

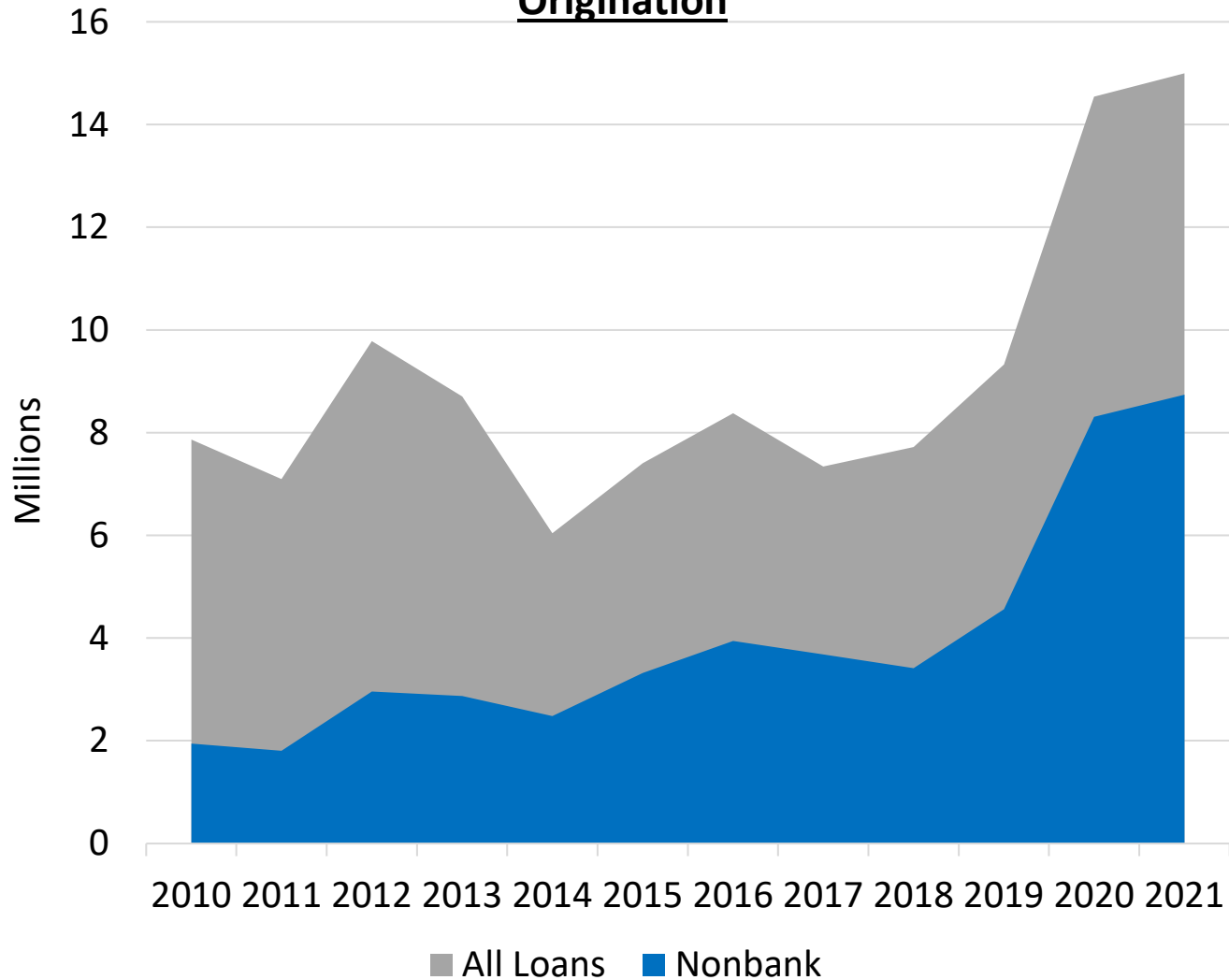
Risk in the shadows: Leverage and liquidity in nonbanks

Taylor Begley, University of Kentucky
Kandarp Srinivasan, Northeastern University

September 2023

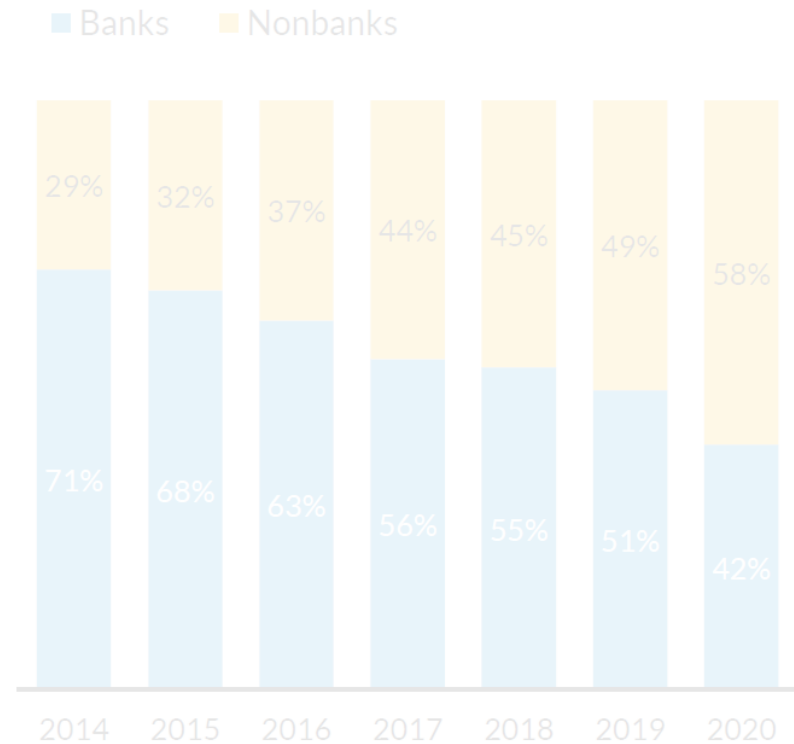
Nonbanks now lead in mortgage origination & servicing

Origination



Servicing

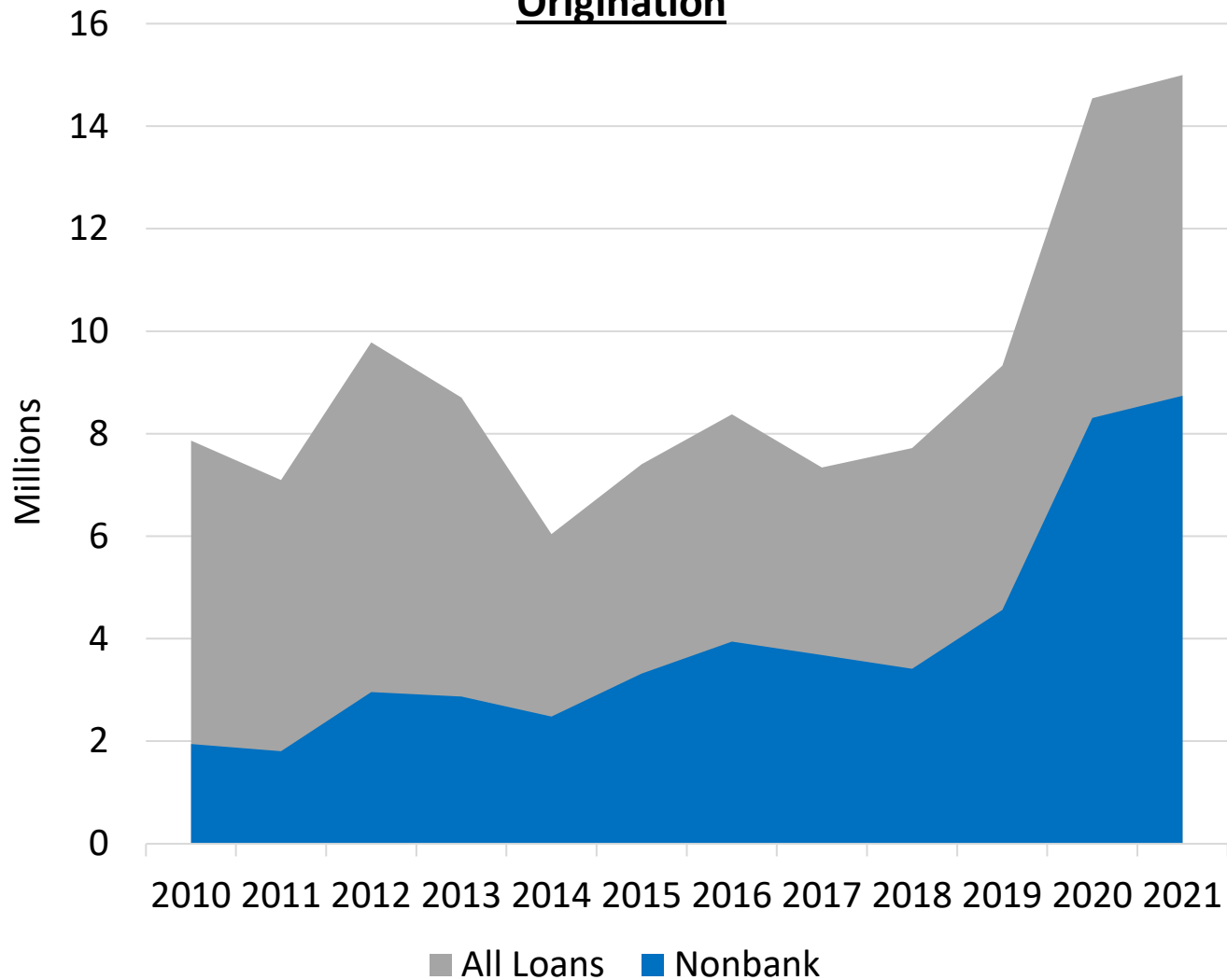
Nonbanks' share of total UPB



Source: Urban Institute calculations based on Inside Mortgage Finance

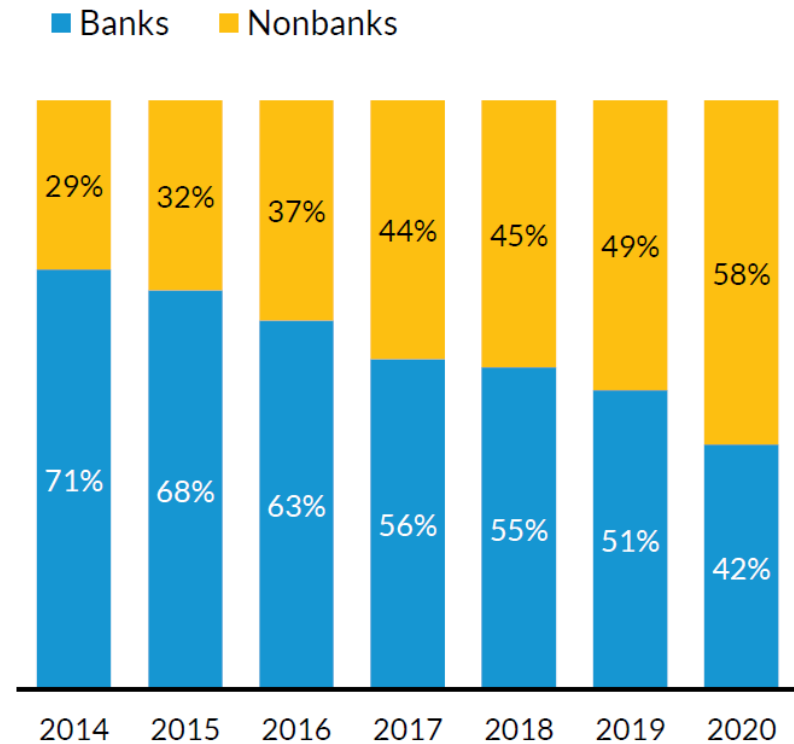
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Causes for concern?

Relatively little is known about *firm-level* nonbank behavior

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Research Questions

- How risky are nonbank mortgage companies?
- To what extent are market forces governing these lightly-regulated firms?

Data

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Source:

- California Department of Financial Protection & Innovation
- All firms that originate or servicing at least one loan in CA.

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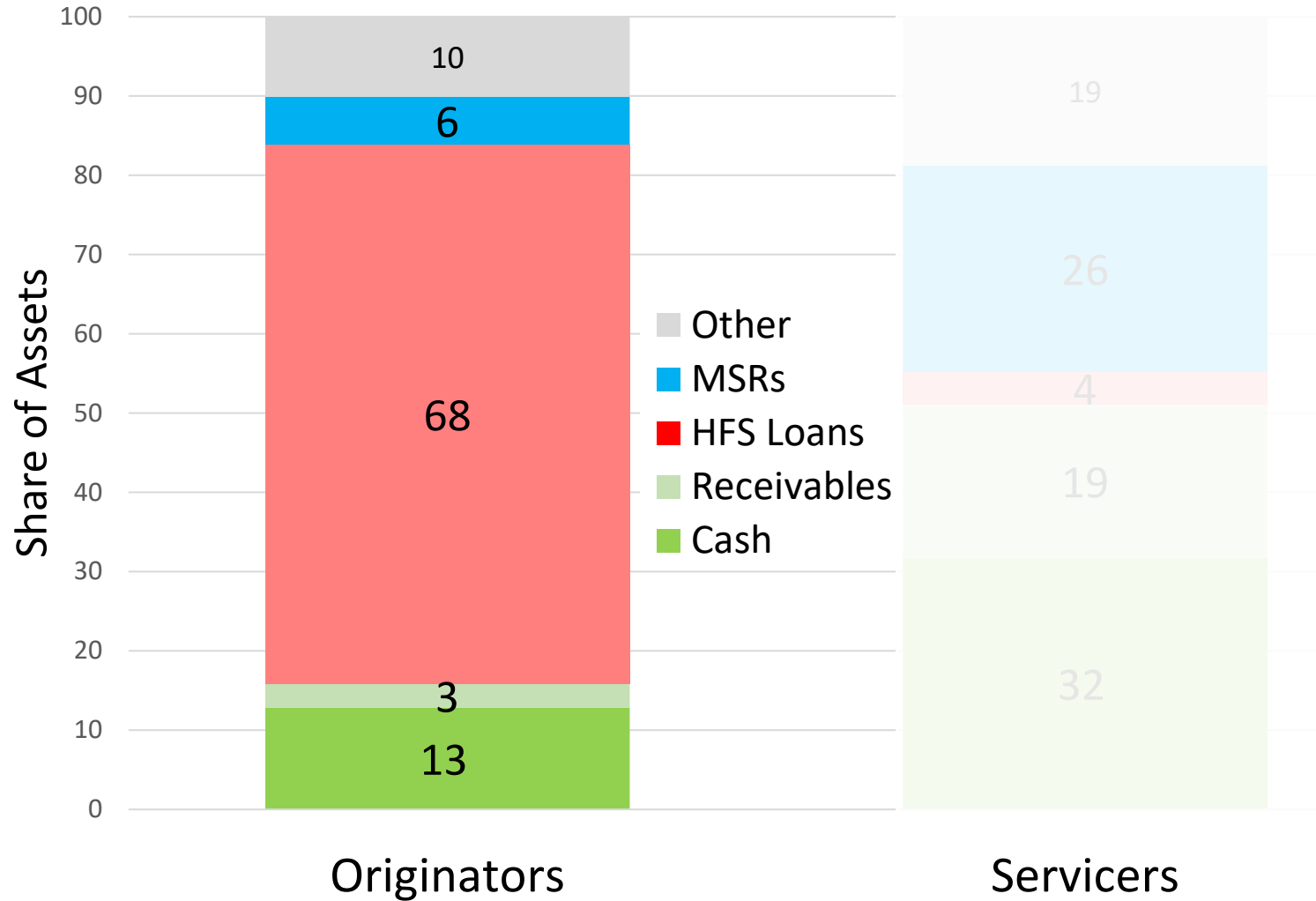
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Coverage:

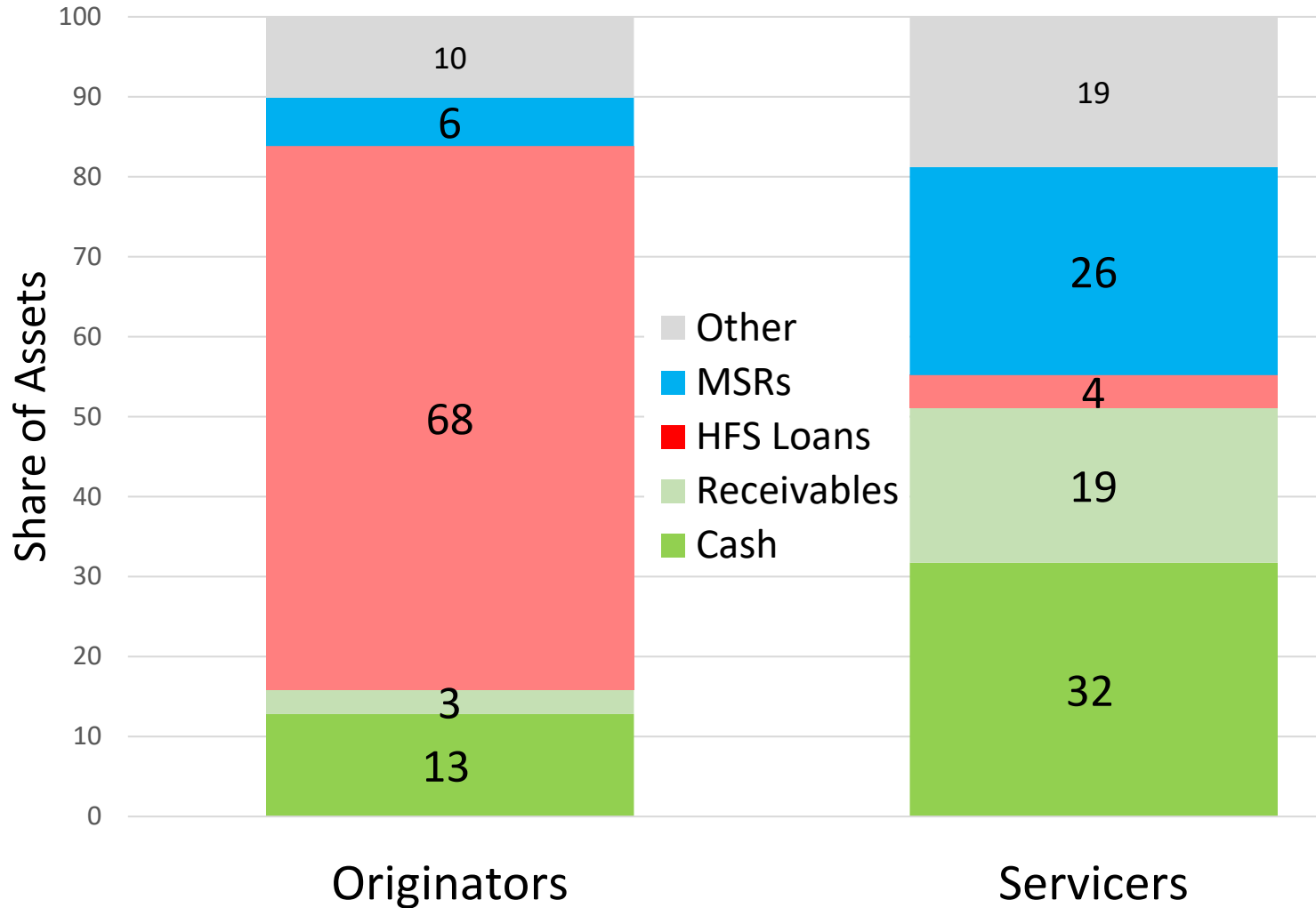
- Detailed *company-level* financial statements
- 527 firms from 2011q1-2021q3
- 80%+ of all *nationwide* nonbank originations by the end of the sample

Characterizing Business Models

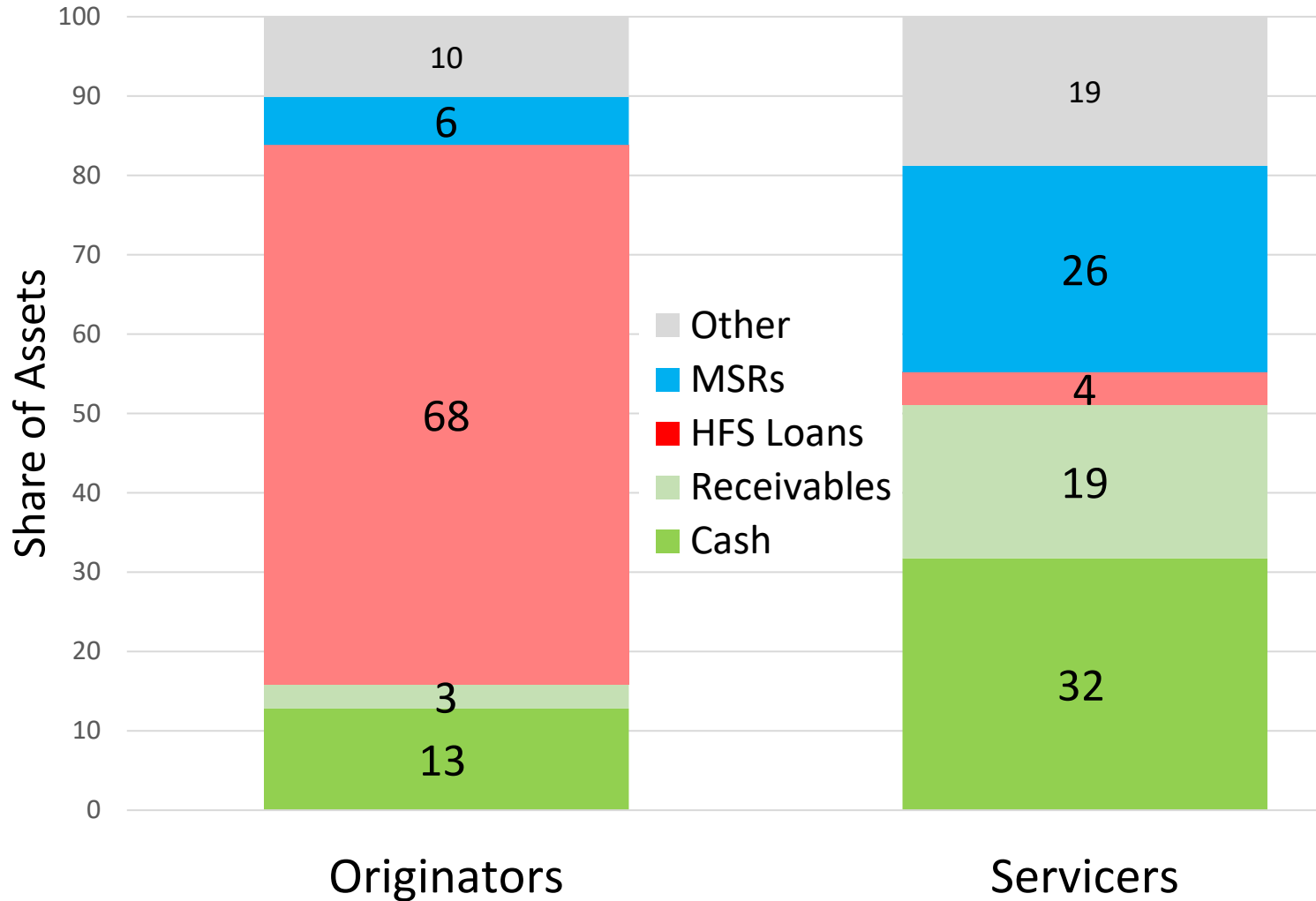
Comparing Business Models: Balance Sheet



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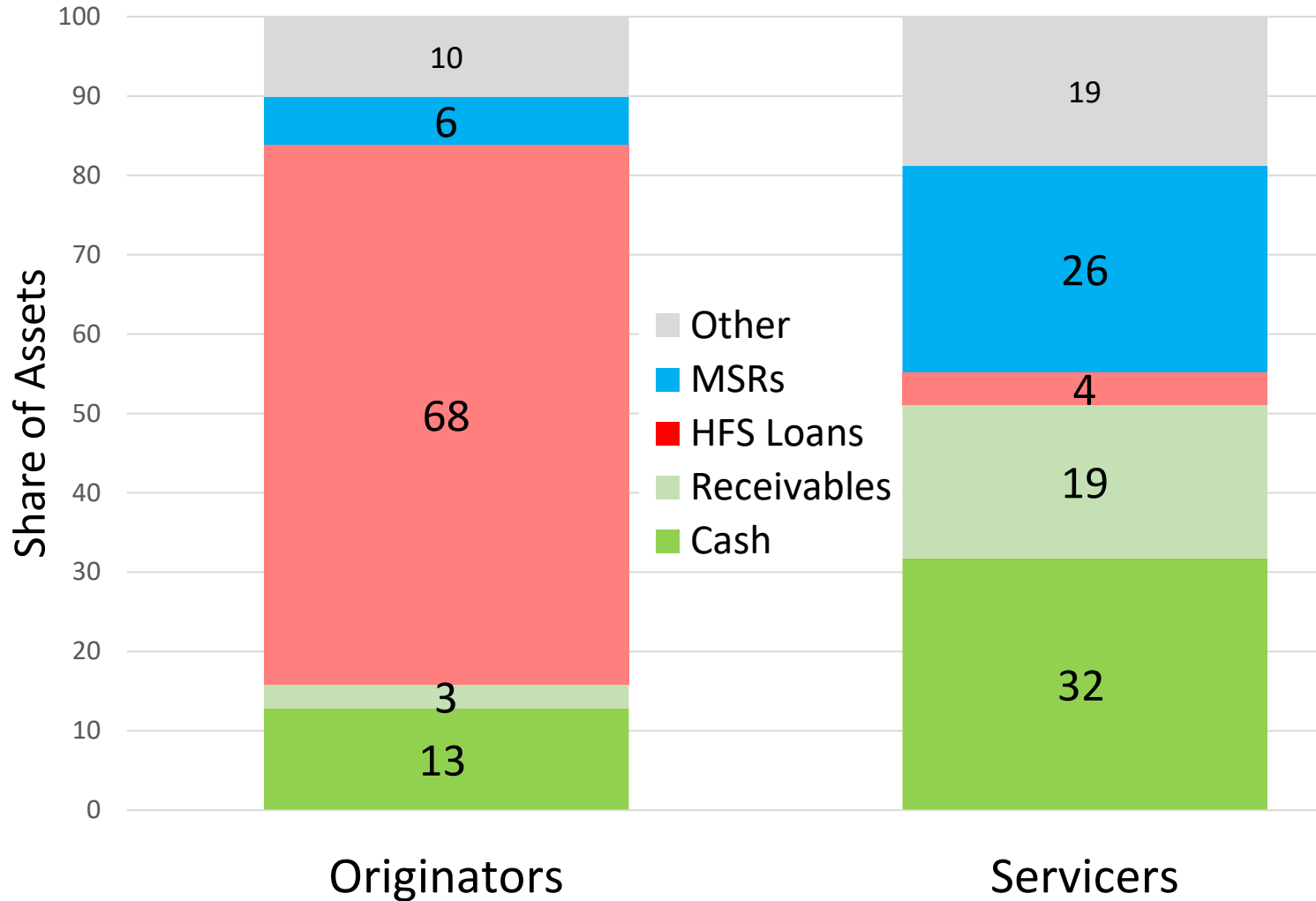
Comparing Business Models: Balance Sheet



Originators vs Servicers

- Debt/Assets
 - 75% vs 47%

Comparing Business Models: Balance Sheet

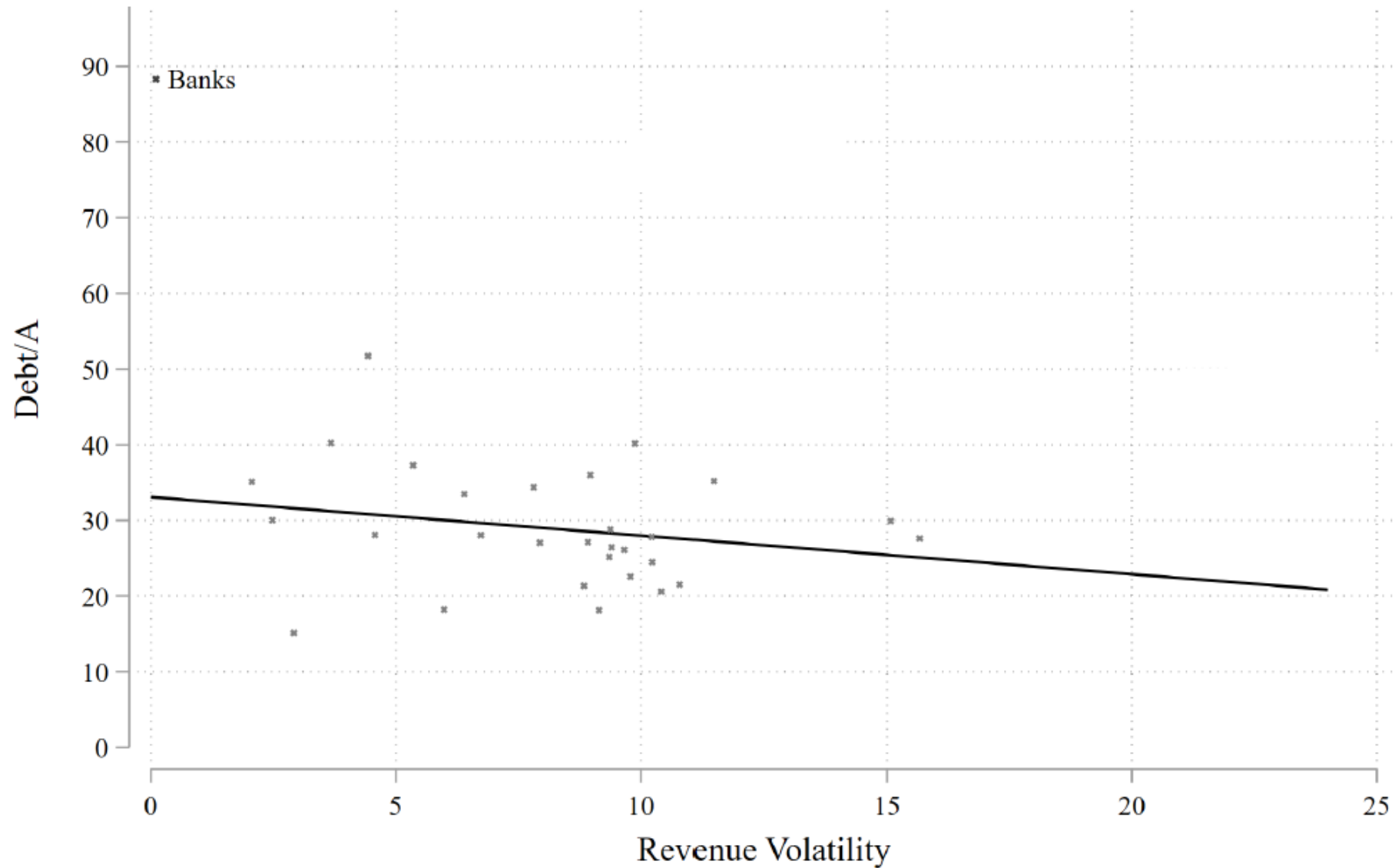


Originators vs Servicers

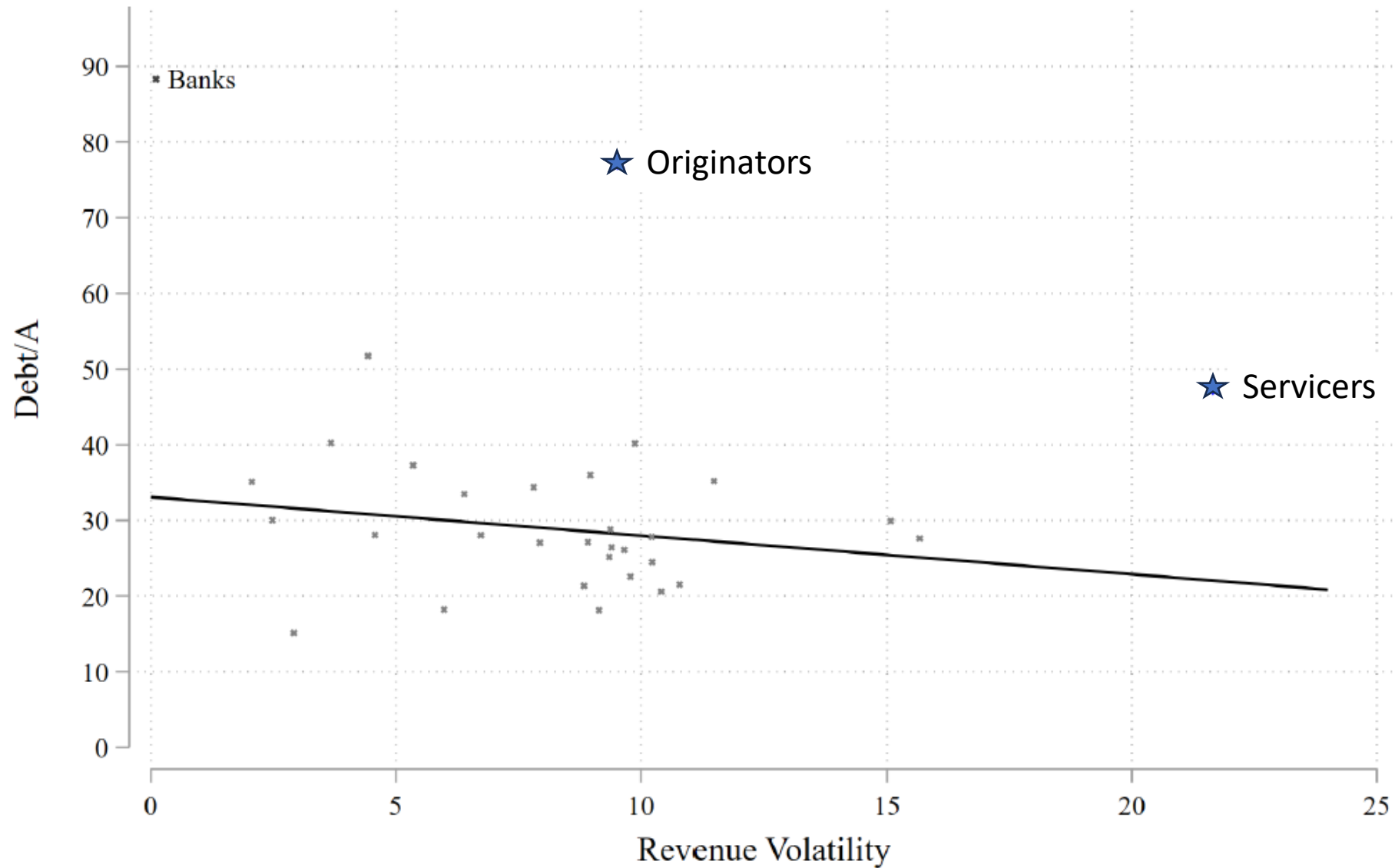
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How risky is nonbank business?

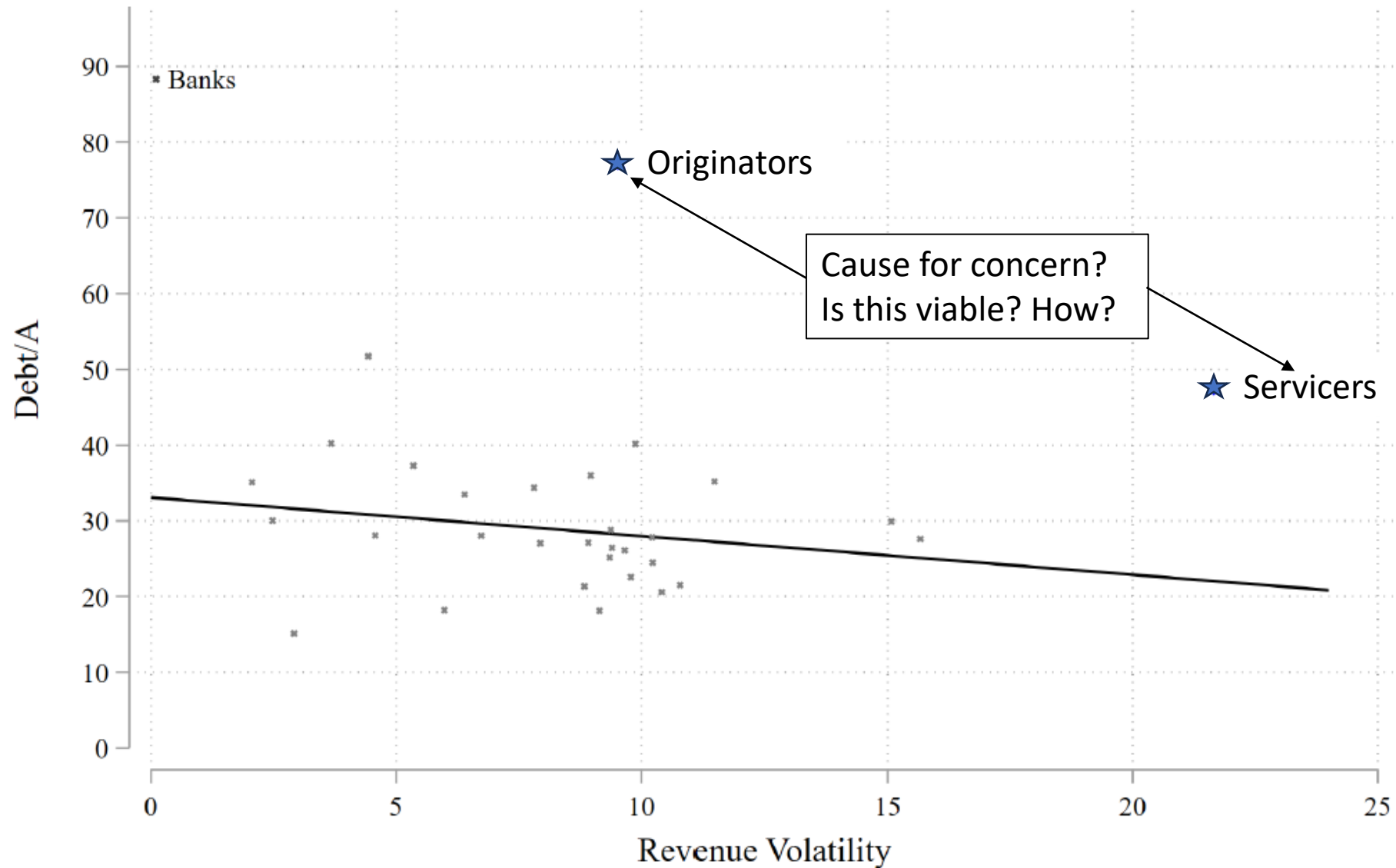
Business volatility and debt: a puzzle?



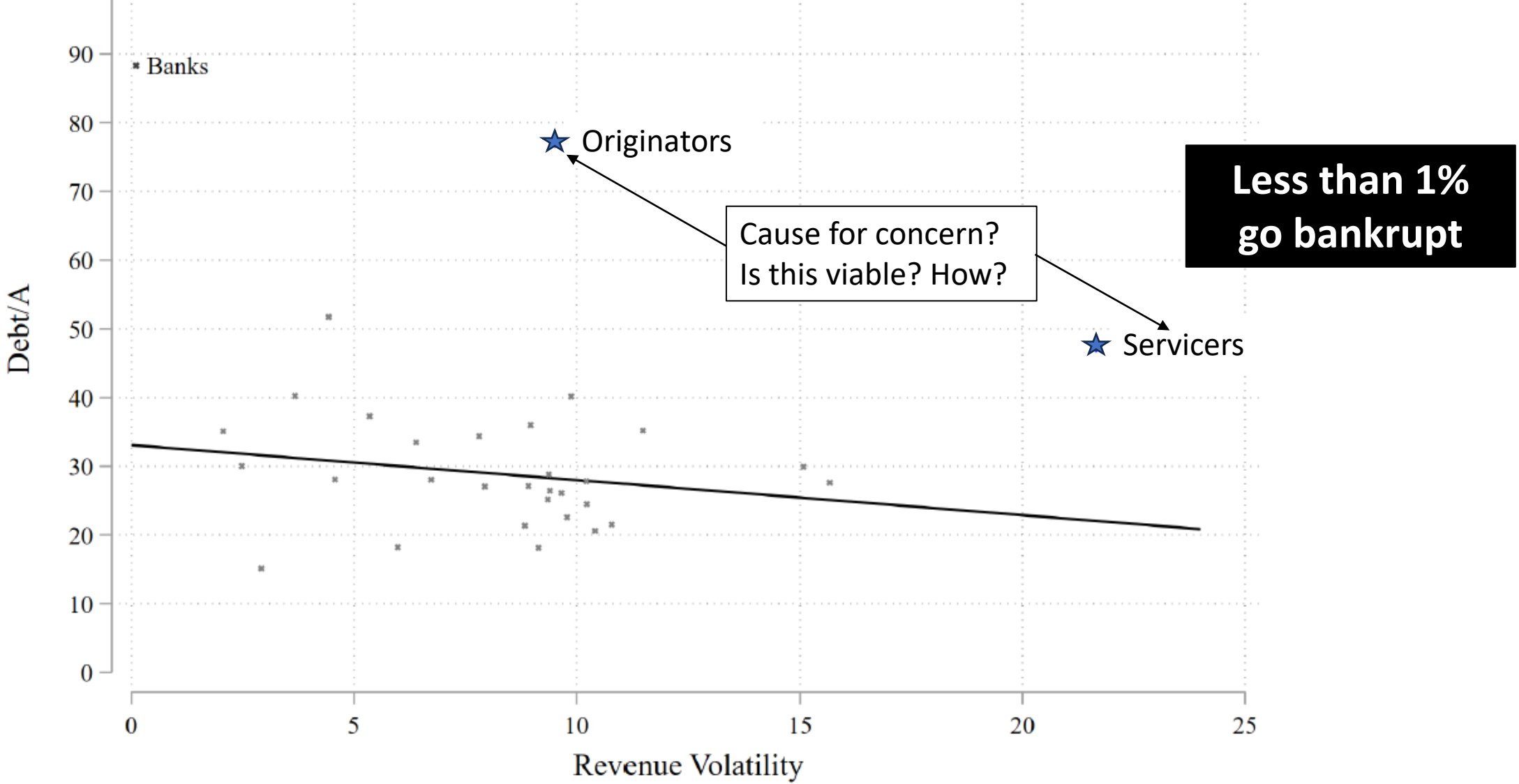
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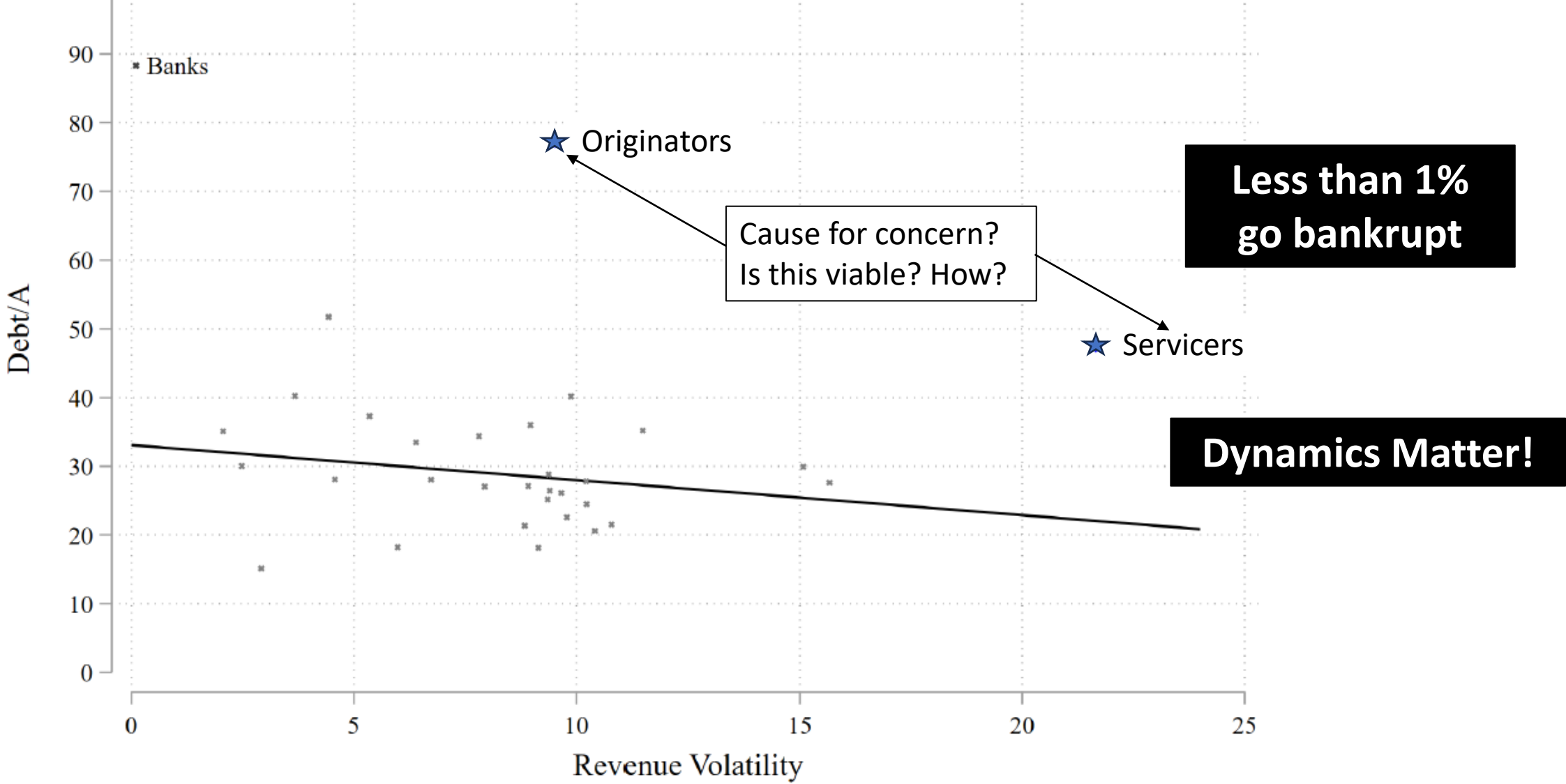
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Business volatility and debt: a puzzle?



Nonbank Flexibility

Operating and Financial Flexibility

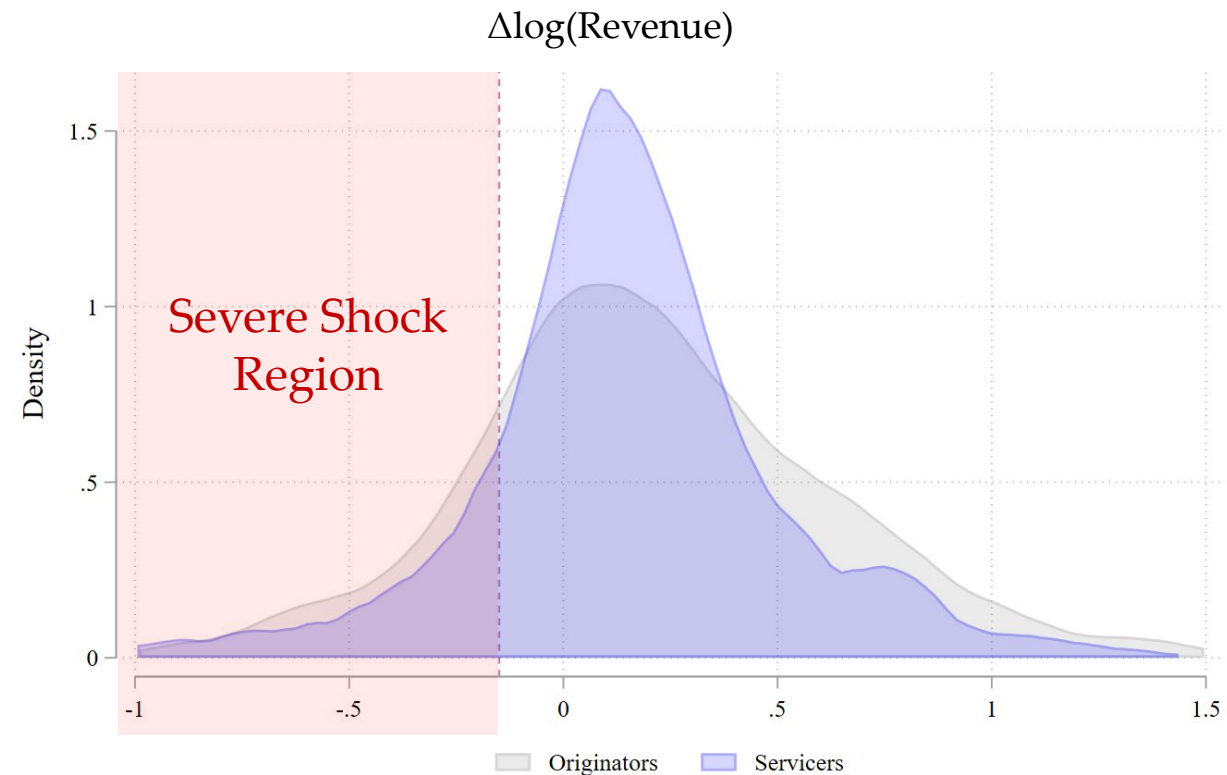
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Operating and Financial Flexibility

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- Aims:
 1. Estimate operating flexibility
 - i.e., variable vs. fixed costs
 2. Estimate financial flexibility

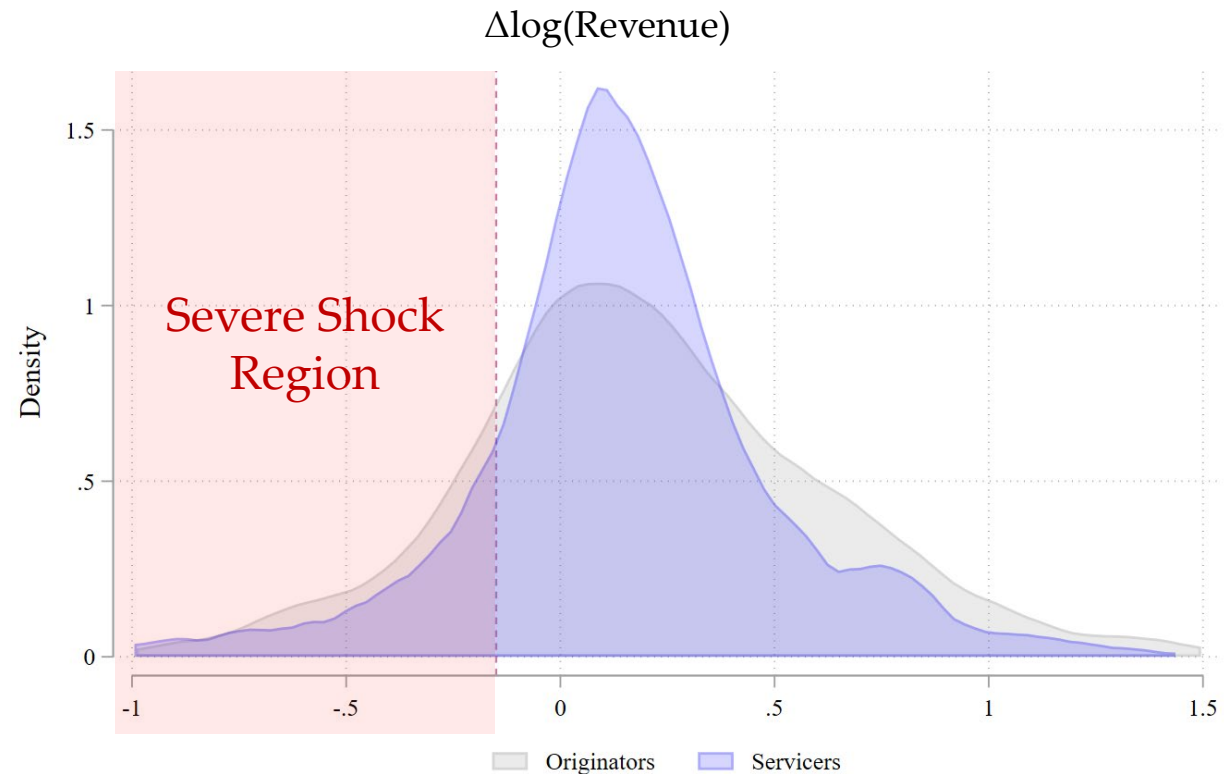
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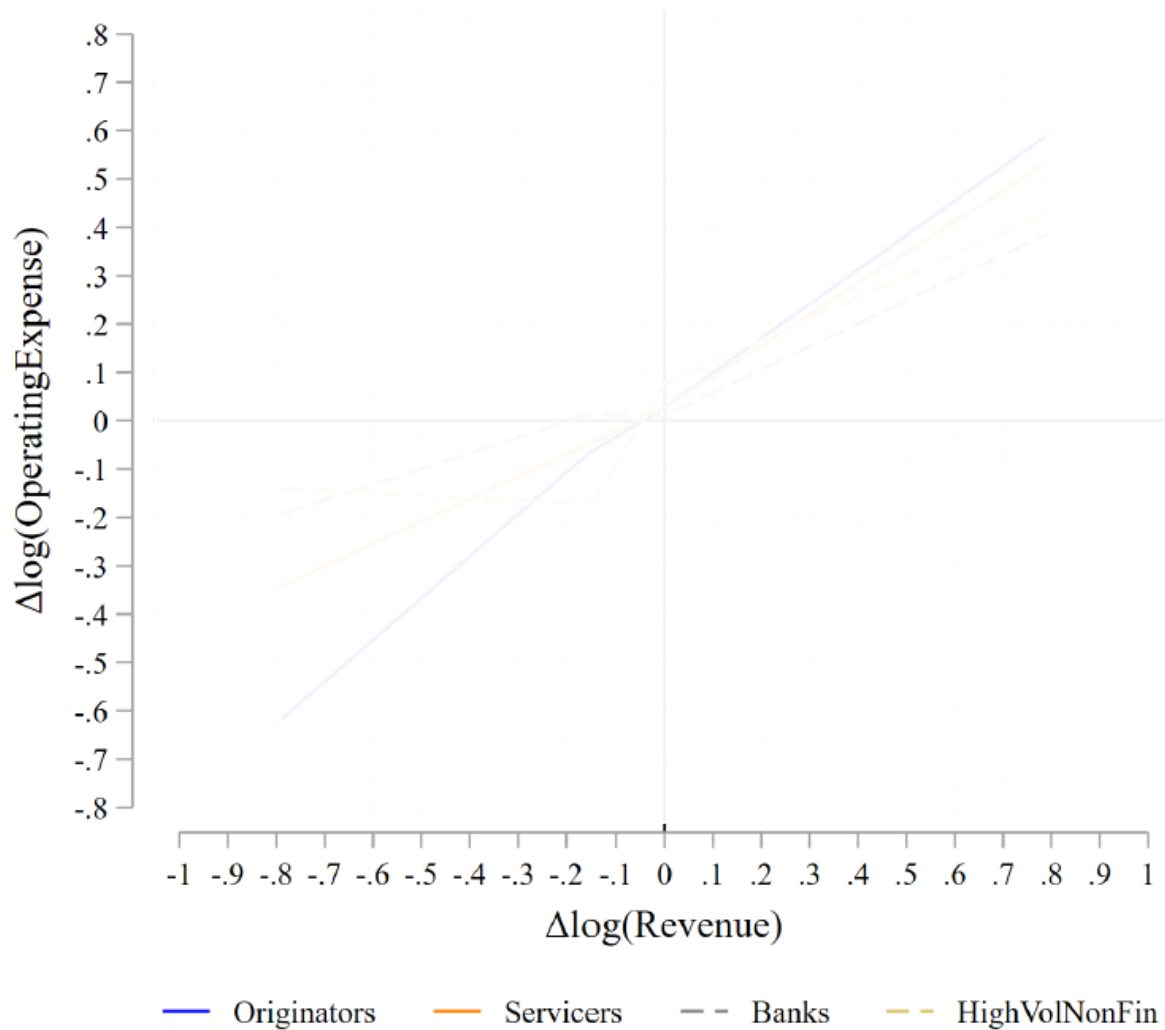


Operating and Financial Flexibility

- What is the cost structure for nonbank mortgage companies?
- Aims:
 1. Estimate operating flexibility
 - i.e., variable vs. fixed costs
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- Spline regression
 - regress $\Delta\log(\text{Costs})$ on $\Delta\log(\text{Revenue})$
 - Focus on Severe Shocks Region
 - $\Delta\log(\text{Revenue}) < -0.15$



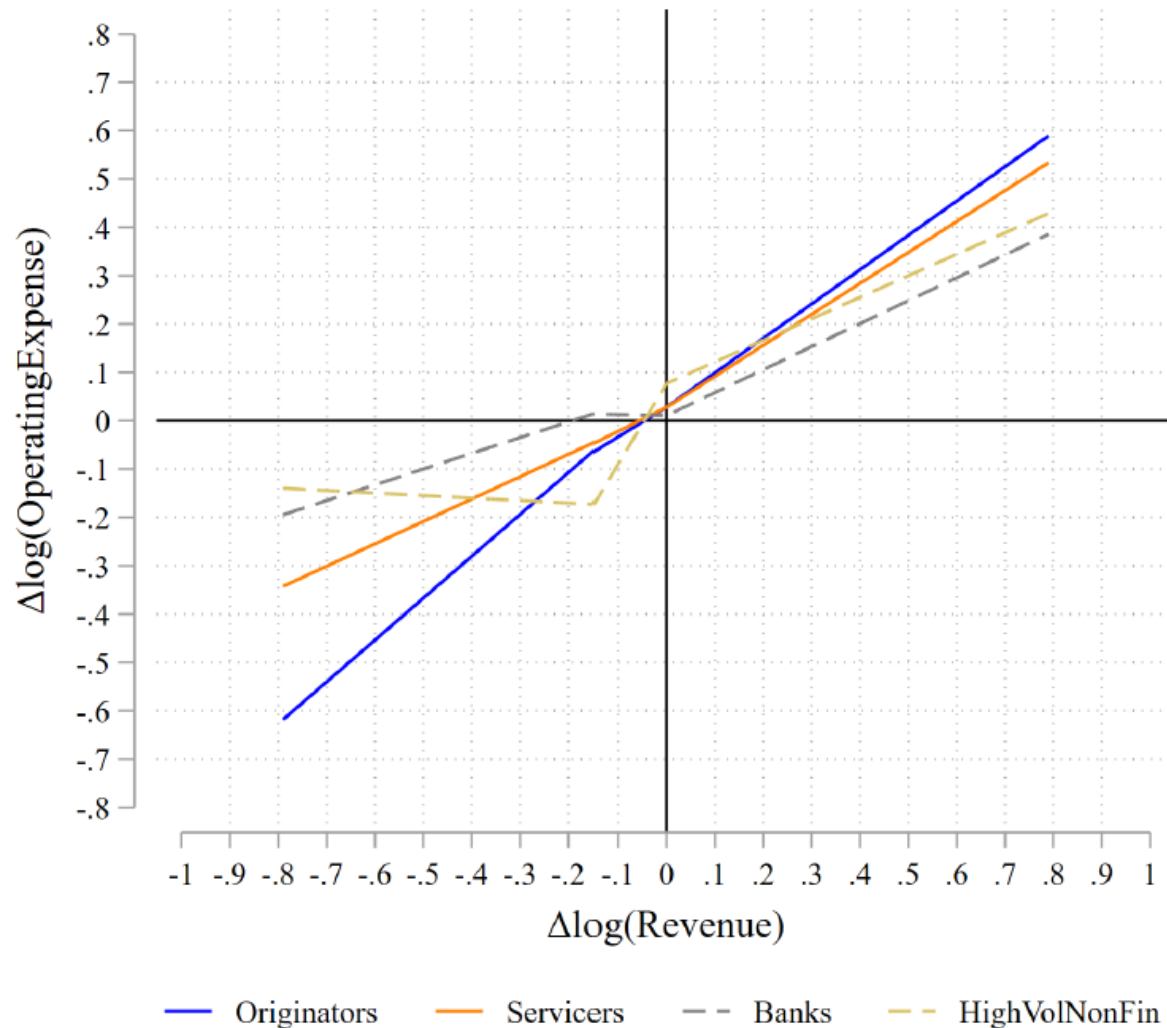
Operating Flexibility



$\Delta\log(\text{OperatingCosts})$ on $\Delta\log(\text{Revenue})$

Severe Shock Region Estimates:

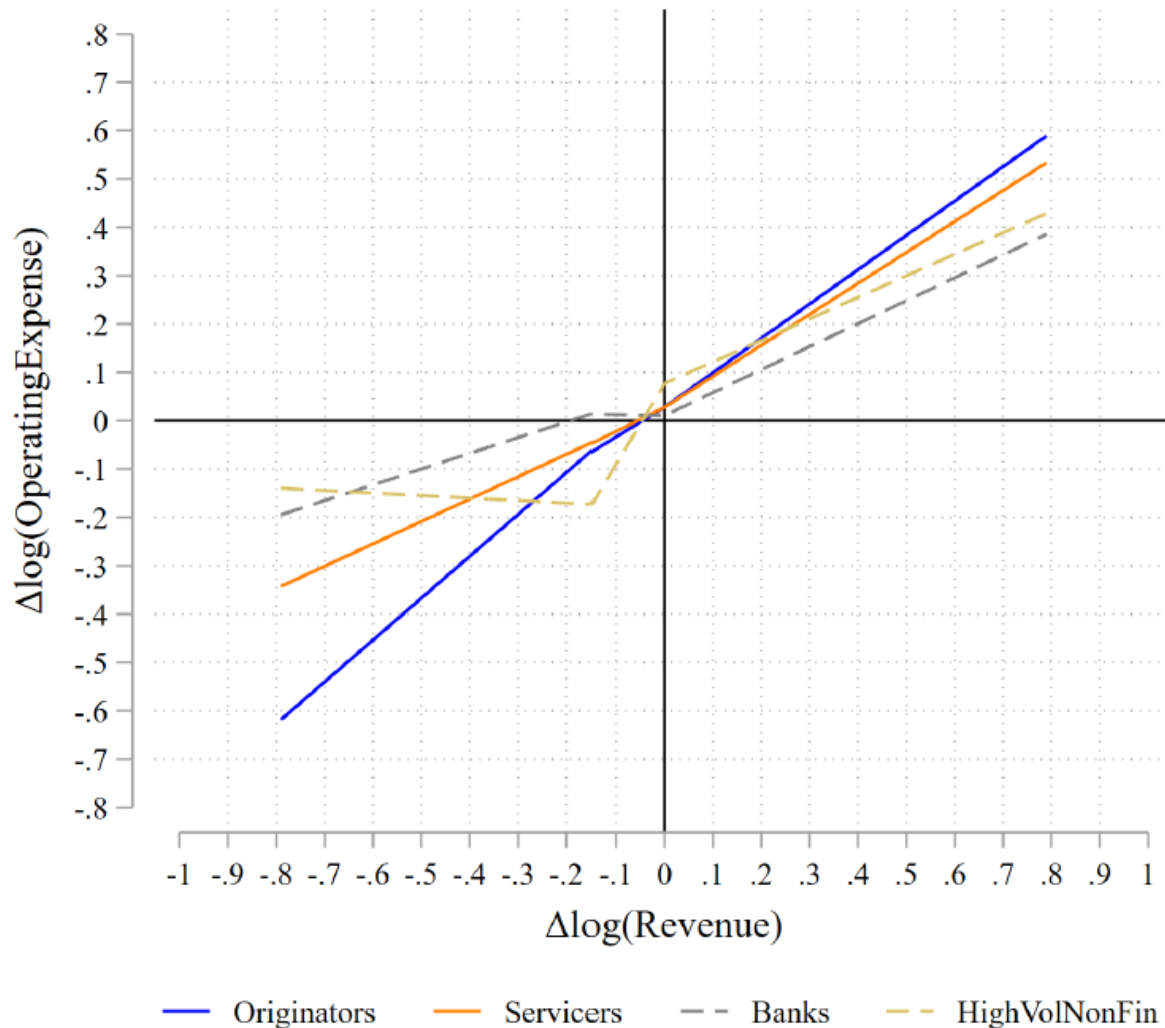
Operating Flexibility



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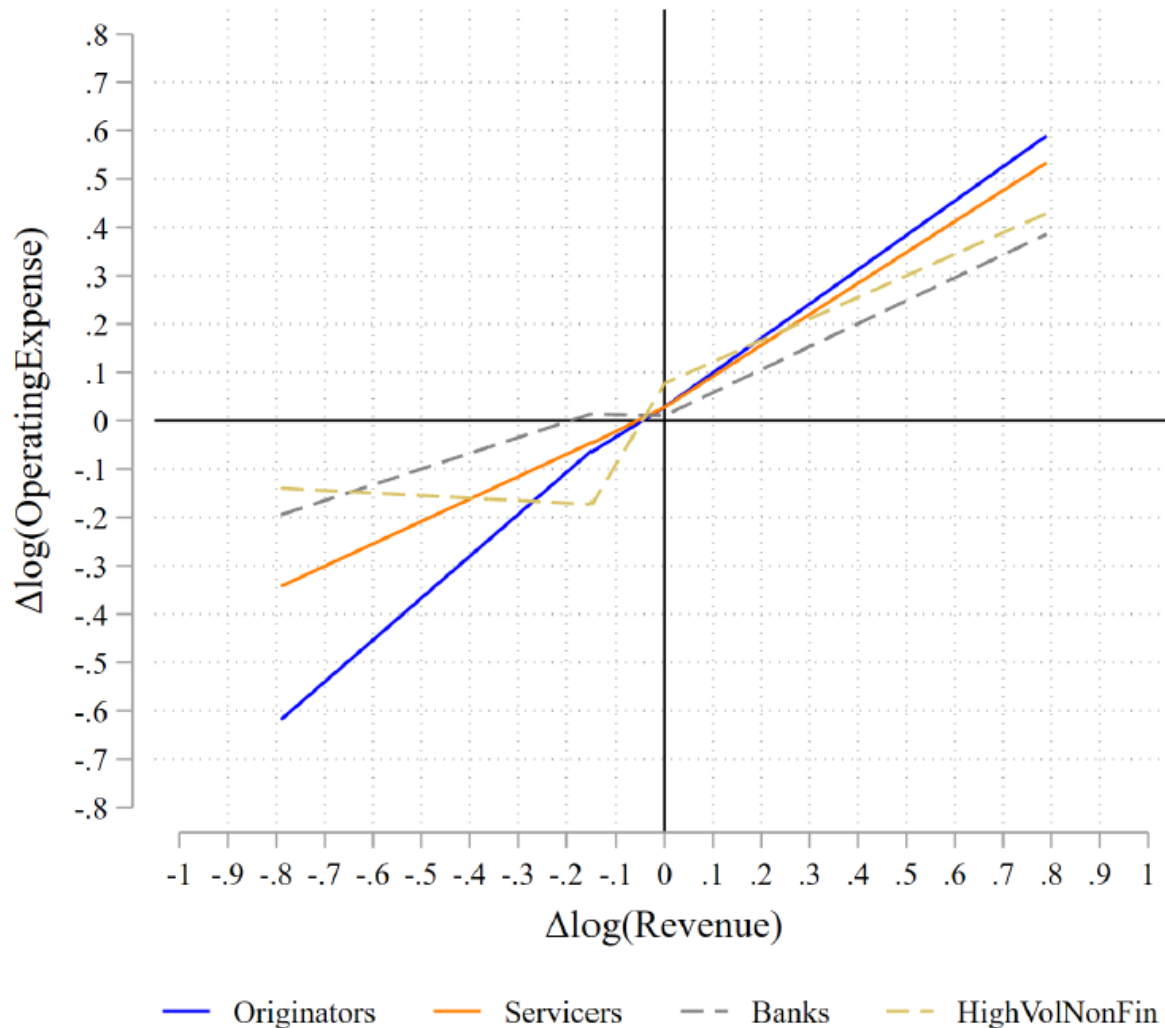


$\Delta\log(\text{OperatingCosts})$ on $\Delta\log(\text{Revenue})$

Severe Shock Region Estimates:

Firm Type	Revenue Shock Sensitivity
Originators	0.87***
Servicers	0.46**
Banks	0.33***
HighVol NonFinancials	-0.05

Operating Flexibility

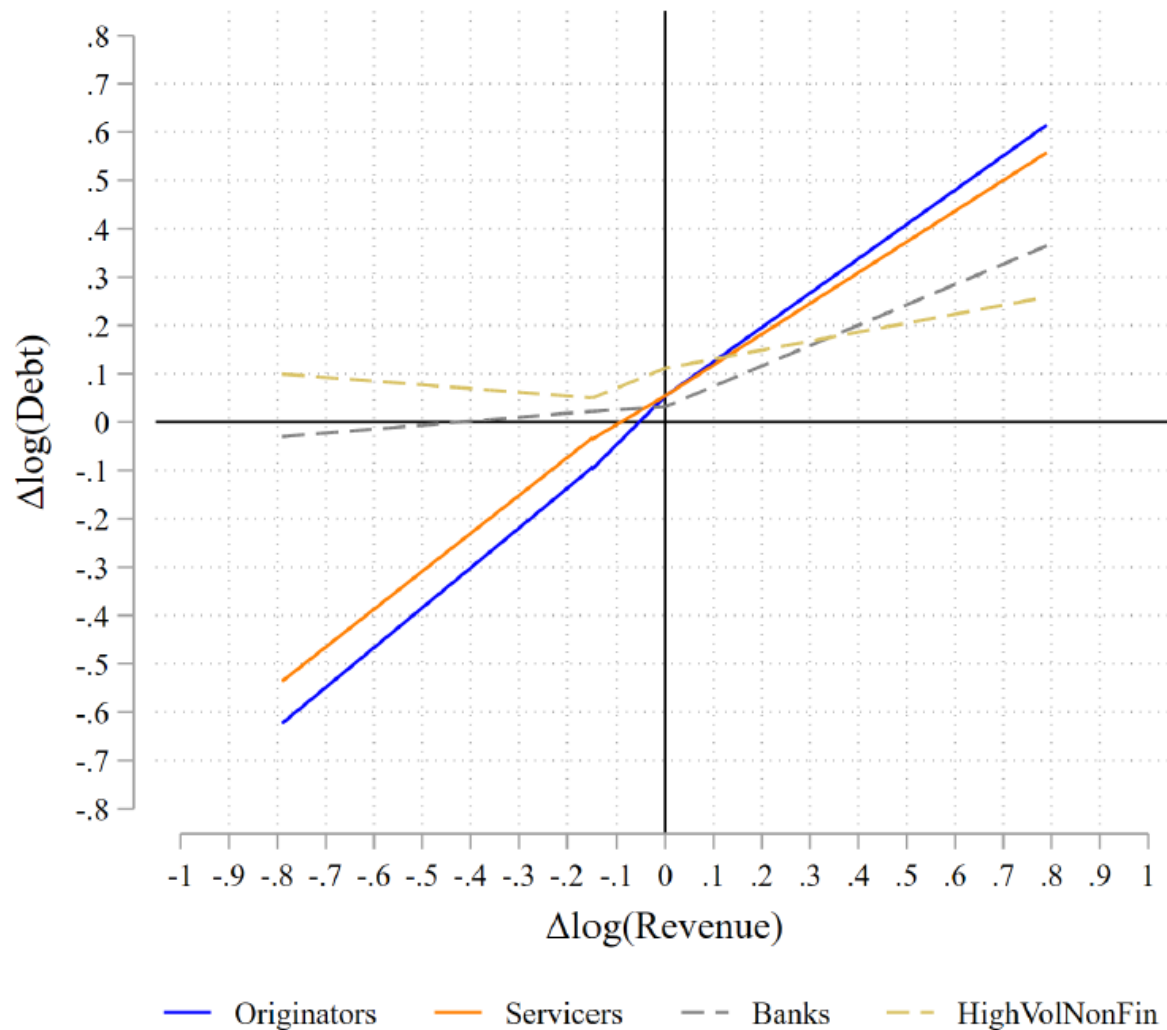


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Debt Flexibility

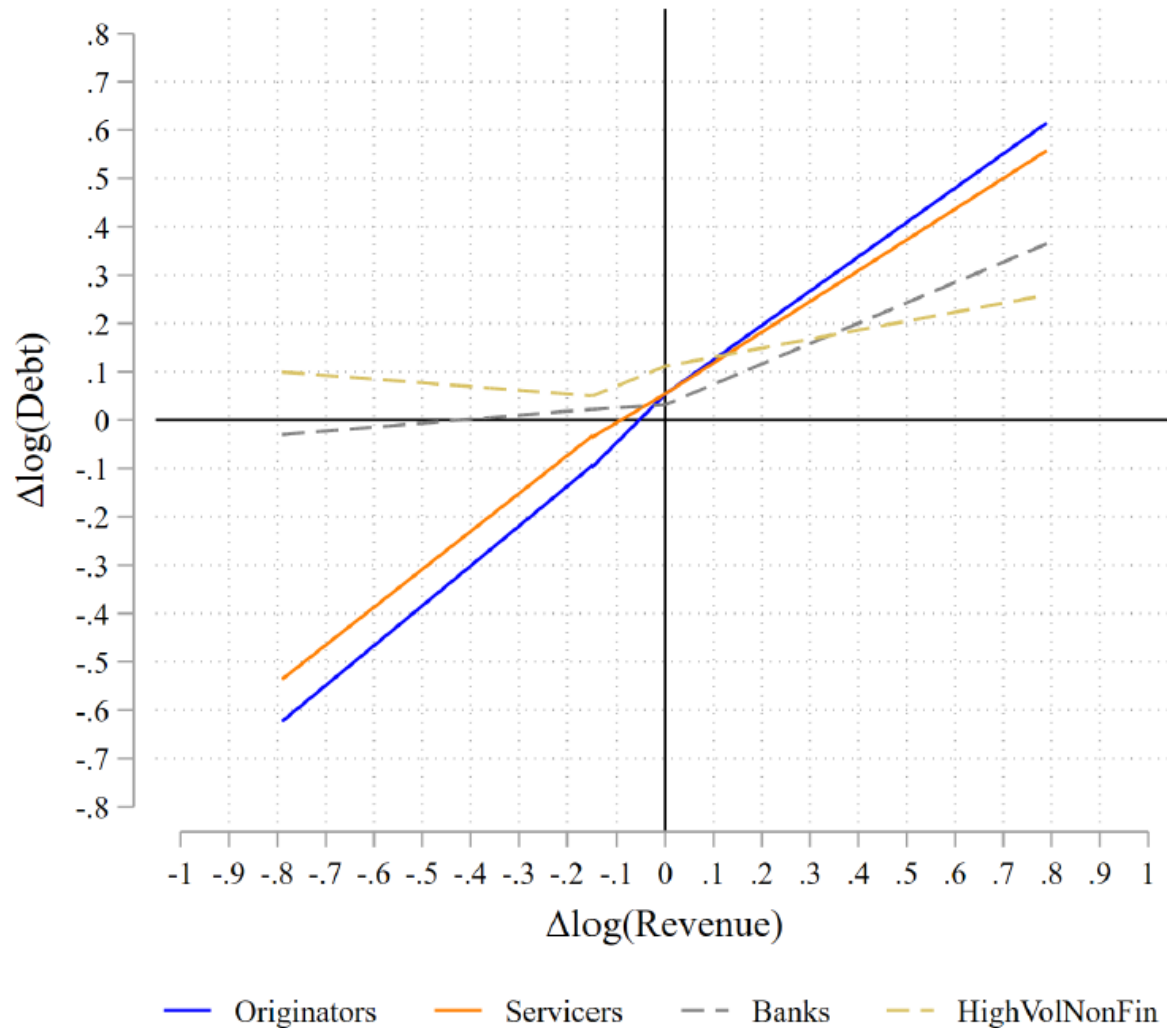


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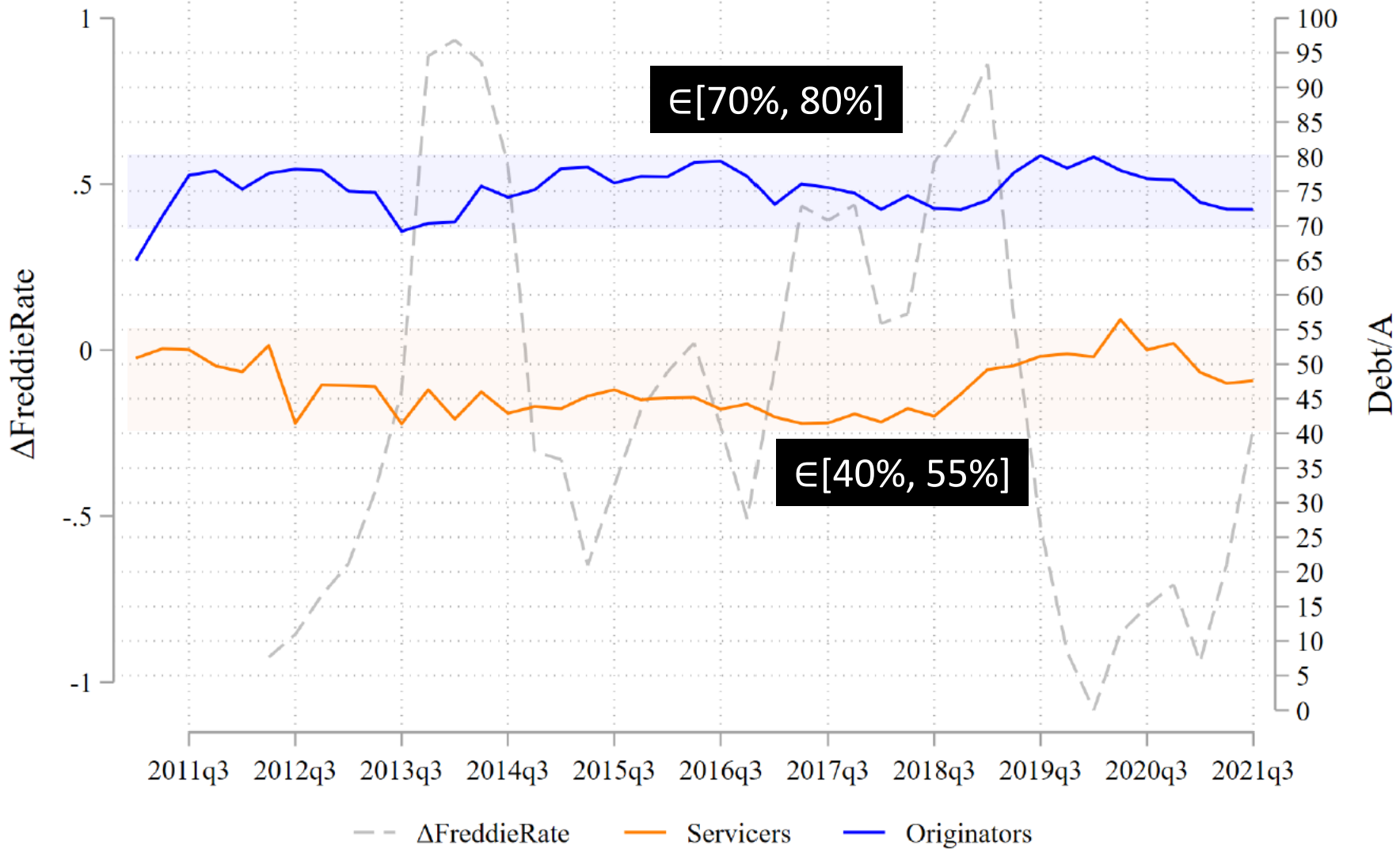


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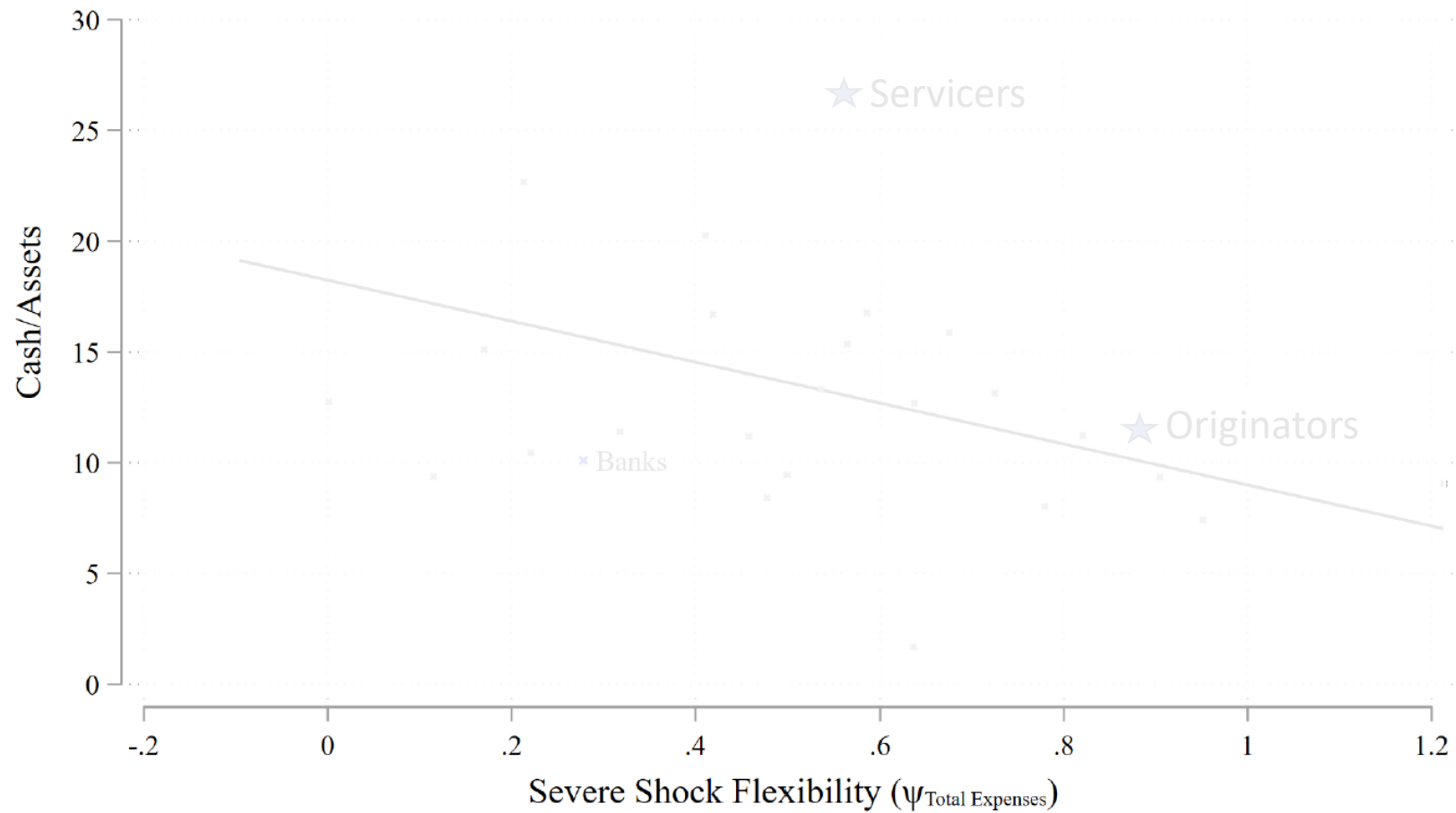
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Debt/Assets are stable over time

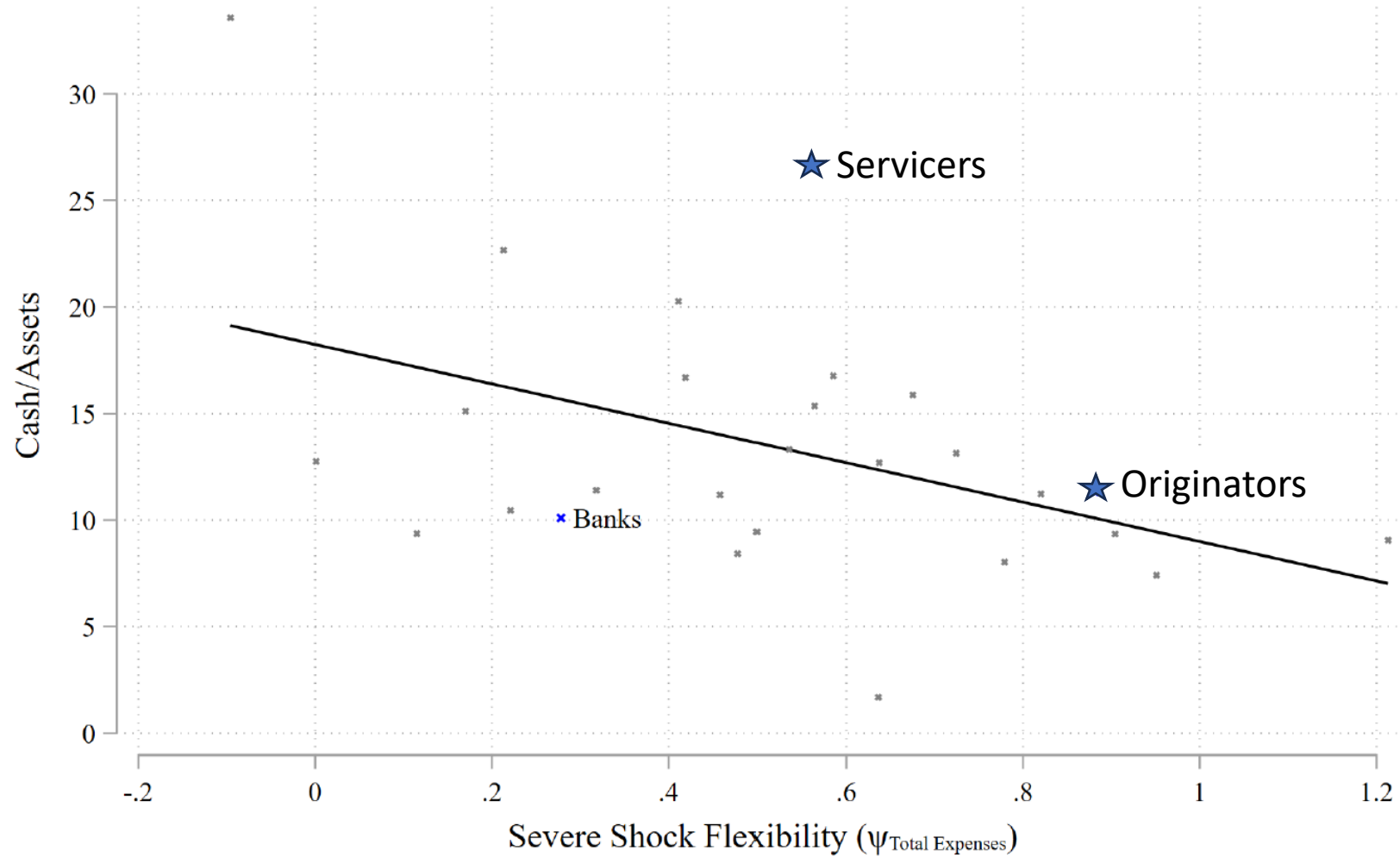


Liquidity

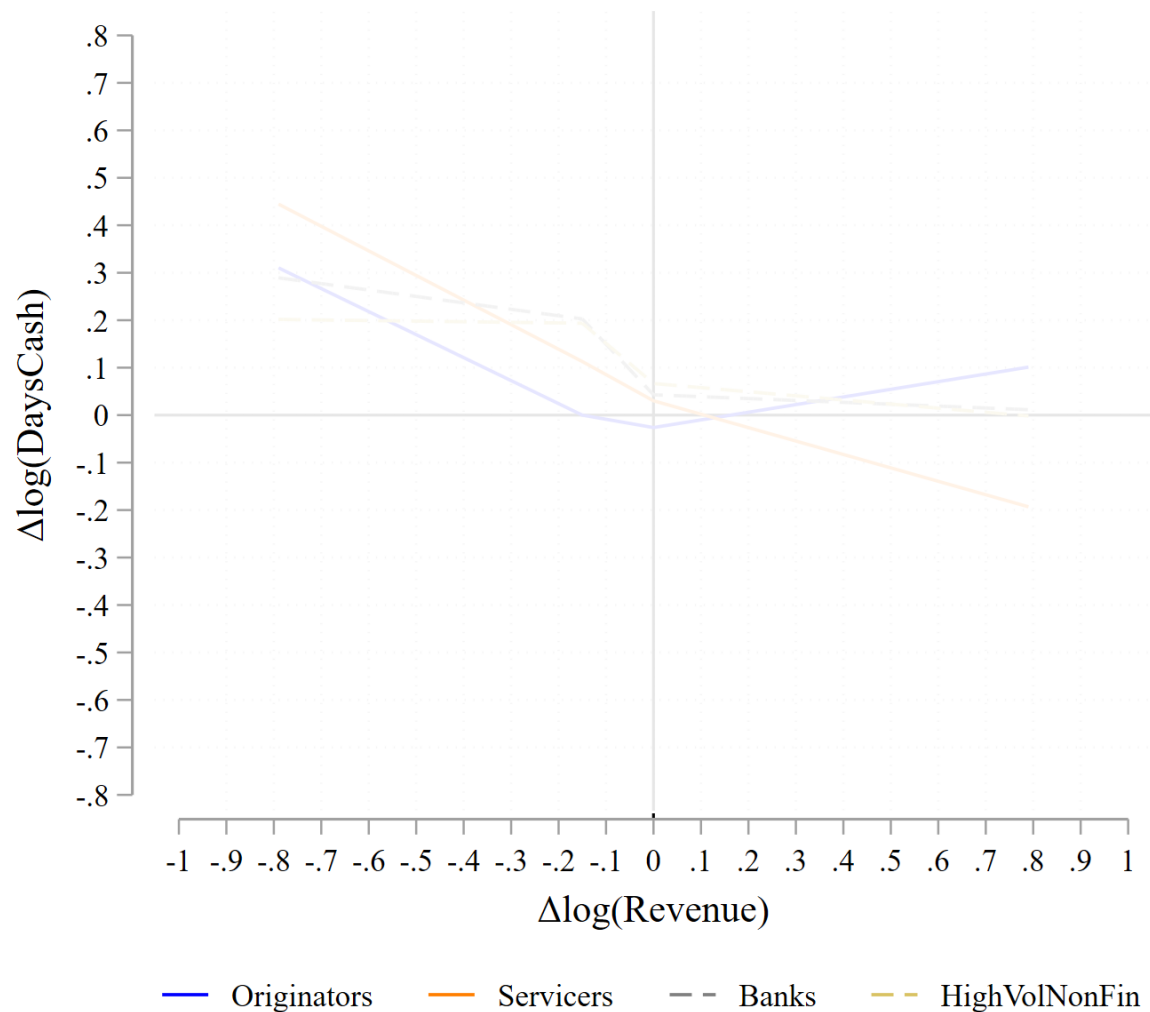
Flexibility and Cash Holdings



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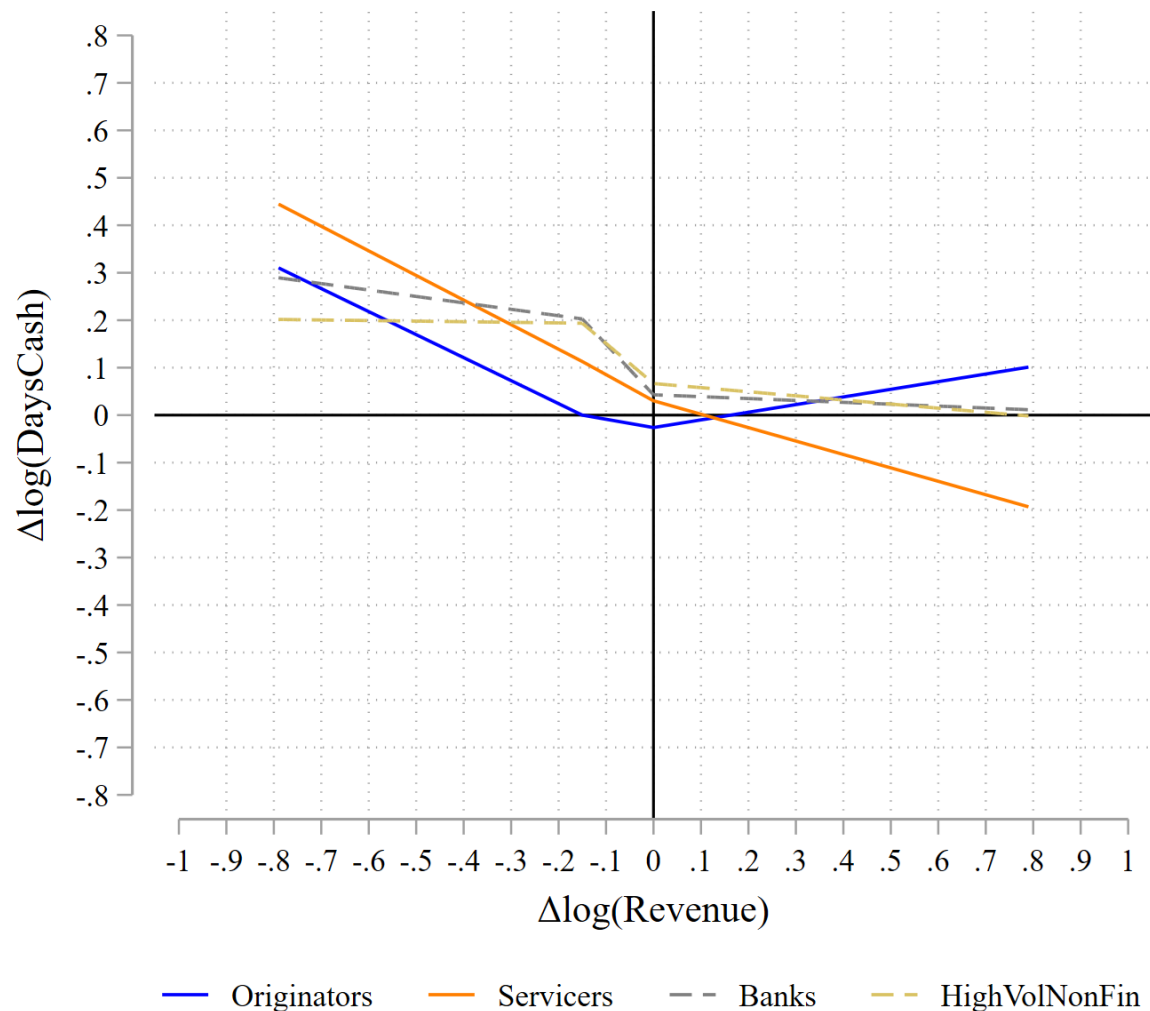
Liquidity response to shocks



Operating Liquidity

- “Days’ Cash on Hand”
- Cash/Daily Operating Expenses

Liquidity response to shocks



Operating Liquidity

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Days’ cash on hand *increases*

- Reducing costs fast enough to maintain operating liquidity.

Conclusion

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- How?
 - Highly flexible cost structure (esp. Originators)
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Conclusion

- Nonbanks are central to the mortgage US mortgage markets
- Despite high leverage, they have very risky assets.
 - But...bankruptcy is rare.
- How?
 - Highly flexible cost structure (esp. Originators)
 - Higher liquidity buffers (esp. Servicers)
- Any potential nonbank regulations should take into account:
 - the nature of nonbanks' risks
 - the extent that nonbanks' flexibility allows them to respond to shocks

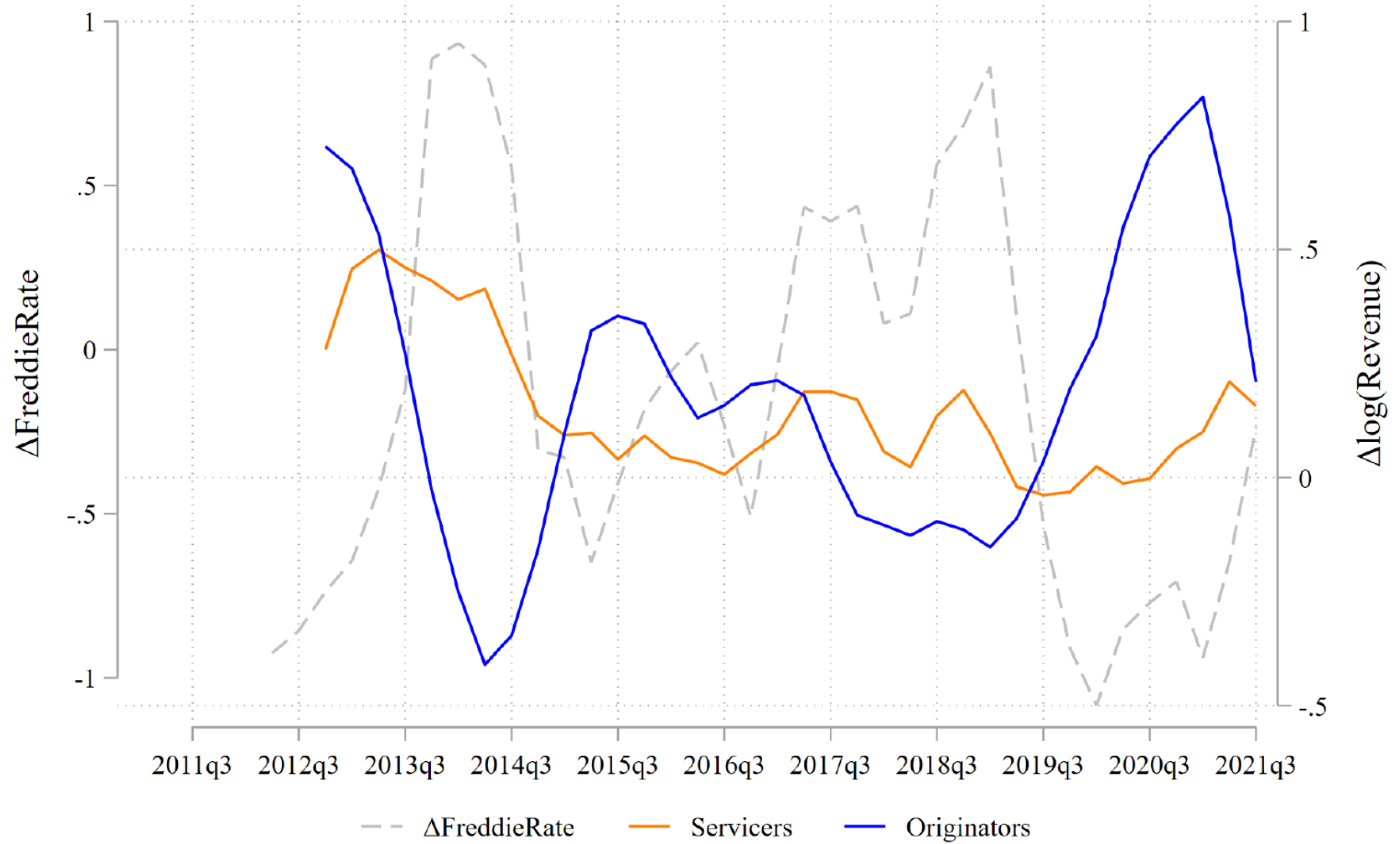
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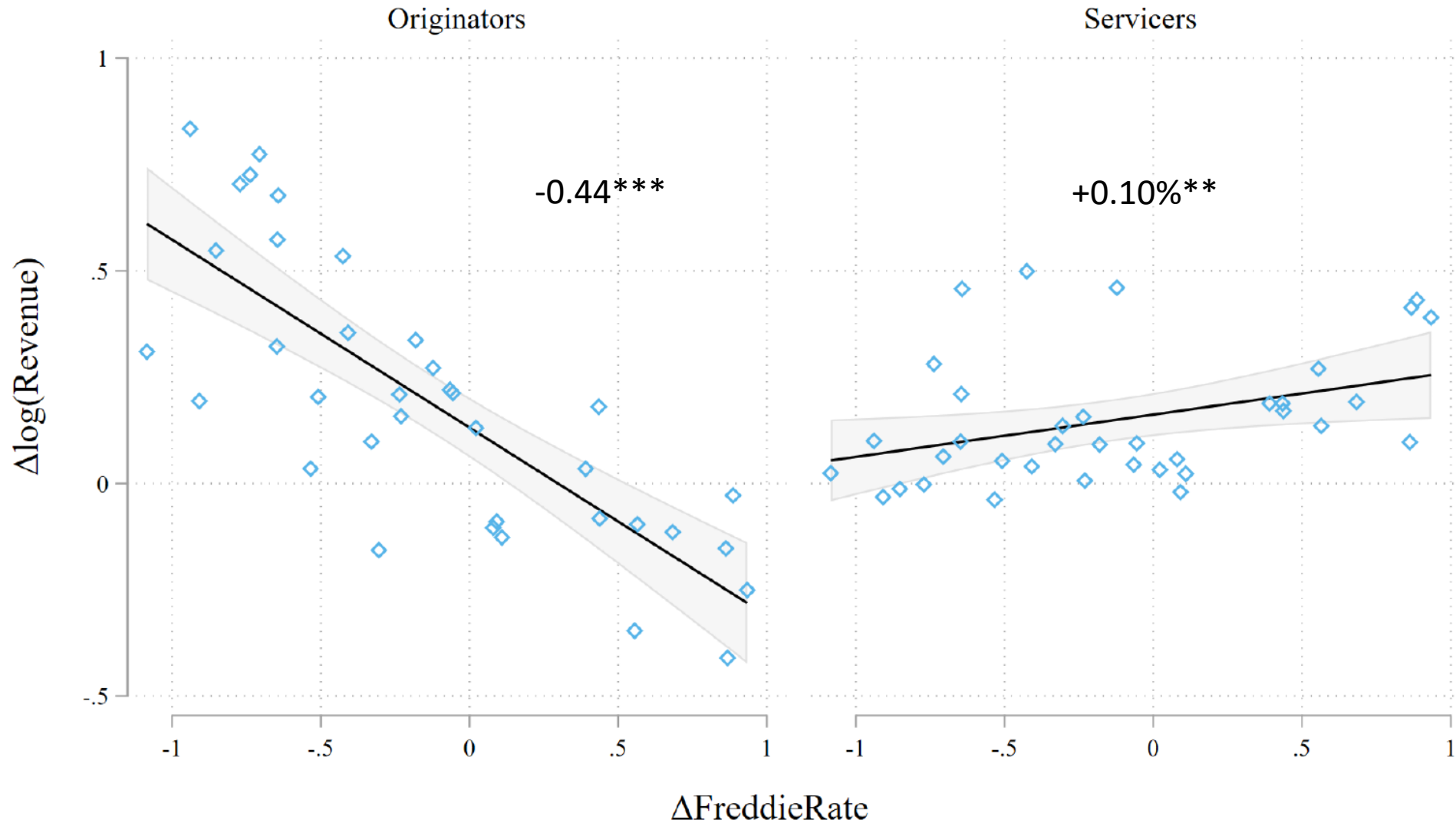
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Appendix

Mortgage rates drive business risk



Heterogeneity in Business Models: Revenue



Liquidity response to shocks

	(1) Originators	(2) Servicers	(3) Banks	(4) HighVolNonFin
$\Delta \log(\text{Revenue}) < -.15$	-0.48*** (<0.01)	-0.52** (0.02)	-0.14*** (<0.01)	-0.01 (0.88)
$\Delta \log(\text{Revenue}) \in [-.15, 0]$	-0.17 (0.35)	-0.55 (0.42)	-1.06*** (<0.01)	-0.85*** (<0.01)
$\Delta \log(\text{Revenue}) > 0$	0.16*** (<0.01)	-0.28*** (<0.01)	-0.04*** (0.01)	-0.09** (0.03)
Constant	-0.07** (0.01)	0.04 (0.78)	0.18*** (<0.01)	0.19*** (<0.01)
N	7,429	678	212,828	6,895
R^2	0.02	0.07	0.01	0.01

p-values in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Funding Servicer Advances

	(1) Debt/A	(2) Long-term Debt/A	(3) Short-term Debt/A	(4) Credit Util
Advances/Assets	0.17*** (<0.01)	-0.11** (0.02)	0.28*** (<0.01)	0.46** (0.02)
MSRs/Assets	0.05* (0.05)	0.12*** (<0.01)	-0.06** (0.03)	-0.31*** (<0.01)
Receivables/Assets	-0.11*** (<0.01)	-0.19*** (<0.01)	0.09** (0.02)	-0.28*** (<0.01)
N	878	878	878	324
R^2	0.67	0.65	0.57	0.63

p-values in parentheses

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