

Community Bank Purchase Price Premiums: Characteristics of High Value Targets

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INTRODUCTION

The wealth effects of bank acquisitions have been the subject of numerous academic studies during the past 25 years. Consistent with findings from across all industries, the consensus regarding bank mergers is that significant negative stock returns accrue to the owners of acquiring firms. The evidence regarding acquired firms is less clear and has tended to vary across time periods, institutional characteristics, ownership profiles, and research methodologies. As a corollary to investigations into stock price reactions, prior research has also traced the financial performance of banks involved in mergers. Taken as a whole, these studies find no general evidence of increased post-acquisition returns on investment nor to they indicate a clear reduction of risk or other enhancements to financial performance.

While the studies have gone on much longer, consolidation in the banking industry has been most dramatic during the past decade. Approximately 2,500 mergers have taken place during that time and, while the pace of acquisitions has slowed, the sheer size of the deals has increased and has driven the industry towards increased concentration; all of this, notwithstanding the lack of evidence that acquiring bank shareholders benefit from acquisitions.

Continued mergers within the industry have been supported by both deregulation and opportunities for scale economies associated with technological innovation and adaptation. These factors have led to geographic and product line expansion by banking organizations. And, perhaps the only truly limiting factor in overall consolidation during recent years has been the declining number of banks available for acquisition – a phenomenon offset only by the 1,400 de novo institutions created during the same period. Between January 2001 and June 2004, the number of U.S. banks, now standing at 8,169, declined by approximately 700 (10%). Mergers and acquisitions of banking institutions continued throughout 2004 despite recent increases in short-term interest rates that are most often associated with decreases in bank profitability.

In early 2005, the ten largest banks in the U.S. account for over one-half of all banking assets. However, as Federal Reserve Chairman Alan Greenspan noted recently, consolidation within the industry is not simply a large bank phenomenon. In fact, almost half of the transactions since 1995 have involved acquirers and targets with less than 1 billion in total assets.¹ It is this segment of the acquisition market that is the focus of this study. Banking institutions with less than \$1 billion in total assets have traditionally been classified as “community banks”. And, because most community banks are much smaller, we focus specifically on the characteristics of target institutions with \$1 billion or less in total assets.

This study describes profitability, expense, operational, geographic, and capital characteristics associated with the prices paid by acquirers. The purpose of this research is to provide community bankers with information about which factors are most associated with purchase price premiums when community banks acquire other community banks.

BACKGROUND

As noted, bank mergers and acquisitions have been the focus of many studies and the preponderance of that research has focused in three primary areas including;

1) *Shareholder wealth effects of mergers and acquisitions and related financial performance measures*

DeLong (2001) finds that abnormal returns increase with the size of the target relative to bidders upon announcement of the merger. These returns, however, were found to decrease for target firms in the period immediately preceding the merger. Ely and Song (2000) conclude that a smaller number of large acquisitions are more advantageous to shareholders than a large number of small acquisitions. The authors also note that, by bidding the price too high, acquiring firms can shift potential gains to the shareholders of target firms. Furthermore, potential efficiency gains can result if the acquisition is handled poorly causing the loss of talented staff or valued customers.

Toyne and Tripp (1998) investigate interstate mergers that took place between 1991 and 1995 and, consistent with acquisition studies across industry groups, find that abnormal returns to targets are significant and positive while those to bidders are significant and negative. They also conclude that the combined wealth effects upon announcement are negative.

2) *Efficiency gains resulting from economies of scale and/or scope*

Peristaini (1997), in a study focusing on profitability, operating cost control and related measures, finds only modest support for economies of scale and, in the case of in-market mergers, no evidence for efficiency gains. The author also notes that greater pre-merger differences in performance between acquiring and target firms lead to higher post-merger gains when the pre-merger target is an underperformer. DeLong (2001) concludes that mergers

¹ Remarks by Federal Reserve Chairman Alan Greenspan at the American Bankers Association Annual Convention, New York, New York ; October 5, 2004

between institutions with the same geographic and activity focus enhance shareholder value while those stressing diversification of scope and region do not create wealth.

Spiegel and Gart (1996) point out that most mergers will continue to be “in-market” resulting in improved operating efficiency with some increase in product and regional scope as banks seek to improve credit quality through diversification. The authors summarize a number of oft-cited motivations for acquisitions including growth in the customer base, operational efficiency, economies of scale resulting in the dilution of fixed costs, product and geographic diversification, and effective use of existing capital.

3) Characteristics and motives of banks involved in merger activities

Ely and Song (2000), making no claims to empirical support, summarize a number of motivations for acquisitions including growth in the customer base, operational efficiency, economies of scale arising from the absorption of fixed costs, product and geographic diversification, and effective use of existing capital.

Akhigbe, Madura, and Whyte (2004) find that larger institutions having lower asset returns and higher capital levels are more likely to be acquisition targets. They also conclude that higher levels of non-performing loans and lower market-to-book ratios increase the probability that a bank will be acquired. The present study extends this research by focusing on target-specific and regional factors associated with acquisition price premiums.

SAMPLE AND METHODOLOGY

Data for acquired and comparative peer institutions is taken from the Highline Banking Data Services – Bank Focus Pro Online database. Descriptive transaction data for all bank mergers, large and small, the years 1994-2004 are provided in Exhibit 1. Although the number of total bank acquisitions has declined in recent years, the average value per deal is greater as is the total value of all transactions. In addition, acquisition prices relative to target income and tangible equity are at historical highs.

As noted previously, this study focuses on bank acquisitions involving entire banks or holding companies, exclusive of sales of branches or other partial asset sales, and addresses transactions involving acquirers and targets each with less than \$1 billion in total assets.

Exhibit 1**Total Bank Merger Transactions and Average Pricing Data for 1993 – 2004**

	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994
Total # of Transactions	223	230	178	232	262	323	444	385	387	411	397
Price to Equity	2.18	2	1.83	1.79	1.94	2.18	2.5	2.09	1.81	1.7	1.62
Price to Tangible Equity	2.32	2.1	1.89	1.87	2.03	2.28	2.59	2.17	1.85	1.74	1.65
Price to Net Income	24.23	24.02	22.28	20.11	17.97	22.24	21.94	20.02	18.32	16.1	16.5
Price to Total Assets (%)	18.65	17.45	16.07	16.77	18.31	20.3	23.64	19.89	17.07	15.27	14.59
Price to Total Deposits (%)	22.86	21.09	19.14	20.07	22.94	24.25	27.92	23.11	19.81	17.64	16.74
Premium to Core Deposits (%)	15.94	12.86	10.58	11.36	11.68	13.66	18.91	13.21	9.87	7.98	6.85
Average Purchase Price (\$000)	635,928	348,250	55,926	160,701	419,883	232,031	679,395	228,373	110,279	170,693	36,880
Total Purchase Price (\$000)	\$117,010,735	64,078,011	8,277,116	31,979,463	89,854,982	62,648,350	252,735,011	75,363,212	35,289,341	56,840,857	12,871,114

Exhibit 2

Summary of Merger Transactions of Whole Institutions for which Acquirers and Targets Had Assets Under \$1 Billion (2003-2004)

	2003-2004
Total # of Transactions	165
Price to Equity	1.87
Price to Tangible Equity	1.92
Price to Net Income	24.46
Price to Total Assets (%)	15.90
Price to Total Deposits (%)	18.74
Premium to Core Deposits (%)	9.58
Average Purchase Price (\$000)	18,214

The focus on purchases of whole banks reduced the 2003-2004 totals from 453 to 359 transactions. A further reduction, consistent with Dr. Greenspan's observation that approximately one-half of today's transactions involve two parties with less than \$1 billion in assets, to 165 transactions resulted from imposition of the asset size constraints.

A comparison of price and related data is provided in Exhibit 2. This provides a descriptive illustration of the fact that small transactions are characterized by lower overall acquisition prices and premiums relative to the asset and overall deposit bases. The average core deposit premium paid by smaller acquirers for smaller acquirers is also lower. While this points to the possibility that mergers among smaller institutions in general demand lower premiums, the descriptive evidence is not conclusive as the price to net income ratio is comparable to that indicated in the profile of all recent mergers provided in Exhibit 1.

In order to determine whether specific financial performance attributes are associated with higher premiums in these smaller mergers, a series of regressions is performed using three price metrics as independent variables. Each of these measures, price/total assets, price premium above book value/core deposits, and price/last 12-month net income, view the amount paid for the acquired institution from different, but important, financial vantage points.

A series of OLS regressions are used to identify factors associated with acquisition prices, specifically:

$$\text{PRICE} = \alpha + \beta_1 \text{TASSETS} + \beta_2 \text{BTASSETS} + \beta_3 \text{COREDEP} + \beta_4 \text{CAPITAL} + \beta_5 \text{NONPERFORM} + \beta_6 \text{ROA} + \beta_7 \text{OPEXPENSES} + \beta_8 \text{NIINC} + \beta_9 \text{EFFICIENCY} + \beta_{10} \text{EFFICIENCY} + \beta_{11} \text{REGION} + \epsilon$$

Where:

PRICE = transaction price ratios in the series of regressions (price/total assets, price premium above book/core deposits, and price/last 12-month net income)

TASSETS = natural log of the target bank's assets

BTASSETS = natural log of the difference between the buyer and target firm's assets

COREDEP = core deposits divided by total deposits

CAPITAL = equity capital to asset ratio

NONPERFORM = percentage of nonperforming loans

ROA = Net income divided by total assets of the acquirer

OPEXPENSES = last 12 month expenses divided by 12 month average total assets

NIINC = last 12-month non-interest income divided by 12 month average total assets

EFFICIENCY = operating expenses divided by fee and net interest income

REGION = dummy variable providing a relative comparison of 6 geographic regions

Additional attrition in the sample resulted from the fact that not all data was reported as related to the merger activity.

RESULTS

The first two regressions summarized in Exhibit 3 use price/total assets and price/core deposits as independent variables and were performed with 122 observations; the third, investigating the price paid relative to the last-12 month net income incorporated 95 available observations. However, it should be noted that the first two regressions were also run with the limited sample with no appreciable change in the coefficients or the significance levels.

The size of the target firm (TASSETS) was not found to be independently related to the acquisition price; however, in each regression, the difference in the buyer and target asset size (BTASSETS) did have a significant and consistent impact on the purchase price. Therefore, we conclude that, among community bank acquisitions, buyers pay more in relative terms for comparably smaller institutions. This may be the result of the often deliberate but incremental growth strategies of larger community banks that engage in multiple, and often simultaneous, acquisitions as they expand in rural and suburban areas.

Interestingly, core deposits did not appear to be positively associated with the price paid for community banks. While core deposits (COREDEP) are certainly attractive, it may simply be that many small to moderate-sized acquirers may currently have access to a sizable amount of core depositors. Furthermore, target firms having a large base of core deposits also often have less loan demand; a potentially associative factor that may offset the advantage of high levels of core deposits.

Acquiring firms are willing to pay a higher price per unit of assets for institutions that already have a strong capital base. Consequently, the equity/asset ratio of community bank targets

(CAPITAL) was found to be positively associated with price/asset. This association with the asset-based price metric is most likely due to the direct regulatory link between capital and asset levels. Further research should investigate the possibility that the positive association between capital levels and higher premiums is a proxy for an existing and, comparatively higher quality, asset portfolio. Of course, these higher capital levels also provide for continued growth for the acquiring institutions.

Exhibit 3
Regression Results with Alternative Relative Price
Measures as the Dependent Variable

	<i>Price/Assets</i>	<i>Premium/Core Deposit</i>	<i>Price/Net Income</i>
Intercept	-4.30895	-0.98487	-7.08078
TAssets	1.011181	1.618273*	6.23194**
BTAssets	1.058991**	2.120347***	3.370816*
Coredep	4.028091	-4.96525	37.98243*
Capital	0.75464***	-0.15059	0.9766*
Nonperforming	-0.39381	-0.74763**	0.961414
ROA	1.919909***	2.337515***	-11.8632***
Opexpenses	0.759167	-0.13446	0.378043
NIINC	-1.48733	-0.55018	0.222363
Efficiency	-0.09231**	-0.08686*	0.202283
Branch	3.739561	6.558996**	-3.85757
<i>Region: Midwest</i>	-0.15045	-0.4387	-6.34495
Northcentral	-1.51873	-2.42356	-4.72294
Northeast	3.913844**	5.051593**	-6.51556
Southeast	1.305313	1.701119	-4.81833
West	1.473882	1.531203	-2.85418
<i>R-Square</i>	0.582566	0.556222	0.565455
<i>Adjusted R-Square</i>	0.523496	0.493423	0.477371

The level of nonperforming assets was negatively and significantly associated with the premium above book paid in relation to the level of core deposits. Interestingly, however, no linkage was seen among the level of operating expenses and the price paid. The ROA variable indicates a strong and positive correlation with both price paid per unit of assets and the premium above book value paid for core deposits. However, the negative and significant association with the premium paid above the last 12-month net income is indicative of a willingness to pay more in relative terms for poor performers than for those with strong earnings. Low net income, as compared with peer institutions, may provide new management with additional room for improvement. This is not to suggest that acquirers pay more for low performers – it is, however, to say that they do not decrease the price proportionally as performance wanes.

Finally, with regard to geographical position and span of operations, no evidence was found to suggest that a wider branch network (BRANCH) either benefits or detracts from the value of the target. However, evidence was found indicating that the higher prices are currently paid for banks located in the Northeast relative to the Southwest.

CONCLUSION

The level of target bank capitalization is positively and significantly related to higher prices per unit of assets. This finding is consistent with stronger capitalization being associated with strong asset quality and ongoing profitability.

We also find that community bank acquirers are willing to pay higher premiums for comparably smaller targets. This is consistent with a deliberate but diversified growth strategy for institutions seeking concurrent footholds in a number of rural and suburban communities.

Finally, we conclude that community bank acquirers, while certainly paying higher prices for targets exhibiting greater profitability, also tend to pay marginally less (more) as net income increases (decreases). That is to say that, while acquirers will pay less for community banks that are not profitable, they will tend to pay higher prices relative to net income as that profitability diminishes. This finding is consistent with new management's expectation that they will be able to make the changes needed to improve the profitability of poor performers.

SELECTED REFERENCES

- Akhigbe, Akibe. Jeff Madura and Ann M. Whyte. 2004. "Partial Anticipation and the Gains to Bank Merger Targets." *Journal of Financial Services Research*. 26 (1). 55-72.
- Banning, Kevin C. 1999. "Ownership Concentration and Bank Acquisition Strategy: An Empirical Investigation." *International Journal of Organizational Analysis*. 7 (2). 135-152.
- Delong, Gayle L. 2001. "Stockholder Gains from Focusing Versus Diversifying Bank Mergers." *Journal of Financial Economics*. 59 (2). 221-260.
- Ely, David P. and M. H. Song. 2000. "Acquisition Activity of Large Depository Institutions in the 1990s: An Empirical Analysis of Motives." *The Quarterly Review of Economics and Finance*. 40. 467-484.
- Peristiani, Stavros. 1997. "Do Mergers Improve the X-Efficiency and Scale Efficiency of U.S. Banks?" *Journal of Money Credit and Banking*. 29 (3). 326-337.
- Rose, P. S. 1987. "The Impact of Mergers in Banking: Evidence from a Nationwide Sample of Federally Chartered Banks." *Journal of Economics and Business*. 39. 289-312.
- Spiegel, J. W. and A. Gart. 1996. "What Lies Behind the Bank Merger and Acquisition Frenzy?" *Business Economics*. 31 (2). 47-52.
- Toyne, M. F. and J. D. Tripp. 1998. "Interstate Bank Mergers and Their Impact on Shareholder Return: Evidence from the 1990s." *Quarterly Journal of Business and Economics*, 37(4). 48-58.