Bank Specialization and Zombie Lending

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Abstract

Banks often specialize in lending to specific sectors and gain sector-specific information through having many interactions with borrowers from the same sector. We argue that such sectoral expertise also makes banks more aware of zombie firms in the sector as well as more knowledgeable about the negative impact that zombie firms exert on healthy borrowers. This induces specialized banks to reduce zombie lending. The reduction in zombie lending is larger when the scope and opportunity cost of negative spillovers to healthy borrowers is larger; namely, when the fraction of sectoral labor stuck in zombie firms is larger or when the sector is expected to grow faster. Additionally, specialized banks reduce zombie lending less in sectors with higher asset specificity, as zombie firms' default (and potential asset fire sales) could trigger reductions in healthy borrowers' collateral values.

1. Theory

- Banks specialize in lending to some sectors (De Jonghe et al. 2020 RF; Blickle et al. 2021)
  ↪ Giving them an information advantage (Berger et al. 2017 JAE)
  ↪ Incl. identifying zombies + awareness of their negative effect on healthy firms
- Banks internalize spillover effects of their credit decisions on incumbent borrowers (Giannetti & Saïdi 2019 RFS)

⇒ ***H: Specialized banks grant less credit to zombie firms.***

2a. Specialization and Zombie Lending: Main Findings

- Data provided by the National Bank of Belgium
- Corporate lending *at bank-firm level* (credit register), matched with firm and bank balance sheets
- Sample: 2004-2018 (annual frequency), excl. micro-sized borrowers

	New Loan	ΔLn(Credit)	ΔCredit/Assets
Specialization	2.01***	0.51**	0.11***
	(0.40)	(0.21)	(0.04)
Z×Specialization	-1.53***	-0.85***	-0.34***
	(0.31)	(0.24)	(0.08)
Observations	614322	614322	614322
R-squared	0.47	0.45	0.46
N. of clusters	1774	1774	1774

Bank-sector level clustered standard errors, Firm×Year FE, Bank×Year FE

2b. Specialization and Zombie Lending: Channels

- Results driven by unique sectoral soft information
  ↪ horse-race with firm-specific hard & soft information
- Channel stronger when negative (congestion) effect of zombies on healthy borrowers more likely/painful
  ↪ interact with share of sectoral labor stuck in zombies and expected growth of sector
- Channel weaker when zombie default may trigger reduction in (collateral) asset values of healthy borrowers (Acharya et al. 2007 JFE)
  ↪ interact with sector asset specificity

Dependent variable:	ΔLn(Credit)		
Sector variable (triple interaction):	Z^{Labor} Share	Sector Growth	Specificity
Specialization	0.52**	0.52**	0.50**
	(0.21)	(0.20)	(0.21)
Z×Specialization	-0.77***	-0.88***	-0.38
	(0.32)	(0.24)	(0.27)
Specialization×Sector Variable	0.30	0.22	0.05
	(0.24)	(0.25)	(0.12)
Z×Specialization×Sector Variable	-0.52**	-0.65***	1.04***
	(0.25)	(0.22)	(0.39)
Observations	614322	614322	614322
R-squared	0.45	0.45	0.45
N. of clusters	1774	1774	1774

Bank-sector level clustered standard errors, Firm×Year FE, Bank×Year FE

3. Contributions

1. Novel **determinant** of zombie lending: bank **specialization** (=lending concentration):
   - Specialization leads to sector-specific information advantage
   - $\boxed{\uparrow \text{specialization} \implies \downarrow \text{zombie lending}}$
     ↑ specialization & ↑ sector share of zombie labor ⟹ ↓ zombie lending
     ↑ specialization & ↑ sector growth ⟹ ↓ zombie lending
     ↑ specialization & ↑ sector asset specificity ⟹ ↑ zombie lending
2. New zombie **definition**:
   - See paper for more details!