Lending Concentration, Bank Performance and Systemic Risk: Exploring Cross-Country Variation

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Discussion
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Question

How does sectoral lending concentration affect

1. individual bank performance?
2. systemic risk?

Question

In theory, the effect on performance is ambiguous.

More concentration

1. increases loan quality.
2. reduces diversification.

No strong predictions about systemic impact.

Main results

Sectoral specialisation is detrimental to bank performance and increases systemic risk.

Especially

1. after 2007.
2. in more developed countries.
3. in less regulated economies.
4. in banks with little market power.
5. in banks with more traditional intermediation models.

Contribution

Cross-country study

- less detail on the loan portfolio
- ability to explore cross-country differences

Publicly available data

Stock-price & (hand-collected) accounting data

Important in view of current redesign of regulation.

Relevant from a development perspective.

Strategy: Market-based

Step 1.a: Identify sectoral exposures

Regress stock returns on returns of broad market index & sectoral indices.

Step 2.a: Construct measures of sectoral concentration

1. # of significant sectors
2. Joint sectoral contributions to R^2
3. Dispersion (factors) [*s.d. in sectoral coefficients*]
4. Differentiation (factors) [*euclidean distance to country average*]

Strategy: Accounting-based

Step 1.b: Identify sectoral exposures

Hand-collect information from banks' financial statements.

Step 2.b: Construct measures of sectoral concentration

1. Sectoral CR3 [*cumulative share of the three largest exposures*]
2. Hirschmann-Herfindahl-Index [*sum of squared sectoral shares*]
3. Dispersion (accounting)
4. Differentiation (accounting)

Strategy

Step 3: Estimate impact on bank performance & systemic risk

Regress different measures of sectoral concentration on

- return, volatility
- "franchise value" $= \frac{\textit{market capitalization}}{\textit{book value of equity}}$
- marginal expected shortfall

Step 4: Study sub-sample effects

- pre/post 2007
- high/low GDP/capita
- strong/weak asset diversification guidelines
- large/small
- high/low market power [*Lerner index*] → Bergstresser (2004)
- high/low Loan/Asset-ratio [*traditional intermediation*]
- high/low Non-interest Income Share [*traditional intermediation*]

Comments (1): Stock returns

How reliably do stock returns reflect (sectoral) credit risk?

How comparable are determinants of stock returns across countries?

Calomiris & Nissim (2007): *"Predictable future variation in returns does not reflect priced risk factors, but is related to trading costs."*

Harris, Khan & Nissim (2013): *"Investors [...] appear to not fully incorporate the expected credit losses in pricing bank stocks."*

Liu & Ryan (1995)

- reaction to provisions depends on return window (positive for short, negative for wider window)
- market reacts differently to provisions, depending on the fraction of consumer loans

Comments (2): Geographical risk

The paper only considers sectoral heterogeneity in credit risk.

If banks are resource constrained and must choose to *either* diversify across sectors *or* across locations ...

then sectoral diversification might reduce regional diversification.

Do we observe the effect of less sectoral, or more regional concentration?

Morgan & Samolyk (2003)

- geographical diversification increases Loan/Asset ratio
- no effect on risk/return

Comments (3): Sectoral correlation

How correlated are sectoral returns?

How transferrable is expertise between them?

Joint investment in related sectors (e.g. "Finance & Insurance" and "Real Estate") might capture informational synergies more than diversification.

Comments (4): Minor

"Knowledge effect" more relevant when lending is less automated.

- credit-score lenders vs. relationship lenders
- relevance differs across sectors

# of signifcant factors

- diversification at 0, or at 10?

Jahn, Memmel & Pfingsten (2013)

- German banks (write-offs/-downs, maturities, 27 industries)
- beneficial effect of concentration
  - fewer expected write-offs/-downs
  - average write-offs/-downs lower in focus sectors
  - lower unexpected risk

Conclusion

- Example of a paper that uses simple means to convincingly answer a relevant question with public information.
- General message seems robust.
- Specific findings (and therefore policy conclusions) are less well-developed.
- One would like to understand better, why results are different from (some) country-level studies.
- Intuition behind the systemic-risk effect could be explained more (supporting evidence).

Misc.

- " ... first to empirically gauge the relationship between bank lending specialization and bank performance and stability" (p.1)
- How are orthogonalized exposures standardised?
- How is the "broad market index" calculated?