## Information Spillovers in M&A Execution and Valuation: Evidence from Commercial Banks

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**Abstract:** Deregulation of the U.S. banking industry in the 1980s and 1990s allowed bank mergers that were far larger, geographically diverse, and organizationally complex than markets had observed up to that point. Bank management promised substantial post-merger gains in operating efficiency and revenue generation, but actual performance tended to fall short of projections. The stock market has also tended to be a poor predictor of post-merger financial performance.

There are numerous explanations for the poor post-merger performance of banks – including theories based on managerial hubris, systematically biased accounting data, and industry disequilibrium – and there is some empirical support for these hypotheses. But there is little explanation for the inability of capital markets to accurately value bank mergers. We suggest a straightforward solution to this puzzle: even an efficient capital market cannot be expected to accurately value phenomena such as large, complex bank mergers which market participants have not observed in the past and hence do not yet fully understand. Similarly, bank managers cannot be expected to efficiently manage new processes for which 'best practices' have not yet been developed. Note that these propositions rely on learning-by-observing (i.e., the accumulation or spillover of industry-level information over time) rather than learning-by-doing (i.e., the accumulation of firm-level experience over time).

We test these propositions for 216 mergers of large, publicly traded U.S. banks announced and completed between 1985 and 1999. On average over our sample period, we find little evidence that bank mergers generated post-merger improvements in financial performance, and no evidence that the stock market accurately predicted post-merger financial performance. However, we find strong evidence consistent with learning-by-observing: immediately following periods in which bank mergers have been numerous, post-merger bank performance improves and stock market merger valuations become more accurate. We find no evidence consistent with an individual bank's ability to learn-by-doing.

We argue that our results are consistent with theories of semi-strong market efficiency, but we also argue that market efficiency sometimes requires market participants to have an especially wide range of information. This information set includes not just full information about the firms being priced, but also a full understanding of the events in which the firms are engaging, which in the case of large, complex bank mergers may only be revealed over a long period of time and observation.

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