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Bank M&A: A market power story?

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ABSTRACT

This paper analyzes capital market reactions to international bank M&A. We investigate the combined stock return patterns of targets, bidders, and their peers upon takeover announcement, and closing or withdrawal. We distinguish five common M&A hypotheses and relate characteristic and mutually exclusive abnormal stock return patterns to each hypothesis. The findings show that there are more investors who believe in gains through the exploitation of market power by the post-merger entity than investors who believe in any of the other motives tested in the paper. In a multinomial logistic model we show that patterns related to market power significantly concur with large relative target size, intra-industry mergers, and increasing market concentration, suggesting a substantial lessening of competition through M&A.

1. Introduction

Over the past years, the market for corporate control has changed global banking markets tremendously. Starting in the early 1990s, the consolidation within the international banking industry has steadily increased, leading to the present state of highly concentrated markets with just a few dominating players. The mergers and acquisitions (M&A) transactions which led to this consolidation not only shifted billions of dollars back and forth but also changed the market values of the parties involved for better or worse. What is responsible for market value changes are the shareholders of the target and bidder companies and their perception of the deal: Is it economically viable and will the combined entity benefit? Needless to say, corporate communication strategies try and 'sell' the deal to the shareholders. Looking at corporate press releases around mergers, the most frequently mentioned M&A rationale is the creation of synergies which will improve cash flows and enhance firm value. At least in theory, synergy creation seems to be a desirable M&A motive and it could be expected that capital markets show positive short-term share reactions following deal announcements. However, empirical evidence does not fully support this theory: Prior studies analyzing various samples of bank M&A in different regions and over different time periods do not consistently show the existence of such positive share price reactions following deal announcements. Depending on the focus of the analysis, aggregate short-term share price reactions following the deal announcements are mostly around zero or even slightly negative (Pilloff and Santomero, 1997). Only for some minor cases are the aggregate reactions positive (Cybo-Ottone and Murgia, 2000). There are two possible explanations for this phenomenon: Either capital markets do not fully believe in the materialization of synergies (or only given certain prerequisites) or investors perceive the alleged synergies to be nonexistent. The fundamental question arises: Which M&A rationale do capital markets believe in? And consequently, how can we adequately measure the perceived deal motive?

In this paper we focus our analysis on the question of whether or not shareholders believe in merger gains through market power exploitation. The idea behind what we call the *market power hypothesis* is straightforward. A merger of two banks in an already highly concentrated market can lead to oligopolistic market power. Due especially to the challenge of realizing economies of scale within the banking sector, we argue that shareholders might believe that a lessening of competition and an increase in market

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power may be a good opportunity for banks to achieve relatively safe merger gains. General economic theory suggests that higher market concentration caused by the ongoing consolidation of markets facilitates anticompetitive effects (see, e.g. Bester, 2007). Although previous empirical research is still inconclusive when it comes to the exact effects of higher market concentration and less competition between banks' profits (a thorough review can be found in Degryse and Ongena, 2008), we base our hypothesis on an industrial organization model of markets originally emerging from competition theory which suggests the possibility of market power exploitation in bank markets. In a Bertrand competition with homogeneous goods and switching costs, which is how we characterize the banking markets, takeovers result in increased individual market power and uncoordinated price effects. Thus, target and bidder, as well as all other market participants, hypothetically are able to demand higher prices and maximize their profits via exploitation of consumer surplus. Previous empirical tests of this and similar theories show conflicting strands of results. Strongly dependent on the time period and observed market, some papers find no or only negligible effects of competition on bank profit margins (e.g., Petersen and Rajan, 1995 or Coccorese, 2009) whereas other research finds that an increase in market power goes along with a simultaneous increase in profits in spite of efficiency losses (Turk-Ariss, 2010). The third strand of literature shows that a decrease in competition increases banks' profits. Among the latter are for example Cetorelli et al. (2007), Casu and Girardone (2006), Beck et al. (2006) and De Guevara et al. (2005) who consistently show that over the past two decades international banking markets have exhibited a significant increase in market concentration hand in hand with a simultaneous decrease in competition levels. Berger (1995) as well as Degryse and Ongena (2008) find significant and substantial price increases subsequent to M&A activities in the banking industry.

The contribution of this paper is an analysis of whether or not capital markets ex ante believe in the realization of market power effects. To address this question, we examine empirical stock return patterns. Since investors act upon the expected deal outcome, the combined abnormal stock return patterns of targets, bidders and their peers reflect the actually perceived motive underlying an M&A transaction. We assume that varying deal motivation results in different share price reactions. We theoretically suggest a specific stock return pattern for the market power hypothesis. In an event study we investigate actual cumulative abnormal returns (CARs) of targets, bidders and their peers upon takeover announcement and deal closing or withdrawal. Our methodology measures the de facto net effects of capital market reactions. If there are rival opinions on what merger motive might prevail, our methodology captures the dominating deal driver in terms of abnormal return magnitude, i.e. what the majority of investors think. To provide a thorough analysis of investors' perceptions of possible merger gains and to differentiate the market power hypothesis from other possible investor beliefs, we analyze four additional M&A rationales frequently found in the relevant literature and provide possible explanations other than market power for share price reactions upon takeover announcements. These are the merger wave, the pre-emptive merger, the financial distress and the synergy hypotheses. For all these hypotheses we derive theoretical stock return patterns and empirically find that the market power stock return pattern actually is the most frequent among all the patterns in our sample.

In reality, there clearly exist more than the five M&A motives explicitly investigated in our paper. Further deal drivers include, but are not limited to, corporate strategy such as expansion (e.g. in terms of increasing market share or entry into new markets), geographical or industrial diversification, or (mis-)valuation. We do not investigate certain other M&A motives for which it is hardly possible to derive specific stock return patterns. Nevertheless, our results include all the empirically observed patterns of our sample regardless of the corresponding hypothesis, and the results document the persistence of our findings. Even though the market power, merger wave, pre-emptive merger, financial distress and the synergy hypotheses have been analyzed in previous studies, this is the first paper to jointly test all five hypotheses and evaluate their relative ability to explain share price reactions in international bank M&A.

We analyze a sample of 600 bank M&A transactions within North America and Europe in the period from 1990 to 2008 and we find that the CAR pattern derived from the market power hypothesis occurs with by far the highest frequency (10.8% of all deals) and, hence, seems to be most relevant in international bank M&A. On the other hand, the merger wave (which occurs in 3.2%), pre-emptive merger (4.8%) and synergy hypotheses (4.2%) play a minor role in international bank M&A. Financial distress, by contrast, seems to be highly relevant, occurring with an average relative frequency of 9.1%. Moreover, our descriptive statistics and corresponding significance levels are in line with previous literature. To validate our findings, we use a multinomial logistic regression model to test the impact of deal- and firm-specific variables on the occurrence of the market power pattern relative to the other M&A hypotheses. We consistently show in our study that market power CAR patterns co-occur significantly with the fundamental characteristics of competition reduction such as large relative target size, intra-industry M&A, and increased market concentration. We run a variety of robustness checks. We conduct our event study based on different event windows and estimation methods. We investigate the underlying raw returns and examine significant subsamples based on CAR confidence intervals. We also test whether the different CAR patterns occur more or less frequently under different economic conditions.

The rest of this paper is structured as follows: Section 2 gives a short review of the prior M&A research on which we build our work. Section 3 explains the theory behind our main hypothesis, i.e. the market power hypothesis. In this section we also explain how we derive our expected CAR pattern based on the underlying theoretic notions of the theory. In Section 4 we briefly introduce the control hypotheses against which we test the market power hypothesis. Section 5 highlights our research methodology and related test statistics. We present our empirical results, including the multinomial logistic regression model in Section 6. In Section 7 we discuss the additional robustness tests we performed to validate our findings. Finally, Section 8 contains a summary and an interpretation of our empirical results.

2. Literature review

Empirical research on the background, conduct, and outcome of M&A transactions emerged in the late 1970s and early 1980s. Seminal research using event study methodology includes the work of Dodd and Ruback (1977), Dodd (1980), and Asquith (1983), who analyze the abnormal stock returns of targets and bidders upon takeover announcement and deal closing. Bradley et al. (1983) and Davidson et al. (1989) focus on the abnormal returns of targets and bidders involved in withdrawn M&A. Consistently, all authors conclude that takeover bids result in positive abnormal returns for targets and slightly negative abnormal returns for bidders. Although cancelation is bad news in the short run, targets are able to retain higher valuation in the long run (Bradley et al., 1983). Holl et al. (1997) investigate intra- and inter-industry M&A and find that vertical takeovers yield higher returns than horizontal mergers. Hviid and Prendergast (1993) and Dassiou and Holl (1996) analyze long-term M&A effects and show that withdrawn