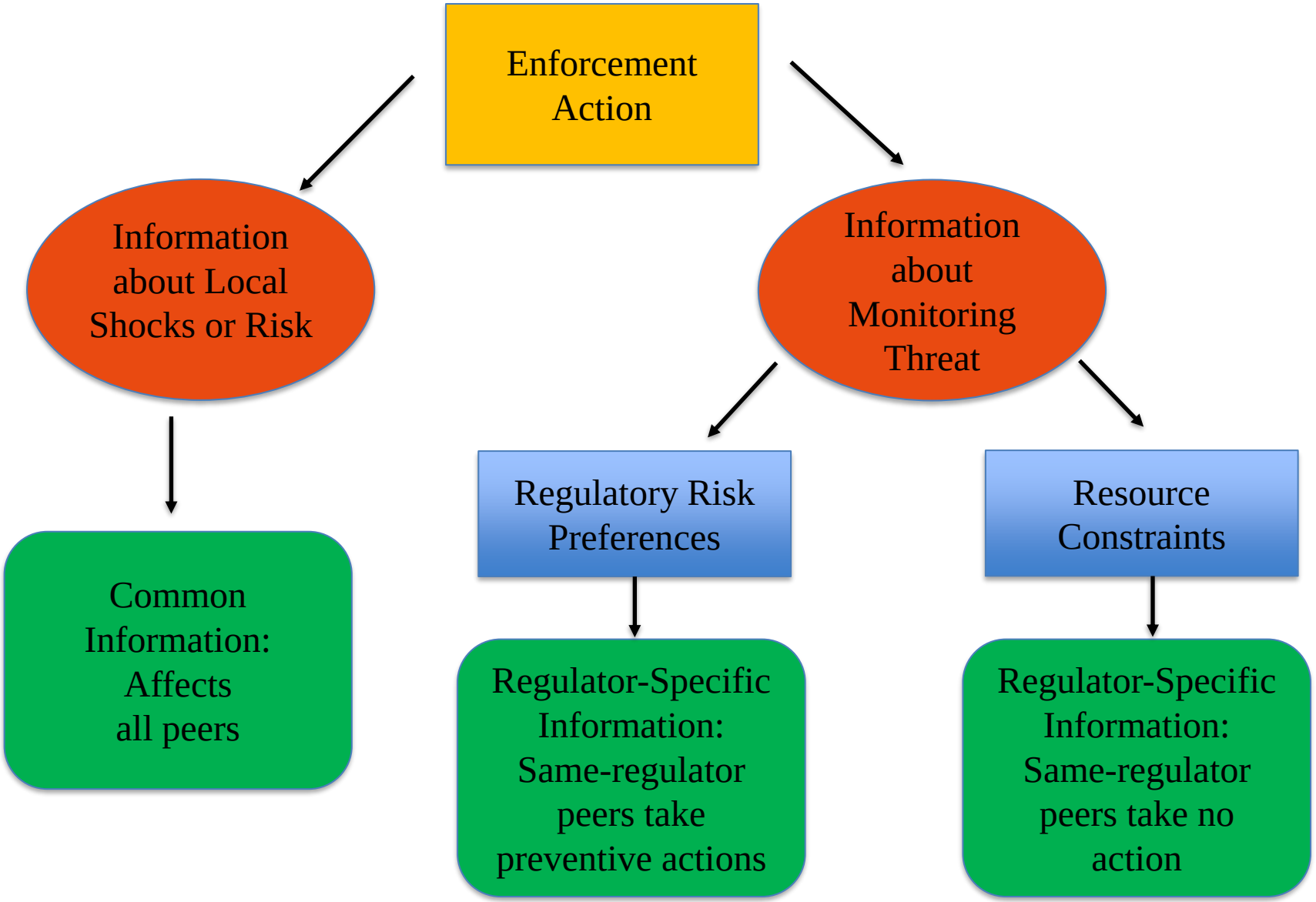
Target Bank

- Negative market reaction after disclosure (Brous and Leggett 1995; Jordan et al. 1995).
- Reduced risk-taking and improved accounting quality at target banks in response (Delis et al. 2017, 2018).

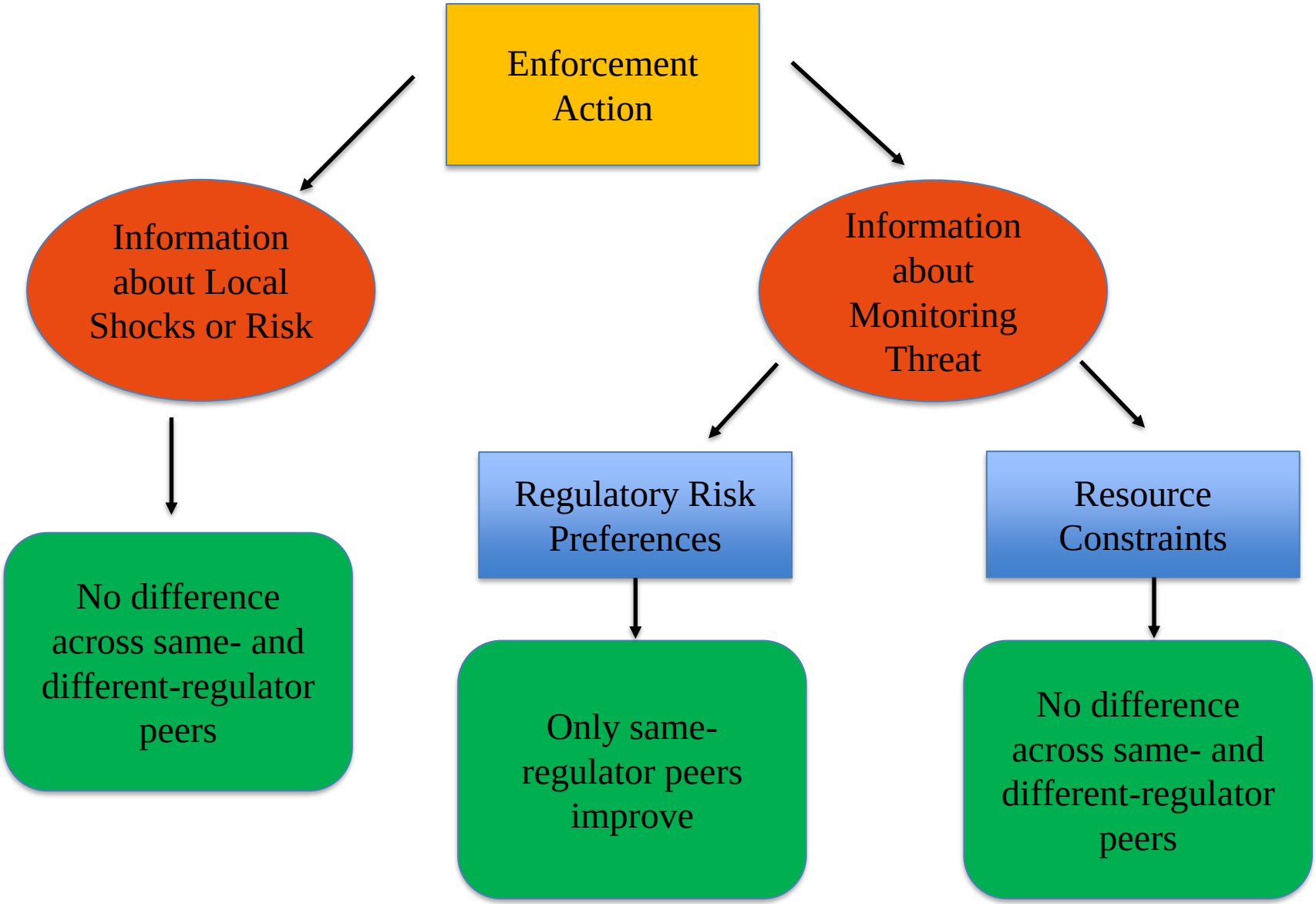
Peers with Same Regulator

Peers with Different Regulator

New Information to Peers



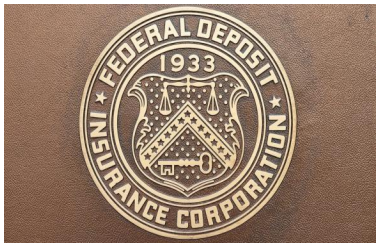
Our Hypotheses



Enforcement Actions

Bank Enforcement Actions	Individual Enforcement Actions
Cease and Desist (S)	Cease and Desist Against a Person
Prompt Corrective Action (S)	Fine Levied Against a Person
Formal Agreement/Consent Order (S)	Other Actions Against a Person
Call Report Infraction	Restitution by a Person
Deposit Insurance Threat	Sanctions Against Personnel
Formal Memo of Understanding	
Hearing Notice or Other Action	
Order Requiring Restitution	
Other Fines	
Sanctions Due to HMDA Violation	

Regulator Distribution



	FDIC	OCC	FRS
Full Sample	11,469	6,378	2,633
Enforced Banks	576	132	53
Peer Banks	2,219	1,283	457

As of 2019, the FDIC supervised 3,459 institutions, the OCC supervised 1,115, and the FRS supervised 788.

Empirical Design

$$Y_{i,t} = \beta_1 Treated_i + \beta_2 Post_t + \beta_3 Treated_i \, x \, Post_t + \delta X_{i,t} + \mu_i + \gamma_{st} + \epsilon_{i,t}$$

- Post = 1 in the three years (12 quarters) after the enforcement action quarter
- Treated = 1 if the peer bank has the same regulator as the enforced bank
- Controls: the ratio of total loans, net income, non-performing loans, core deposits, liquidity, loan loss reserves, and non-interest income to total assets
- Bank-State and Date fixed effects

Univariate Evidence

	Post	Pre	Difference
Same Regulator	9.792	9.665	0.127***
Different Regulator	9.611	9.693	-0.082*
	0.181***	-0.028	0.209***

Main Results

	$\frac{Total\ Equity\ Capital_t}{Total\ Assets_t}$	
	(1)	(2)
$Post_t\ x\ Treated_i$	0.220**	0.195***
	(2.128)	(2.343)
N	88,257	88,257
Adjusted R-Squared	0.721	0.818
Bank Fixed Effects	Yes	Yes
State x Date Fixed Effects	Yes	Yes
Controls Included	No	Yes

Regulatory Importance: Enforced Banks

- Two alternative predictions:
  - High importance => resource constrained => lower monitoring threat
  - High importance => signaling => higher monitoring threat

- Regulatory importance (Hirtle et al. 2019): Rank bank total assets by state, regulator, and year.

Importance of Enforced Banks

	$\frac{Total\ Equity\ Capital_t}{Total\ Assets_t}$			
	Top Quart = 1	Top Quart = 1	Top Quart = 0	Top Quart = 0
	(1)	(2)	(3)	(4)
$Post_t\ x\ Treated_i$	-0.196	-0.080	0.326***	0.198**
	(-1.034)	(-0.567)	(2.581)	(1.987)
N	21,036	21,036	67,067	67,067
Adjusted R-Squared	0.774	0.843	0.714	0.820
Bank Fixed Effects	Yes	Yes	Yes	Yes
State x Date Fixed Effects	Yes	Yes	Yes	Yes
Controls Included	No	Yes	No	Yes

Regulatory Importance: Peer Banks

- Two alternative predictions:
  - High importance => more scrutiny => higher monitoring threat
  - Low importance => requires less resources => higher monitoring threat

Importance of Peer Banks

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	$\frac{Total\ Equity\ Capital_t}{Total\ Assets_t}$	
	(1)	(2)
$Post_t\ x\ Treated_i\ x\ High\ Rank_i$	0.587***	0.670***
	(4.731)	(5.879)
$Post_t\ x\ Treated_i\ x\ Low\ Rank_i$	0.048	-0.026
	(0.389)	(-0.272)
N	88,257	88,257
Adjusted R-Squared	0.722	0.819
Bank Fixed Effects	Yes	Yes
State x Date Fixed Effects	Yes	Yes
Controls Included	No	Yes

Robustness

- Excluding enforcement action quarter
  - Consistent results
- Excluding enforcement actions from the 2008 – 2013 financial/banking crisis period
  - Increase in significance and magnitude
  - Easier to raise capital outside of crisis period

Takeaways

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- Enforcement actions convey useful information about the monitoring threat to peers, and consequently, has a deterrence spillover effect to the same-regulator peers.
- The positive spillover varies with the regulatory importance of the enforced and peer banks.
- An important implication is that regulators can maximize resources by issuing enforcement actions strategically.

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THANK YOU!