



Relationship Lending: That Ship Has Not Sailed for Community Banks

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Introduction

- This study investigates the contribution of relationship lending to the value of banks by estimating the market premium placed on the small business loan portfolios of community banks
- Previous literature has focused almost exclusively on the value of lending relationships to the firms that obtain access to bank lending. This literature finds that firms, both large and small, accrue substantial benefits
- A handful of studies that investigated the value of relationship lending to banks provide only indirect evidence





Why might small business lending enhance bank value?

- Small business lending → Relationship lending → Banks acquire private information about a borrower → Banks exploit their information monopoly → Banks earn higher returns
- In addition, banks may benefit from inexpensive core deposits placed by their relationship borrowers.
- Other sources of value for the relationship lender would arise through the opportunities for cross-selling additional products and services to its relationship borrowers.
- If the rents earned due to the bank's informational monopoly power more than compensate the lender for the additional information (screening and monitoring) costs incurred, then relationship loans would add value to a relationship bank.





Hypothesis

Main hypothesis:

- Small business lending by banking organizations is value enhancing

Focus on market premium associated with small business loan portfolios of community banks

Two ways to measure market premium:

- Transaction multiples for target banks sold in M&A deals
 - Most M&A targets are privately held community banks
- Stock market multiples for publicly traded community banks





Data

- Sample of target banks sold in M&A transactions - Capital IQ
- Sample of publicly traded U.S. banking organizations - CRSP
- Balance sheet and income data for each banking organizations are obtained from either Call Reports (stand-alone banks) or Y9-Cs (BHCs)
- Annual data for small business loans are obtained from the small business loan survey section of the Call Reports (June only)
- The final M&A target bank sample contains cross-sectional data consisting of a total of 982 takeover observations from 1994 to 2021
- The final sample of publicly traded banks is an unbalanced panel that includes a total of 6,225 bank-year observations from 906 unique banking organizations from 1994 to 2021





Specification

- Market value of the equity (MVE) =
Market value of on-balance-sheet assets (MVA)
- Market value of on-balance-sheet liabilities (MVL)
+ Net market value of off-balance-sheet activities (MVOBS)
+ Market's valuation of other characteristics of the banking organization (MVCHAR)
- $MVE = MVA - MVL + MVOBS + MVCHAR$
- Because market values on the right-hand side are not observable, and are not reported by banking organizations, we must replace them with reported measures.





Specification

- $MVE = \sum a_i A_i - \sum b_j L_j + \rho FEE + \gamma' CHAR + \varepsilon$,
- All variables scaled by total assets
- The premium or the discount that the acquirer or stock market places on the respective asset or liability categories is given by $(\alpha_i - 1)$ for assets and $(1 - b_j)$ for liabilities
- $\alpha_i > 1 \rightarrow$ premium on the asset $i \rightarrow$ asset i adds value to the bank
- $\alpha_i < 1 \rightarrow$ discount asset $i \rightarrow$ asset i subtracts value from the bank
- $b_j < 1 \rightarrow$ premium on the liability $j \rightarrow$ liability i adds value to the bank
- $b_j > 1 \rightarrow$ discount liability $j \rightarrow$ liability i subtracts value from the bank





Specification

- $MVE/TA = \gamma_1 LGC\&I + \gamma_2 SMC\&I + \gamma_3 LGCRE + \gamma_4 SMCRE + \sum \theta_i OA_i - \sum \mu_i L_i + \vartheta FEE + \rho' CHAR + v + t + \varepsilon$

Bringing liabilities to the left-hand side:

- $Tobin's\ Q = \beta_1 LGC\&I + \beta_2 SMC\&I + \beta_3 LGCRE + \beta_4 SMCRE + \sum \delta_i OA_i + \varphi FEE + \lambda' CHAR + v + t + \varepsilon$

β_1 – the effect of large C&I loans

β_2 – the effect of small C&I loans

$\beta_2 - \beta_1$ – differential effect of small C&I loans

Main hypotheses:

$\beta_2 > 1$ – small C&I loans add value (are associated with the market premium)

$\beta_2 - \beta_1 > 0$ – small C&I loans add value above and beyond large C&I loans





Valuations for Target Banks Sold in M&A Transactions (selected coefficients)

Dependent Variable Sample	Tobin's Q		MVE/TA	
	All Banks (1)	Community Banks (2)	All Banks (3)	Community Banks (4)
<i>LGC&I</i>	1.0351*** (0.0558)	0.9936*** (0.0578)	1.0193*** (0.0537)	0.9802*** (0.0564)
<i>SMC&I</i>	1.1858***a (0.0987)	1.2097***a (0.0608)	1.2000***a (0.0624)	1.2192***a (0.0999)
<i>LGCRE</i>	1.0491***c (0.0271)	1.0539***b (0.0274)	1.0410*** (0.0258)	1.0428***c (0.0263)
<i>SMCRE</i>	1.0357*** (0.0421)	1.0200*** (0.0417)	1.0103*** (0.0418)	0.9930*** (0.0417)
<i>CORE</i>			-0.9150***d (0.0204)	-0.9167***d (0.0196)
<i>Test SMC&I-LGC&I=0</i>	0.1507 (0.0987)	0.2161** (0.1046)	0.1807* (0.0987)	0.2390** (0.0999)
<i>Test SMCRE-LGCRE=0</i>	-0.0134 (0.0539)	-0.0339 (0.0536)	-0.0307 (0.0527)	-0.0497 (0.0526)





The Value of Relationship Lending Over Time for Target Banks Sold in M&A Transactions

Dependent Variable Sample	Tobin's Q		
	1994-2009 (2)	2010-2021 (3)	Diff (2)-(3)=0
<i>LGC&I</i>	0.9660*** (0.0950)	0.9917*** (0.0589)	0.0257 (0.1085)
<i>SMC&I</i>	1.2157***^b (0.0840)	1.1696***^b (0.0674)	-0.0461 (0.1051)
<i>LGCRE</i>	1.0431*** (0.0562)	1.0689***^b (0.0291)	0.0258 (0.0626)
<i>SMCRE</i>	1.0438*** (0.0640)	0.9921*** (0.0521)	-0.0517 (0.0800)
<i>Test SMC&I-LGC&I=0</i>	0.2497* (0.1452)	0.1779* (0.1077)	0.0718 (0.1746)





Splitting small CI and CRE loans into size subcategories: SM1 – below \$100,000; SM2 – between \$100,000 and \$1,000,000

Dependent Variable Sample	Tobin's Q		MVE/TA	
	All Banks (1)	Community Banks (2)	All Banks (3)	Community Banks (4)
<i>LGC&I</i>	1.0432*** (0.0604)	1.0008*** (0.0634)	1.0242*** (0.0578)	0.9843*** (0.0612)
<i>SM1C&I</i>	1.3763***b (0.1984)	1.3876***b (0.1993)	1.3300*** (0.2097)	1.3463***c (0.2099)
<i>SM2C&I</i>	1.1363*** (0.0868)	1.1645***c (0.0868)	1.1669***b (0.0848)	1.1880***b (0.0850)
<i>LGC&I</i>	1.0496***c (0.0284)	1.0527***c (0.0285)	1.0399*** (0.0274)	1.0403*** (0.0276)
<i>SM1CRE</i>	0.7019** (0.2975)	0.6275** (0.2954)	0.6991** (0.3015)	0.6150** (0.2996)
<i>SM1CRE</i>	1.0495*** (0.0454)	1.0376*** (0.0445)	1.0244*** (0.0450)	1.0111*** (0.0443)
<i>Test SM1C&I-LGC&I=0</i>	0.3331* (0.1882)	0.3668** (0.1892)	0.3058 (0.2024)	0.3620* (0.2031)
<i>Test SM2C&I-LGC&I=0</i>	0.0930 (0.1313)	0.1637 (0.1342)	0.1427 (0.1258)	0.2036 (0.1291)





Compound Annual Growth Rates (CAGR) in Small Business Loans at Merged Banks and Matched Control Banks

	Combined Merged Entity	Matched Control Banks	<i>Difference</i>	
	(1)	(2)	(1)-(2)	<i>p-value</i>
SMC&I CAGR [t-1,t+3]	0.0559	0.0301	0.0258	0.018**
SM1C&I CAGR [t-1,t+3]	0.0316	0.0098	0.0218	0.038**
SM2C&I CAGR [t-1,t+3]	0.0638	0.0354	0.0283	0.001***
SMCRE CAGR [t-1,t+3]	0.0364	0.0257	0.0107	0.156
SM1CRE CAGR [t-1,t+3]	-0.0345	-0.0524	0.0179	0.154
SM2CRE CAGR [t-1,t+3]	0.0406	0.0325	0.0081	0.211





Stock Market Valuations for Publicly Traded Banks (selected coefficients)

Dependent Variable Sample	Tobin's Q		MVE/TA	
	All Banks (1)	Community Banks (2)	All Banks (3)	Community Banks (4)
<i>LGC&I</i>	1.0187*** (0.0329)	1.0469*** (0.0321)	1.0106*** (0.0325)	1.0392*** (0.0325)
<i>SM1C&I</i>	1.2483*** (0.1546)	1.3598***^b (0.1561)	1.2175*** (0.1529)	1.3407***^b (0.1548)
<i>SM2C&I</i>	0.9445*** (0.0677)	0.9367*** (0.0513)	0.9544*** (0.0611)	0.9426*** (0.0523)
<i>LGCRE</i>	0.9800*** (0.0319)	0.9650*** (0.0341)	0.9820*** (0.0319)	0.9636*** (0.0341)
<i>SM1CRE</i>	1.0319*** (0.2074)	1.0719*** (0.2122)	1.0930*** (0.2007)	1.1086*** (0.2066)
<i>SM1CRE</i>	1.0129*** (0.0370)	0.9964*** (0.0374)	0.9943*** (0.0359)	0.9784*** (0.0363)
<i>Test SM1C&I-LGC&I=0</i>	0.2296 (0.1575)	0.3129** (0.1588)	0.2069 (0.1554)	0.3015* (0.1582)
<i>Test SM2C&I-LGC&I=0</i>	-0.0742 (0.0677)	-0.1102* (0.0577)	-0.0562 (0.0680)	-0.0966 (0.0592)





The Value of Relationship Lending Over Time for Publicly Traded Community Banks

Dependent Variable Sample	Tobin's Q		
	1994-2009 (2)	2010-2021 (3)	Diff (2)-(3)=0
<i>LGC&I</i>	1.0082*** (0.0401)	1.0724***c (0.0490)	0.0642 (0.0543)
<i>SM1C&I</i>	1.3225***b (0.1653)	1.4199***b (0.2165)	0.0974 (0.2386)
<i>SM2C&I</i>	0.9544*** (0.0541)	0.9404*** (0.0685)	-0.0140 (0.0826)
<i>LGCRE</i>	0.9446*** (0.0378)	0.9858*** (0.0347)	0.0412 (0.0475)
<i>SM1CRE</i>	1.0711*** (0.2112)	0.8647*** (0.3735)	-0.2064 (0.4188)
<i>SM2CRE</i>	0.9839*** (0.0446)	0.9618*** (0.0524)	-0.0221 (0.0607)
<i>Test SM1C&I-LGC&I=0</i>	0.3143* (0.1693)	0.3476* (0.2165)	0.0333 (0.2364)





The Value of Relationship Lending for Publicly Traded Community Banks during and outside the Global Financial Crisis

Dependent Variable Sample	Tobin's Q		Diff (2)-(3)=0
	Non-Crisis Period (2)	Crisis Period (3)	
<i>LGC&I</i>	1.0456*** (0.0323)	0.9976 (0.0490)	-0.0480 (0.0455)
<i>SM1C&I</i>	1.3509***b (0.1585)	1.5876***a (0.2362)	0.2368 (0.2310)
<i>SM2C&I</i>	0.9396*** (0.0527)	0.9360*** (0.0838)	-0.0037 (0.0836)
<i>LGCRE</i>	0.9700*** (0.0367)	0.9140***b (0.0344)	-0.0560* (0.0340)
<i>SM1CRE</i>	1.0617*** (0.2253)	0.8390*** (0.3805)	-0.2227 (0.3960)
<i>SM2CRE</i>	1.0077*** (0.0378)	0.8320***a (0.0536)	-0.1757*** (0.0499)
<i>Test SM1C&I-LGC&I=0</i>	0.3053* (0.1615)	0.5900** (0.2329)	0.2368 (0.2310)





Conclusions

- This study has investigated the extent to which relationship lending enhances the market value of banking organizations.
- We find that small C&I loans add more market value to the community banks than do larger C&I loans. Furthermore, the effect is coming from the smallest size category of C&I loans
 - the added revenue associated with relationship lending exceeds the added information costs associated with evaluating and monitoring small business loans
- The value-enhancing effect of small business loans is present not only during normal economic conditions, but also during the Global Financial Crisis
- We find no evidence that technical change and the rise of FinTech small business lending has eroded the value-enhancing effects of small C&I lending by small community banks.
- Small CRE loans do not appear to enhance the market value of banks beyond that from CRE loans generally
 - CRE loans represent transactional rather than relationship lending → advantages arising from information-intensive relationship lending are less important

