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HOW HAVE BORROWERS FARED IN BANKING MEGA-MERGERS?

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ABSTRACT

Previous studies of event returns surrounding bank mergers show that banks gain value in megamergers and additional value when they absorb in-market competitors. A portion of these gains has been traced to the increased bargaining power of banks vis-àà-vis regulators and other competitors. We demonstrate that increased bargaining power of megabanks adversely affects loan customers of the acquired institution. Wealth losses are greater when loan customers are credit-constrained and the acquisition is unfriendly or an in-market deal. These findings reinforce complaints that the ongoing consolidation in banking has unfavorably affected the availability of credit for capital-constrained firms.

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Differences in relative bargaining power inevitably affect the outcome of bilateral negotiations. In banking, bargaining takes place in three arenas: between banks and their regulators; between banks and their customers; and between acquiring institutions and target firms. This paper uses event-study methods to investigate how presumptive changes in the balance of bargaining power engendered by merger announcements affect the benefits and costs corporate customers are expected to encounter in dealing with an enlarged megabanking firm.

Although bank merger announcements routinely project subsequent improvements in efficiency and diversification, statistically significant net increases in the market capitalization of the combining banks seldom occur. The value of the target stock usually increases, but this increase typically occurs at the expense of the acquirer's stock value.

However, mergers involving megabanks show a different pattern. The stock of megabank acquirers typically gains value when the acquirer announces an acquisition. Moreover, the benefit increases with target size and is larger when the target was previously competing in-state (Kane, 2000). Kane hypothesizes that megamerger gains arise in part from improved access to monopoly rents and regulatory subsidies. Whatever scale and scope economies might exist in production and distribution costs, mergers eliminate an actual or potential competitor, while increased size strengthens market presumptions that the institution is both Too-Big-to-Fail (TBTF) and, in future disputes with customers and regulators, "Too big to Discipline Adequately" (TBTDA). Resulting increases in the market power of the bank and in the intangible value of the government's credit enhancement lower its funding costs and increase its market capitalization. Evidence that megamergers enhance the value of bank debt (Penas and Unal, 2003) supports this interpretation.

How megabank mergers affect the expected financing costs of established loan customers is the econometric focus of this paper. On the one hand, any newfound efficiencies in loan production and contracting might translate into lower borrowing costs, while the increased political clout of the post-merger entity would lessen the

chance that its failure could force a longtime borrower to lose its intangible investment in favorable ties with bank officers.[1] On the other hand, mergers threaten to hurt at least some customers and can do so in three ways. First, post-merger staffing cuts may displace some (or all) of the particular officers whose favor the customer had previously cultivated. Surviving loan officers are unlikely to be aware of every important contact the customer has previously had with one partner or the other. Second, in eliminating a competitor, the merger may curtail some customers' bargaining power. Lastly, an enhanced government guarantee would shift risk to the customer in its capacity as a taxpayer. We investigate how the sign of the net effect varies with merger characteristics and customer circumstances.

For the ten largest domestic U.S. bank mergers announced between 1991 and 2001, this study estimates whether and how merger announcements affect the value of intangible customer relationships at target and acquiring banks. On average, the stock prices of established corporate customers show no statistically significant announcement effect. However, once we control for salient merger and customer characteristics, significant effects emerge. These effects are consistent with the hypothesis that megamergers consolidate market power in particular market segments. On average, target customers suffer in all four mergers where the partners show substantial geographic overlap. As predicted by the bargaining-power hypothesis, very large customers are undamaged and smaller customers of targets fare especially badly when the announcement indicates that managers of the target firm are *not* going to be treated as equal partners. Finally, losses prove most severe for customers that show evidence of being credit-constrained.

The paper has four sections. Section I summarizes the economics of bank-customer relationships and lays out some testable hypotheses. Section II reviews the construction and properties of our dataset. Section III presents regression results, while Section IV discusses policy implications and opportunities for future research.

[1] Looking at the 1984 collapse and subsequent rescue of Continental Illinois Bank, Slovin, Sushka, and Polonchek (1993) provide evidence that customers' wealth rises and falls with fluctuations in their lending institution's financial health. Kang and Stulz (2000), Bae, Kang and Lim (2002) and Ongena, Smith and Michalsen (2003) show that adverse shocks to the banking systems reduced borrower stock prices in Japan, Korea and Norway, respectively.

I. Sources and Distribution of Intangible Value in Bank-Customer Relationships

Modern banking theory emphasizes that the many and repeated points of contact a bank has with its established customers generate private information and mutual trust. Diamond's delegated-monitoring hypothesis holds that banks either win access to inside information from good customers or uncover such information through analysis they undertake in the course of supporting and observing their customers' loan and deposit business (Diamond, 1984; Kane and Malkiel, 1965).

Privileged information and a climate of mutual trust allow a bank to assess and price the risk of lending to a relationship customer more accurately than the bank's competitors can. In principle, abilities or capacities that create such extranormal returns are intangible assets. In each relationship, the relevant intangible asset may be portrayed as a mutual claim to the capitalized value (R) of the reduced opportunity costs. The outcome of a bilateral bargaining process (BP) allocates R partly to the relationship customer (R_C) and partly to the bank (R_B):

$$R_C(BP) + R_B(BP) = R(BP). \quad (1)$$

Because R requires the cooperation of both parties, equilibrium R_C and R_B should each be strictly positive. As in the cold-war doctrine of Mutually Assured Destruction, in each period, both parties want to avoid outcomes that would eliminate the counterparty's incentive to renew the relationship.

Determinants of R and Relative Bargaining Power: To derive testable hypotheses about the determinants of the intangible values R_C and R_B, we can model R and the differences in bargaining power as functions of a series of observable bank, borrower, and merger characteristics that might reasonably be expected to affect their relative bargaining power.

Kane and Malkiel (1965, p. 122) identify five customer characteristics (X_i, i = 1, 2, . . ., 5) and sign the partial derivatives $\frac{\delta R}{\delta X_i}$ as follows:

1. large accounts are preferred to small ones;
2. growing accounts are valued more highly than declining ones;
3. stable deposits are ranked over volatile ones;
4. longstanding accounts are preferred to new ones;

5. strongly cohesive accounts are more desirable than footloose ones.

Except for the fourth characteristic, these customer variables incorporate forecasts of future behavior. *Ceteris Paribus*, the quality of these forecasts may be expected to increase with the length of time the bank has persistently and successfully handled the customer's business. However, Kane and Malkiel stress that granting credit requests on seemingly favorable terms is an instrument for building and cementing customer relationships. Hence, when new, small, or distressed firms can credibly promise future growth and cohesiveness, it may be desirable to accommodate their needs on fair (or, as Petersen and Rajan (1994) stress, even preferential) terms.

One cannot properly assess the fairness of loan terms by looking merely at the explicit interest rate stipulated in the contract. Implicit elements of funding cost include supplementary fees and burdens experiences in complying with various loan covenants, particularly those that specify collateral requirements, periodic cleandowns, and reporting frequency. Although banks make it difficult for outsiders to assess variation in the implicit burdens imposed in past and prospective loan deals, rational stock-market participants must be expected to bid into stock prices an estimate of how the merger plans announced by a firm's bank promise to affect the customer's future cost of credit.

Given R, the impact of a megamerger on a customer's R_C depends on whether and how particular bank and merger characteristics might alter its bargaining power. The customer's bargaining power increases with its size and the extent to which the importance of the officers that have handled its business in the past promise to survive post-merger reorganization activity and decreases if the merger is expected to curtail the customer's ability to tap alternative sources of credit on fair terms.

Empirical Research on Determinants of R_C. Econometric studies investigate whether and how indicators of relationship value and bargaining power affect measures of borrower interest cost or stock price. Bargaining power is important because relationships are especially valuable to small firms that have limited ability to raise capital from public securities markets. Using data from the Federal Reserve Board's 1987 National Survey of Small Business Finances (NSSBF), Petersen and Rajan (1994) and Berger and Udell (1995) find that the principal advantage a firm gains from a banking relationship is access to financing on favorable terms.

Most studies of loan cost focus on the borrower's explicit contract rate, although Brick, Kane, and Palia (2003) estimate a model in which loan fees and the decision to require collateral are determined simultaneously with the contract interest rate. Whether or not simultaneous-equations bias is addressed, measurement errors and omitted variables bias individual-coefficient estimates. Customer cohesiveness, stability, and growth potential are so difficult to proxy that they are seldom included in regression tests.

James (1987) and Lummer and McConnell (1989) were the first to establish that the origination and renewal (respectively) of a credit relationship favorably influence the stock price of customer firms. Much subsequent research has focused on how a customer's relationship varies with customer and bank size and with the extent to which the customer has ready access to other bank and nonbank sources of credit.

Bank perceptions of a relationship's cohesiveness depend on the intensity of outside competition for the customer's business. In competitive market segments, most customers can easily establish additional banking relationships. In less-competitive segments, it may be rational for a bank to favor young, small, and other capital-constrained firms to build the customer loyalty that can lock in profitable loan and deposit business down the line. Consistent with this possibility, Petersen and Rajan (1995) assemble evidence that small businesses obtain credit on better terms in concentrated credit markets than in competitive ones. Still, Kane and Malkiel (1965) argue that small firms may have difficulty convincing a large bank to invest in a relationship, so that it is likely that the small firms whose bank selects them for favorable treatment would show considerable cohesiveness and growth potential if data on these neglected variables could be introduced.

Effects of Mergers on These Determinants. Strahan and Weston (1998) show that, as a percentage of U.S. bank assets, the ratio of lending to small business first increases and then decreases with bank size. At the margin, after banks reach a threshold asset size, they channel an increasing proportion of their lending to large firms.

This reverse J-shaped pattern implies that, while mergers of small banks may benefit relationship customers, megabank mergers threaten to disrupt the availability of credit to small businesses. Strahan and Weston (1998) and Berger, Saunders, Scalise, and Udell (BSSU, 1998) support this concern. Strahan and Weston find that, as a

percentage of bank assets, small-business lending increases only when the merging banks are both small, while mergers between medium and large institutions do not noticeably move this ratio. BSSU find that small-business lending increases following a merger of small banks, but decreases when large banks combine.

Studies of bank mergers in Norway and Italy indicate that bank mergers affect customer stock prices and credit costs, respectively. Karceski, Ongena, and Smith (2000) find that Norwegian bank merger announcements reduce the equity value of small publicly traded firms that are target customers. Consistent with the hypothesized joint effect of large in-market mergers on competitive pressure and of reduced competitive pressure on customer bargaining power, the size of stock-price declines are larger with the size of the bank being absorbed. In the Norwegian environment, the stock prices of relationship customers of the acquiring bank increase.

Sapienza finds that, in Italy, contract interest rates on bank loans fall when banks with small shares of the local banking market combine. The contrary result is observed for mergers of large Italian banks. This differential finding for large and small bank mergers is consistent with the joint hypothesis that economies of scale exist only for very small banks and that, only when markets are competitive, are merger benefits shifted into loan rates.

A 2004 survey by the Association of Finance Professionals provides evidence of similar concerns in the United States. Nearly two-thirds of the surveyed chief financial officers and treasurers at companies with revenues of $1 billion or more said a bank had denied credit or raised loan prices because the corporate executive did not buy additional services. Executives attribute this to the "growing clout and competition in the banking industry that have come with consolidation and the repeal of laws separating the banking and brokerage business" (Sapsford 2004).

Specific Issues Investigated Here. Our paper focuses on the effects that megamerger announcements have on the stock price of corporations that have an outstanding loan at either or both of the target bank and its acquirer. For individual customers, a market model is used to estimate Day-0 "Abnormal Returns" (AR_i) and cumulative abnormal returns (CAR_i) observed during an announcement window whose length is the sum of $1 + t_1 + t_2$ days [CAR $(0\text{-}t_1, 0\text{+}t_2)$]. Whether due to projected changes

in R or bargaining power, these ARs and CARs should capture whatever net effect the merger has on a borrower's R_C. To investigate whether the effect is significant, CAR_i is regressed upon proxies for the customer's relationship value (R_i) and bargaining power (BP_i).

Regression tests seek to approximate the following latent regression equation:

$$CAR_i = a_i + b_i R_i + c_i BP_i + u_i. \quad (2)$$

In estimating (2), the joint influence of R_i and BP_i is proxied by variables that relate to merger and market characteristics presumed to capture the post-merger disposition of target personnel (ME), the extent to which the acquirers' product line and geographic footprint expand through in-market acquisitions (IM) and deposit overlap (OL), and a variable representing the intensity of the competitive environment in which the customer must meet its financing needs (CC), which combines effects related to a firm's need for financing and its access to credit (see the Appendix for explicit variable definitions). Regression equations presented in our tables are of the form:

$$CAR_i = b_o + b_1 ME_i + b_2 IM_i + b_3 OL_i + b_4 CC_i + v_i. \quad (3)$$

Our first strand of testing looks at whether differences exist in the means of ARs and individual regressors across subsamples composed of target, acquirer, and joint customers. The second and more important strand uses equation (3) to conduct two kinds of regression tests. Individual-coefficient t-tests tell us whether we can reject the null hypothesis that some or all of the individual coefficients are zero. Covariance tests investigate whether particular coefficients differ across the customer subsamples.

II. Dataset Construction and Description

Our sampling procedure imposes four labor-saving screens. First, we see ourselves as sampling from the universe of loan customers whose banks happened to participate in each of the ten largest combinations of U.S. domestic banks during 1991-2001. Using Loan Pricing Coroporation's (LPC) Dealscan database, we identify customer firms for which the combining banks served as sole lenders or lead lenders of a syndicate at the time of the merger announcement.[2]

[2] The Dealscan database provides details of loans over $100,000 compiled from 13Ds, 14Ds, 13Es, 10Ks, 10Qs, 8Ks, and S-series (registration) documents that publicly held companies and

Second, we sample only those customers that meet the following data-availability restrictions:

1. are traded on either the NYSE, ASE, or OTC;
2. have daily returns available on *CRSP* during and 210 days prior to the announcement window;
3. are traded on at least 30% of the designated trading days; and
4. have balance sheet and income statement data on *Compustat*.

Next, we delete observations whose SIC code (= 6) classifies them as financial companies, on the grounds that abnormal returns for these customers may be contaminated by changes in their prospects as competitors of the proposed mega-institution. Finally, to lessen distortion associated with the concurrent release of important idiosyncratic information, we delete firms whose event returns exceed 15 percent in absolute value.

Merger and Market Characteristics. Takeovers raise "issues" of governance, whose resolution can be more or less friendly to target management. As Table 1 indicates, *SNL DataSource* characterizes six of the ten megadeals as "mergers of equals." In merger-of-equals (ME) combinations, it is anticipated that more managers of target banks will survive in important roles than when the target is absorbed unequally. To test whether the pre-existing relationship value of target customers is conserved more fully in ME combinations, we define the indicator variable D_{ME}, which equals one in ME deals and is zero otherwise.

Mergers may expand an acquirer's share of existing markets and/or expand its product line or geographic footprint. Microeconomic theory indicates that a sizeable in-market acquisition is likely to enhance a megabank's market power. Seven of the ten megamergers may be described as in-state acquisitions. Four of these show enough market overlap to be designated in-market. A zero-one dummy variable (D_{IM}) takes on the value one for customers whose banks engage in an in-market merger. We classify the other six combinations as either a market expansion (two cases), or a hybrid (four cases)

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those privately held companies with public debt outstanding file with the Securities Exchange Commission. Lead lenders in syndicated loans are identified from the LPC Dealscan database if the bank's role in the syndicate is characterized by titles such as arranger, co-arranger, administrative agent, agent or co-agent.

based on the degree of deposit-market overlap. The final column of Table 1 lists states for which the combining banks each previously serviced at least one percent of deposits. Assuming that in individual state banking markets a bank's deposit and loan shares are highly correlated, we define a zero-one dummy (D_{OL}) that equals unity for customers located in states in which both partners' have at least one percent of the deposit market. For example, Norwest and Wells Fargo overlapped in Arizona, Nevada, and Texas.

Across the ten mergers, the respective sizes of the customer subsamples are: 1,016 target-bank customers; 1,292 acquirer customers; and 104 joint customers (4.7 % of the aggregate sample). A zero-one dummy variable (D_J) takes on the value one for joint customers. All but 11 of the joint observations occur in three merger-of-equals combinations: Chemical-Chase; First Union-Wachovia; and Fleet-BankBoston. In mergers of equals, joint customers may be better positioned to deal with the new management structure, but they also lose an alternative funding outlet. In no case, do significant differences emerge between them and other customers. The number of customers of all kinds is 2,204 (= 1,016 + 1,292 – 104).

As shown in Table 2, the six ME combinations account for 75.6 percent of total customers: 91.0 percent of target customers and 62.4 percent of acquirer customers. In-market mergers account for 32.0 percent of the target sample and 27.6 percent of the acquirer sample.

Customer Characteristics. The previous literature provides a guide in proxying for the competitiveness of each customer's funding environment (CC). Strahan and Weston (1998); Berger et al (1998); Karceski, Ongena, and Smith (2000); and Sapienza (2002) show that firm size is among the best proxies for customer bargaining power. Kanatas and Qi (2003) also identify age. Houston and James (1996) and Detragiache, Garella, and Guison (2000) show that multiple relationships reduce hold-up costs and adverse selection costs. While size, age, and relationships are important determinants of hold-up costs, Rajan and Zingales (1998) show that a firm must also have a financing need. Consistent with these prior studies, we constructed the following measures:

CA: Log of asset size[3] (in $million).

YT: Log of number of years that the firm's stock had been trading publicly.[3]

[3] The Appendix describes how these variables are constructed in a reproducible way.

D_{MR}: Zero-one dummy variable that equals one only for customers that have multiple banking relationships.

D_{PB}: Zero-one dummy variable that takes on the value one for corporations with public bonds outstanding.

FN: External Financing Needs,[3] (defined as planned investment minus internally generated funding).

Based on the joint findings of the previous literature, we define a corporation as potentially "credit-constrained" when it lies in the less-favorable tail of the distribution of each of the last five variables, that is when:

$D_{PB} = 0$,

YT < log of 11 years,

CA < log of $1 Billion,

FN > 0, and

$D_{MR} = 0$.

A zero-one dummy variable (D_{CC}) assigns a value of one to customers that meet this condition.

Sample Description and First-Round Tests. Table 2 reports the mean value of all variables defined so far for the all-customer sample and for the subsamples of target and acquirer customers. The table also includes information on the median asset size and market capitalization of target, acquirer, and credit-constrained customers.

Although the means of all five customer characteristics differ significantly between the target and acquirer subsamples, only one merger characteristic (D_{ME}) does at the 1 percent level. Interestingly, with respect to funding needs and alternative credit access, target customers seem more favorably situated on average than acquirer customers, although the difference in the mean value of D_{CC} fails to reach statistical significance at the 1 percent level.

Mean abnormal returns are statistically insignificant for all three customer groups. However, the proportion of ARs that is negative (47 percent in each case) differs significantly from 50 percent.

Table 3 breaks out the two-day mean CAR for the individual megamergers. Pooling joint customers with other target customers, the table also reports mean CARs

separately for target and acquirer customers. Target customers are significantly affected in three cases, while effects on acquirer customers are never significant. Target customers benefited in the market-expansion NationsBank/BankAmerica merger, and lost value in the largely in-market mergers of BankAmerica with Security Pacific and Fleet with BankBoston.

III. Regression Analysis of Effects of Customer and Merger Characteristics on Abnormal Returns

Table 4 estimates two versions of equation (3) for three sample groups. On the grounds that joint customers have lost an independent relationship, joint customers are pooled with target customers and eliminated from the acquirer subsample. However, except that this makes the subsamples closer in size, our qualitative findings are not sensitive to pooling decisions.

The first block of equations investigates the impact of merger characteristics and the credit-constraint indicator on event returns without controlling for other customer characteristics. Target customers suffer significantly if their bank is not treated as an equal and if they are credit-constrained. Controlling for other merger characteristics, credit constrained customers lose 1.2 percent of their value and target customers where their bank is not treated as an equal loose 0.8 percent. Relative to other target customers, credit constrained customers where their bank is not treated as an equal loose 2.0 percent of their value. Acquirer customers benefit from strictly in-market mergers (0.8 percent), but are harmed if the partners' larger geographic footprints materially overlap (-1.0 percent). F-tests reported at the bottom of the table establish that coefficient for the market-overlap, in-market, and credit-constraint indicators differ significantly between the target and acquired subsamples.

The second set of regression experiments show that asset size significantly ameliorates adverse effects, especially for target customers. This is our strongest and most important result. In both panels, target customers experience significantly negative effects, while acquirer customers suffer only when the partners' out-of-market geographical footprints overlap. Target customers suffer more: the smaller they are, when they may be classified as credit-constrained, and when managers of their bank are

not going to be treated as equals. Perhaps, surprisingly, at the margin and controlling for size and other characteristics, having public bonds outstanding or multiple relationships appears to act as a signal of potential noncohesiveness in the relationship that reduces the profitability to the post-merger megabank of offering the customer as good a deal as it might previously have received.[4]

The expanded regressions tell us that customers' stake in banking megamergers vary with their economic condition and with characteristics of the merger. Although some target customers are likely to be harmed, customers of the acquirer are not likely to suffer much. The positive slope of the size coefficient assures us that, for large-enough size (C_A^*), adverse effects from other circumstances are overshadowed by benefits of size. In fact, for the customer sample as a whole, value-weighting the CARs produces an increase in capitalization of $47 billion.

For a target customer, the breakeven point, $C_{A,T}^*$, may be calculated as the value at which the positive impact of $C_{A,T}$ just equals the sum of the -0.02106 intercept and other relevant considerations. Using the coefficients from an unreported regression of target CARs on C_A, the effect of the negative intercept washes out when $C_{A,T}$ equals about 7.4. This corresponds to a customer asset size of $1.65 billion. Because this value lies above the $1.5 billion asset size of the median target customer and firms represented in the CRSP and Compustat databases are disproportionately large, it appears that, in the typical megamerger, more than half of target customers suffer some discomfort.

As the banking industry continues to consolidate, it will become important to size this discomfort and for society to consider explicitly whether and how to protect the interests of small and credit-constrained target customers in megamergers.

IV. Summary and Implications

Acquirers absorb all tangible and intangible items on the economic balance sheet of target banks. Intangible items include charters, strategies, managerial skillsets, and—

[4] The existence of outstanding bonds and multiple relationships may proxy for the potential loss in future benefits of these relationships. As shown in a survey of the Association of Finance Professionals (AFP), large banks may force companies to buy both commercial and investment banking services from them and banks have reportedly threatened to terminate their credit relationship for customers using a competitors underwriting services. (Association of Finance Professions, 2004 Credit Access Survey, www.afponline.org).

as emphasized here—access to established customers. In any repeat business, customers relationships are important assets. This paper studies whether and when stockholders of customer firms worry about whether, under the new regime, their borrowing capacity will decline or credit terms become more rigorous.

On average in the ten merger deals studied here, acquirer customers fared much better than customers of target banks. In our sample target customers experienced significantly negative two-day returns in three circumstances. Small credit-constrained corporations lost on average $3 million in market cap. In unfriendly and in-market combinations, adverse effects were more common. Stockholders of target customers lost an average of $46 million in unfriendly mergers and $31 million in in-market deals.[5] Although regression analysis puts a finer edge on these differences, they are visible even in the individual market value changes of firms.

These findings are worrisome because the consolidation of large U.S. banks shows few signs of stopping. In the first half of 2004, Morgan dealt for Bank One and Keycorp will join the list of top-ten banks if and when its in-market deal with CharterOne goes through.

Our results suggest bank consolidation may adversely affect the job-creating capacity of the small-business sector. For this reason, we urge federal officials to ask their research staffs to see whether they can replicate our results across larger samples of post-1990 banking mergers and to place increased emphasis on acquirer plans for preserving target-bank relationships a larger role in the process by which they evaluate proposals to consolidate large banks.

[5] All market value averages are based on value-weighting the CARs to calculate a dollar value change in the firm's market value.

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Table 1: Ten Largest Combinations of U.S. Banks, 1991-2001

Acquirer/Target	Announce date	Completion/ Termination date	Merger of equals Yes/No	In-state buyer Yes/No	Geographic Character	States with non-negligible market overlap (both banks > 1% deposits)
BankAmerica Corp./ Security Pacific Corporation	08/12/1991	04/22/1992	No	Yes	In-Market	CA, WA
Chemical Banking Corporation/ Chase Manhattan Corp.	08/28/1995	04/01/1996	Yes	Yes	In-Market	NY
Wells Fargo & Co./ First Interstate Bancorp	01/24/1996	04/01/1996	No	Yes	In-Market	CA
Bank One Corp./ First Chicago NBD Corp.	04/13/1998	10/02/1998	Yes	Yes	Partial Overlap	IN, IL
NationsBank Corp./ BankAmerica Corp.	04/13/1998	09/30/1998	Yes	No	Market Expansion	
Norwest Corp./ Wells Fargo & Co.	06/08/1998	11/02/1998	Yes	No	Partial Overlap	AZ, NV, TX
Fleet Financial Group/ BankBoston Corp.	03/14/1999	09/30/1999	Yes	Yes	In-Market	MA, RI, CT, NH
Chase Manhattan Corp./ J.P. Morgan & Co.	09/13/2000	12/31/2000	No	Yes	Market Expansion	NY
Firstar Corp./ U.S. Bancorp	10/04/2000	02/27/2001	No	No	Partial Overlap	IA
First Union Corp./ Wachovia Corp.	04/15/2001	09/04/2001	Yes	Yes	Partial Overlap	NC, GA, VA

Table 2: Summary Statistics on Variables Used in Subsequent Regression Tests

Variable definitions are included in the Appendix.

Variable	All Customers	Target Customers (includes Joint Customers)	Exclusive Acquirer Customers	P-values for Differences Observed Between the Last Two Columns
No. of Observations	2204	1016	1188	N/A
D_J	4.67%	10.14%	N/A	N/A
Merger and Market Characteristics				
D_{ME}	75.59%	91.04%	62.37%	0.0001
D_{IM}	29.63%	31.99%	27.61%	0.0248
D_{OL}	9.57%	10.93%	8.42%	0.0461
Customer Characteristics				
D_{PB}	56.76%	62.40%	51.94%	0.0001
CA	7.1370	7.3064	6.9921	0.0001
YT	2.2421	2.3319	2.1654	0.0001
FN	0.0225	-0.1330	0.1556	0.0011
D_{MR}	60.44%	65.75%	55.89%	0.0001
D_{CC}	7.35%	6.00%	8.50%	0.0251
Abnormal Returns (t-stat below coefficient values)				
CAR (0,+1)	-0.07 (-0.30)	-0.03% (-0.93)	-0.11% (-0.45)	0.6551
Percent Negative CAR (0, +1)	46.82% (2.98)	46.85% (2.10)	46.80% (2.20)	0.9853
Descriptive Statistics for Customers (median values below mean values)				
Sales (MM$)	4,657 994	6,216 1,375	3,321 716	0.0001
Market Value Assets (MM$)	5,139 1,285	6,379 1,695	4,078 1,096	0.0001
Market Cap (MM$)	1,363 942	1,488 414	1,256 326	0.3152
Years on CRSP	13.3 11.0	14.3 13	12.5 10	0.0001
For Subset of Credit-Constrained Customers (median values below mean values)				
Market Cap (MM$)	77 33	83 21	73 38	

Table 3: Mean Cumulative Abnormal Returns Experienced by Customers of the Target and Acquirer in Individual Megamergers

	All Companies	All Customers of the Target	Exclusive Customers of the Acquirer	Difference and T-test for Difference
All mergers				
Firms	2204	1016	1188	
CAR (0, 1)	-0.07%	-0.03%	-0.11%	0.08%
t-stat	0.30	0.93	-0.45	0.99
For Each merger				
BankAmerica Corp./ Security Pacific Corporation				
Firms	69	28	41	
CAR (0,1)	-0.13%	-0.40%	0.05%	-0.45
t-stat	0.19	-0.22	0.42	0.44
Chemical Banking Corporation/ Chase Manhattan Corp.				
Firms	202	58	144	
CAR (0,1)	0.20%	-0.33%	0.41%	-0.74%
t-stat	1.15	-0.19	1.48	0.95
Wells Fargo & Co./ First Interstate Bancorp				
Firms	71	37	34	
CAR (0,1)	-0.16%	-1.25%	1.04%	-2.29%
t-stat	-1.32	-2.82***	1.03	-2.70***
Bank One Corp./ First Chicago NBD Corp.				
Firms	275	188	87	
CAR (0,1)	0.16%	0.25%	-0.03%	0.28%
t-stat	1.02	1.12	-0.16	0.50
NationsBank Corp./ BankAmerica Corp.				
Firms	544	316	228	
CAR (0,1)	0.08%	0.23%	-0.12%	0.34%
t-stat	1.26	2.42**	-0.90	2.25**
Norwest Corp./ Wells Fargo & Co.				
Firms	89	63	26	
CAR (0,1)	-0.16%	-0.38%	0.35%	-0.73%
t-stat	-0.67	-1.01	0.35	0.84
Fleet Financial Group/ BankBoston Corp.				
Firms	311	131	180	
CAR (0,1)	-0.73%	-0.98%	-0.55%	-0.43%
t-stat	-2.04**	-2.00**	-0.98	0.89
Chase Manhattan Corp./ J.P. Morgan & Co.				
Firms	368	13	355	
CAR (0,1)	-0.44%	-1.06%	-0.42%	-.64%
t-stat	-1.84	-0.90	-1.70	0.56
Firstar Corp./ U.S. Bancorp				
Firms	30	6	24	
CAR (0,1)	0.56%	0.15%	0.67%	-0.52%
t-stat	1.06	0.13	1.12	0.39
First Union Corp./ Wachovia Corp.				
Firms	245	73	172	
CAR (0,1)	0.49%	0.69%	0.40%	0.29%
t-stat	2.10**	1.53	1.51	0.46

** Significant at 5 percent

*** Significant at 1 percent

Table 4 Cross-sectional analysis of returns

The dependent variables is the cumulative abnormal return, CAR(0,1), for loan customers surrounding the announcement of a bank merger. Dependent and independent variables definitions are specified in the Appendix. t-values are shown below each coefficient. *, **, *** represent significance at 10, 5, and 1 percent, respectively.

	All Customers	Target Customers (includes Joint)	Exclusive Acquirer Customers	All Customers	Target Customers (includes Joint)	Exclusive Acquirer Customers
Intercept	-0.00094	0.00074	-0.00091	-0.01441	-0.02106	-0.00817
	-0.62	0.55	-0.58	-3.29***	-3.42***	-1.34
C_A				0.00294	0.00528	0.00138
				4.39***	5.33***	1.51
D_{PB}				-0.00548	-0.00549	-0.00592
				-2.55**	-1.73*	-2.04**
D_{MR}				-0.00211	-0.01100	0.00337
				-1.09	-3.80***	1.30
FN				-0.00048	-0.00017	-0.00061
				-1.14	-0.27	-1.07
YT				-0.00118	-0.00244	-0.00056
				-1.26	-1.79*	-0.44
D_T	0.00165			0.00113		
	0.80			0.54		
D_J	0.00422	0.00362		0.00421	0.00442	
	1.00	0.92		0.99	1.12	
(D_T) $(1 - D_{ME})$	-0.00694	-0.00792		-0.00726	-0.00888	
	-1.43	-1.70*		-1.50	-1.93*	
(D_A) $(1 - D_{ME})$	-0.00187		-.00170	-0.00322		-0.00218
	-0.83		-0.73	-1.43		-0.91
(D_T) D_{OL}	0.00349	0.00089		0.00347	0.00053	
	0.86	0.23		0.85	0.14	
(D_A) D_{OL}	-0.01042		-0.01171	-0.01052		-0.01131
	-2.76***		-2.75***	-2.78***		-2.62***
(D_T) D_{IM}	-0.00282	-0.00075		-0.00348	-0.00368	
	-0.71	-0.20		-0.88	-0.97	
(D_A) D_{IM}	0.00837		0.00847	0.00747		0.00873
	2.81***		2.61***	-2.49**		2.64***
(D_T) D_{CC}	-0.01199	-0.01180		-0.00955	-0.01125	
	-2.40**	-2.45**		-1.80*	-2.04**	
(D_A) D_{CC}	0.00173		0.00172	0.00412		0.00449
	0.45		0.42	0.98		0.96
Number of Observations	2204	1016	1188	2204	1016	1188
R-squared	0.0110	0.0121	0.0096	0.0212	0.0457	0.0167
Adjusted R-squared	0.0065	0.0072	0.0062	0.0145	0.0362	0.0092
P-value on F-stat	0.0067	0.0303	0.0225	0.0001	0.0001	0.0184
F-tests of Coefficients	**p-values**			**p-values**		
$(D_T)(1 - D_{ME})=(D_A)(1 - D_{ME})$	0.3511			0.4593		
(D_T) D_{OL} = (D_A) D_{OL}	0.0241			0.0228		
(D_T) D_{IM} = (D_A) D_{IM}	0.0377			0.0324		
(D_T) D_{CC} = (D_A) D_{CC}	0.0324			0.0415		

APPENDIX EXPLAINING THE PRECISE CONSTRUCTION OF VARIABLES FROM COMPUSTAT, CRSP, FEDERAL RESERVE, LPC, and SNL DATABASE SOURCES

Variable Name	Description
CAR(0,1)	The Cumulative Abnormal return for the 2-day event period combining the day of the announcement and the day following the announcement [CAR(0,1)]. For all abnormal returns, the estimation period is the 200 days ending 11 days prior to the announcement.
D_{PB}	An indicator variable that equals 1 if the firm has public debt outstanding and is 0 otherwise (based on Compustat data).
CA	The natural log of the market value of assets in $ millions for the firm. From Compustat, the market value of assets = data6 - data60 + market capitalization - data50. All outlying values are winsorized at the 5^{th} or 95^{th} percentile.
YT	The log of the number of years that the company has been listed on either the NYSE, AMEX, or NASDAQ, where the maximum number of years was set at 25 (based on CRSP data).
FN	The average external finance needs during the last 3 years – based on the method developed by Rajan and Zingales (1998). If less than 3 years of data are available, we employ the available data. From Compustat, FN = (data128 - (data18 + data14) + (data3 - data3a) + (data2 - data2a) - (data70 - data70a) - (data71 - data71a))/data128. Outlying three-year average values are winsorized at the 5^{th} and 95^{th} percentile.
D_{MR}	An indicator variable that equals 1 if the firm has more than one banking relationship as shown in the LPC database, and is 0 otherwise.
D_{ME}	An indicator variable that equals 1 if the merger was a merger of equals as defined in SNL DataSource and presented in Table 1; equals 0 otherwise.
D_{OL}	A zero-one dummy variable taking on the value of 1 for customers headquartered in one of the states that show significant overlap in market share as defined in the Federal Reserve Database and presented in Table 1; equals 0 otherwise.
D_J	An indicator variable that takes on the value of 1 if the firm is a customer of both the target and the acquirer bank, and is 0 otherwise.
D_T	An indicator variable that equals 1 if the firm is a customer of the target bank, and is 0 otherwise.
D_A	A zero-one dummy variable that takes on the value of 1 for customers of the acquiring institution, and is 0 otherwise.
D_{CC}	An indicator variable that takes on the value of 1 if the firm is credit-constrained. We define credit-constrained customers from Compustat: if YT < **11** and CA < **500** and FN > **.001,** D_{PB} **= 0,** and D_{MR} **= 0**; otherwise its value is 0.