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# How have M&As changed? Evidence from the sixth merger wave

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## Abstract

We examine the characteristics of the sixth merger wave that started in 2003 and came to an end approximately in late 2007. The drivers of this wave lie primarily in the availability of abundant liquidity, in line with neoclassical explanations of merger waves. Acquirers were less overvalued relative to targets, and merger proposals comprised higher cash elements. Moreover, the market for corporate control was less competitive, acquirers were less acquisitive, managers displayed less over-optimism and offers involved significantly lower premiums, indicating more cautious and rational acquisition decisions. Strikingly, however, deals destroyed at least as much value for acquiring shareholders as in the 1990s.

Keywords:

merger waves

public acquisitions

premium

shareholder gains

method of payment

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## Notes

Data are from Bob Shiller's web site ([www.irrationalexuberance.com/index.htm](http://www.irrationalexuberance.com/index.htm)).

Rhodes-Kropf, Robinson, and Viswanathan ([2005](#)) and Dong et al. ([2006](#)) found that acquirers were more overvalued than targets in the 1980s and 1990s.

Shleifer and Vishny ([1991](#)) reported that acquisitions during the fourth merger wave were more frequently financed with cash. Andrade, Mitchell, and Stafford ([2001](#)) found that the fraction of cash-financed deals during the 1980s was about 45%. Availability of liquidity is cited among the drivers of the fourth merger cycle that also include relaxation of regulatory restrictions that led to an increase in hostile deals and bust-up takeovers as well as a plethora of LBOs.

Officer ([2003](#)) reported that acquirers paid, on average, premiums of 55% in public acquisitions between 1988 and 2000.

Along these lines, McKinsey & Co. reported that during the latest M&A cycle (up to 2006), acquirers have been more disciplined about creating value for their shareholders (Dobbs, Goedhart, and Suonio [2007](#)).

The unreported total deal value for 1992 was \$160 billion.

A month is classified as merger-wave month if its detrended market P/E was above the average market P/E over the past 5 years.

We modify the five-industry classification from Kenneth French's website (Consumer, Manufacturing, HiTec, Healthcare, Other) by adding an additional category of 'Financials' (SIC codes 6000–6999), which was originally included within 'Other'.

However, where appropriate, we also examine in unreported tests whether our results are similar for deals by private acquirers or where the target is unlisted and find consistent patterns in most of the cases.

Including clustered acquisitions, however, does not materially affect our results.

Market value of assets is the book value of total assets minus the book value of common equity plus the market value of common equity. Alternatively, Tobin's Q can proxy for growth opportunities (Lang, Stulz, and Walkling [1989](#); Malmendier and Tate [2008](#)) and management effectiveness (Lang, Stulz, and Walkling [1989](#); Servaes [1991](#)). Nonetheless, results are similar when we use the market-to-book ratio instead of Tobin's Q.

This could potentially imply less scope for value creation through M&As during the sixth merger wave.

Using sales-adjusted cash reserves produces similar results.

A similar measure was used by Alexandridis et al. ([2010](#)) to proxy for competition at the country level. A more extensive sample is used for the construction of the competition measure that is based on the number of all listed firms acquired irrespective of the acquiring firm's public status. Using a measure based only on public acquisitions produces similar results.

Our results are similar when using a 5-year window as in Billett and Qian ([2008](#)) or other alternative specifications, such as 3- or 4-year windows.

Executive options data are manually collected from DEF 14A proxy statements in SEC filings.

For robustness, we also use the ratio of the offer price to the 30-day (−45, −15) volume-weighted average of the target's trading price as a premium measure, and our results remain very similar.

Although for brevity we do not report results based on this measure in all tables, they are always very similar to using the first measure.

Acquisition premium differentials are also statistically significant for all payment methods.

Alternatively, using a market-adjusted model where  $\alpha = 0$  and  $\beta = 1$  does not materially affect our results.

The minimum estimation window is set to 30 days. Equally weighted benchmark returns or alternative estimation windows produce very similar results.

Fama and French group financials (SIC codes 6000–6999) in the ‘Other’ sector subset that also includes firms in the mining, construction, construction material, transportation, hotel, business service and entertainment sectors. We also partition targets based on 12 and 17 industries according to Fama and French but do not report the results as the number of observations is particularly low for several period-sector subsets and this impacts statistical significance. It appears, however, that premiums during the sixth merger wave are still lower for 11 out of 12 cases and 14 out of 17 cases, respectively. In addition, premium differentials between the two merger wave periods remain similar in terms of both direction and significance when we exclude high-tech firms.

This requires that the expected synergy gains from acquisitions are comparable.

See, for example, Firth ([1980](#)), Asquith ([1983](#)), Jensen and Ruback ([1983](#)), and Travlos ([1987](#)), Andrade, Mitchell, and Stafford ([2001](#)), Fuller, Netter, and Stegemoller ([2002](#)), Moeller, Schlingemann, and Stulz ([2004](#)), and Faccio, McConnell, and Stolin ([2006](#)). In unreported results, we also establish that acquirer returns are also not statistically different between the two merger waves for deals where the target is unlisted.

The median abnormal return for the winner (loser) subset is 2.6% (−3.6%).

Premium is defined as the ratio of the offer price to the stock price of the target 4 weeks prior to the acquisition announcement. The results remain similar when using a premium measure based on target returns as in Schwert [\(2000\)](#).

We have also run the regressions using the alternative corporate control competition variables reported in [Table 1](#) or a 'liquidity index' as in Schlingemann, Stulz, and Walkling [\(2002\)](#). The sign and the significance of these variables, however, remain similar to the variable BID.

The results remain similar when we use a 5-, 11-, or 21-day CAR window.

In unreported results, we have also compared (non-)large loss deals across different methods of payment and a 21-day event horizon, and the results remain similar.

Due to the fact that the 36-month holding period could be biased by events that are affected by the financial crisis, we also performed tests using 12-month event window and the results remain similar. In addition, we exclude acquirers that are involved in more than one acquisition during the event window (for both 36-month and 12-month holding periods) and rerun the tests. The direction and significance of the results remain similar.

We do not compute CTAR differences as these involve regressing monthly return differences on the four factors. However, there are no common months between the periods compared here.

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