On Social Media Exposure and Bank Deposit Sensitivity to Fundamentals

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RESEARCH QUESTION

Does social media exposure amplify the sensitivity of bank deposits to fundamentals?

Do uninsured deposits respond more strongly to ROA at banks with greater YouTube visibility, while insured deposits remain unaffected?

CONCEPTUAL FRAMEWORK

$$\partial \Delta \text{Deposits}^{U} / \partial \text{ROA}_{i,t-1} = \beta_1 + \beta_2 \cdot \text{SME}_{i,t-1}$$

Central prediction: $\beta_2 > 0$

Limited Attention

- Algorithms push bank content into depositors' feeds
- Intensive margin: faster & more frequent signals
- Extensive margin: converts inattentive depositors into informed agents

Financial Unsophistication

- Creators translate complex data into simple narratives
- Lowers analytical barriers for depositors
- Binary "safe" vs "unsafe" framing triggers strong reactions

DATA & SAMPLE

YouTube Video–Bank Metadata (2017–2021)

- 555,219 video–bank observations via YouTube Data API
- 70 largest U.S. commercial banks
- English-language, U.S.-located, aggregated quarterly

Social Media Exposure (SME)

SME = YouTube Views / # Depositor Accounts

- Average attention per depositor
- Proxy for overall social media visibility
- Log-transformed in regressions

Bank Balance Sheet Data

- Call Reports (WRDS): ROA, deposits, capital, funding
- 1,300 bank–quarter observations (70 banks)
- RavenPack News Analytics for news coverage control

EMPIRICAL METHODOLOGY

Main Specification

$$\text{DepGrowth}_{i,t} = \alpha_i + \gamma_t + \beta_1 \text{ROA}_{i,t-1} + \beta_2 \text{SME}_{i,t-1} + \beta_3 (\text{ROA}_{i,t-1} \times \text{SME}_{i,t-1}) + \delta' X_{i,t-1} + \varepsilon_{i,t}$$

β_3 is the coefficient of interest

- Bank FE (α_i) + Quarter FE (γ_t)
- Controls: C&I loans, wholesale funding, capital, size, deposit share, core deposit rate
- %Uninsured × ROA, News Coverage × ROA
- SE clustered at bank level

MAIN RESULTS

SME amplifies uninsured deposit sensitivity to ROA by 0.462 pp (p < 0.05); insured deposits remain unaffected.

	(1)	(2)	(3)	(4)
SME × ROA	0.175	**0.429****	**0.354****	**0.462****
Controls	No	Yes	No	Yes
%Unins. × ROA	No	No	Yes	Yes
Bank & Qtr FE	Yes	Yes	Yes	Yes
R^2 / N	.079 / 1,226	.132 / 1,226	.140 / 1,153	.176 / 1,153

*Dep. Var: Uninsured Deposit Growth. SE clustered at bank level. * p<.10, ** p<.05*

Insured Deposits: No Effect

SME × ROA is small and insignificant across all specifications. Insured deposits are "sleepy money" — insensitive to fundamentals and social media.

ECONOMIC MAGNITUDE

−5.65 pp	−0.60 pp	≈ 4.95 pp
10th pctl SME exposure	90th pctl SME exposure	Δ Sensitivity (P90 − P10)

Moving from low- to high-exposure banks raises responsiveness of uninsured deposits to ROA by ~4.95 pp per σ(ROA).

ROBUSTNESS

1. News Coverage Control

News Coverage × ROA is insignificant; SME × ROA retains sign, magnitude, and significance → distinct channel from traditional media.

2. Bank Characteristic Interactions

Adding Size × ROA, Deposit Share × ROA, Capital × ROA, Wholesale × ROA — SME × ROA remains significant (β = 0.378**).

3. System-Wide Performance

Avg ROA × SME significant at 10% (β = 0.200) → amplifies sensitivity to system-wide fundamentals.

4. Depositor Reverse Control

Controlling for 1/(# depositor accounts) does not affect main results → no mechanical confound.

KEY CONTRIBUTIONS

1. **Depositor Behavior & Bank Transparency**
   First to document that social media visibility strengthens the link between fundamentals and uninsured funding flows.
2. **Market Discipline vs. Coordination Risk**
   Shows social media can discipline rather than destabilize in normal times, making deposit flows more selective.
3. **Information Channel Identification**
   Social media is an independent attention channel, distinct from traditional news coverage (WSJ, Bloomberg, Reuters).

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