Out with the New, In with the Old? Bank Supervision and the Composition of Firm Investment

by Miguel Ampudia, Thorsten Beck and Alexander Popov

Discussion by

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Note: I would like to thank Marco Giometti (Wharton School) for a very useful discussion on the paper

The paper in a nutshell

- **What are the real effects of the creation of the SSM?**
  - **SSM firms reduced** investment in **intangible assets** and increased **tangible investments** and **cash holdings**
  - The results are robust to:
    - Balanced sample across investment types, Matched sample, Controlling for lagged firm characteristics, Controlling for bank level omitted variables, SUR: Seemingly Unrelated Regressions, Non collapsed data, Interaction with intangible intensity
  - These results do **not** depend on **pre-SSM trends** and do **not** happen in **non-SSM countries**
  - SSM **banks** declined **corporate lending**

In sum: Dampening effect of SSM on banks' lending, and thus a shift of firms' investment toward assets that are more easily collateralizable

Structure of the comments

- Very interesting question – great idea!
  - Most papers focus on effectiveness of centralized supervision and effect on bank lending
  - The paper brings the question one step forward – What are the real effects?
- Many comments/questions come to mind:
  1. **What is the story behind the results?**
  2. **What is the data set?**
  3. **How to interpret the results?**
  4. **Firm debt and bank lending**
  5. **Scattered questions**

Comment 1: What is the story behind the results?

- Existing **theories** focus on **effectiveness** of centralized supervision and consequences for **bank lending** - What are the empirical implications?
  - E.g. Carletti, Dell'Ariccia and Marquez (2021): central supervision may lead to more bank risk taking even it is stricter
- This paper argues:
  - If **NCAs** provides **more rigorous supervision**, **SSM firms** should **increase** their **investments** and thus **intangible assets**
  - If **SSM** is **more effective**, the opposite should happen
- **Is the link SSM/bank lending/types of investment obvious?**
  - Granja and Leuz (2017): centralized supervision may increase/improve lending because it induces banks to become more efficient
- **Is this what is really tested?**
  - Is the SSM tougher or laxer? Transition or steady state results?
  - How do we interpret the results? Effect through bank capital?
  - Can you exploit more firm and bank characteristics?

Comment 2: What is the data set?

- **13 countries, 241,082 firms, 549 banks, period 2010-2017**
- **Which countries are in the data set?**
  - Greece, Lithuania, Luxembourg: in or out because of low coverage?
- **Can you give us more detail?**
  - Initial to final firm numbers (from 46,080,758 to 241,082??)
  - Distribution of firms and banks across countries
  - Characteristics of firms: something on profitability?
    - SSM firms are smaller?
  - Characteristics of banks: capital, profitability, etc?
- **Careful also with clustering (country or country year?)**

Comment 3: How to interpret the results?

Table 2. Bank supervision and firm investment: Main result

	(1)	(2)	(3)	(4)	(5)
	Δ Total Assets	Δ Tangible assets	Δ Intangible assets	Δ Other fixed assets	Δ Current assets
Post 2012 × SI	0.0044***	0.0025	-0.0065***	-0.0007	0.0039***
	(0.0012)	(0.0024)	(0.0016)	(0.0015)	(0.0014)
Post 2014 × SI	0.0092***	0.0028***	-0.0058**	-0.0011	0.0021***
	(0.0092)	(0.0007)	(0.0028)	(0.0021)	(0.0007)
Firm FEs	Yes	Yes	Yes	Yes	Yes
Country × Sector × Period FEs	Yes	Yes	Yes	Yes	Yes
Clustering			Country		
Observations	722,806	643,226	223,515	393,600	705,776
R-squared	0.42	0.43	0.44	0.37	0.37

1) **Economic relevance: How "big" are the results?**
2) **Why only columns 2-5 in the following?**

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4) **Large variability in the observations – should balanced sample be the baseline?**

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2) Why only columns 2-5 in the following?
3) Lots of fixed effects: which one(s) count more?
4) Large variability in the observations–should balanced sample be baseline?
5) **Is the R-squared "high enough"?**

Comment 4 Firm debt and bank lending

Table 12. Bank supervision and firm debt: Orbis data

	(1) Δ Total debt / Assets	(2) Δ Short-term debt / Assets	(3) Δ Long-term debt / Assets
Post 2012 × SI	-0.0027	-0.0194	-0.0014
	(0.0047)	(0.0141)	(0.0037)
Post 2014 × SI	-0.0092***	-0.0032	-0.0060*
	(0.0026)	(0.0121)	(0.0034)
Firm FEs	Yes	Yes	Yes
Country × Sector × Period FEs	Yes	Yes	Yes
Observations	161,514	123,537	162,979
R-squared	0.35	0.34	0.35

- SSM firms' debt increases mostly after 2014
  - **No reduction** in the **transition period**
  - Can SSM firms have increased lending from **other banks/sources**?

Comment 4: Firm debt and bank lending

Table 13. Bank supervision and lending to firms: IBSI data

	(1)	(2)	(3)
	Lending to NFCs		
	Total	Domestic	Other euro-area
Post 2012 × SI	-0.1500**	-0.0620	-0.3053*
	(0.0736)	(0.0655)	(0.1899)
Post 2014 × SI	-0.1448	-0.1425**	-0.5015*
	(0.1061)	(0.0693)	(0.2697)
Bank FEs	Yes	Yes	Yes
Country × Period FEs	Yes	Yes	Yes
Clustering		Country	
Observations	527	521	467
R-squared	0.97	0.97	0.97

- **Bank lending** decreases but **only** in the **transition**
- Consistent with the **adjustment** of **capital ratios** in the transition (e.g. Gropp et al., 2016, Fiordelisi et al., 2017)
- **Sufficient to explain the story?**

Comment 5: Scattered questions

Table 6. Bank supervision and firm investment: Controlling for lagged firm characteristics

	(1)	(2)	(3)	(4)
	Δ Tangible assets	Δ Intangible assets	Δ Other fixed assets	Δ Current assets
Post 2012 × SI	0.0024	-0.0061***	-0.0003	0.0023*
	(0.0027)	(0.0015)	(0.0013)	(0.0013)
Post 2014 × SI	0.0034***	-0.0030*	-0.0003	0.0009
	(0.0008)	(0.0020)	(0.0021)	(0.0010)
Firm controls	Yes	Yes	Yes	Yes
Post 2012 × Firm controls	Yes	Yes	Yes	Yes
Post 2014 × Firm controls	Yes	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes	Yes
Country × Sector × Period FEs	Yes	Yes	Yes	Yes
Clustering			Country	
Observations	568,702	208,754	359,880	612,927
R-squared	0.44	0.44	0.37	0.40

- Why are firm controls not in the baseline regression?
- Less significant results overall → more careful in the text
- Can you exploit more firm characteristics for the story?

Comment 5: Scattered questions (cont.)

Table 7. Bank supervision and firm investment: Controlling for bank-level omitted variables

	(1)	(2)	(3)	(4)
	Δ Tangible assets	Δ Intangible assets	Δ Other fixed assets	Δ Current assets
Post 2012 × SI	0.0030	-0.0089***	-0.0041	0.0012
	(0.0037)	(0.0027)	(0.0025)	(0.0025)
Post 2014 × SI	0.0015	-0.0084**	-0.0036	0.0017**
	(0.0019)	(0.0039)	(0.0028)	(0.0008)
Firm FEs	Yes	Yes	Yes	Yes
Bank FEs	Yes	Yes	Yes	Yes
Country × Sector × Period FEs	Yes	Yes	Yes	Yes
Clustering	Country × Year			
Observations	570,585	201,042	342,710	630,216
R-squared	0.43	0.44	0.37	0.37

- Again results are less significant overall → again careful with interpretation
- Why are R-squared the same as before?
- Can you exploit more bank characteristics?

Conclusions

- Great and new question: Does the establishment of the SSM entail real effects?
- Yes: Reduction in investment in intangible assets!
- **Comments:**
  - Think more of the story
  - Many results, not always consistent or robust – more careful
  - Try to exploit firm and bank characteristics more in depth

Thank you