ANALYSIS GROUP
ECONOMIC, FINANCIAL and STRATEGY CONSULTANTS

Merger Arbitrage Update through Q2 2013

Figure A provides a summary of the general characteristics of M&A deals studied by Analysis Group's Gaurav Jetley and Xinyu Ji. The percentage of successful deals dropped in 2008 and 2009, highlighting the increased deal completion risk in those years. Since 2010 however, the deal success rate has reverted back to the pre-2008 level. Also, not surprisingly, 2008 and 2009 witnessed a strong preference for cash-only considerations, given the overall poor performance of stocks.

Figure A. Summary of M&A Deals 1990 - 2013

Year	Number of Deals In Sample	Percentage of Successful Deals	Percentage of Cash-Only Deals	Average Duration in Days - Successful Deals	Average Duration in Days - Failed Deals	Target's Average Market Cap Prior to M&A Announcement (in millions)	Acquiror's Average Market Cap Prior to M&A Announcement (in millions)
1990	41	85%	100%	167	149	$137	$2,988
1991	10	80%	90%	137	274	$74	$2,556
1992	50	82%	28%	208	71	$95	$1,640
1993	78	96%	45%	175	161	$190	$2,044
1994	108	86%	47%	159	75	$304	$2,677
1995	162	90%	43%	145	121	$560	$2,892
1996	111	91%	44%	128	95	$328	$4,371
1997	193	95%	33%	133	67	$534	$4,739
1998	216	93%	37%	135	118	$723	$8,056
1999	260	88%	50%	127	111	$736	$21,400
2000	220	93%	46%	105	99	$800	$20,304
2001	135	95%	47%	121	92	$431	$16,240
2002	74	93%	59%	115	133	$1,085	$12,445
2003	100	93%	51%	126	84	$577	$15,170
2004	106	92%	50%	135	188	$1,650	$10,633
2005	98	96%	63%	114	166	$1,735	$28,407
2006	117	98%	79%	120	167	$1,409	$23,005
2007	103	94%	72%	101	136	$1,764	$26,558
2008	123	72%	95%	97	104	$1,502	$26,601
2009	76	89%	91%	111	79	$411	$31,648
2010	131	94%	86%	103	48	$731	$23,001
2011	109	92%	83%	109	106	$1,843	$13,977
2012	102	92%	88%	107	177	$686	$35,056
2013 (6 months)	47	94%	79%	116	121	$1,450	$25,950

Figure B shows, on a year-to year-basis, the median arbitrage spread measured on the first trading day after a deal announcement. The spread had a temporary spike in 2008 and 2009, caused mainly by two factors. First, as shown in Figure A, the deal failure risk increased during the financial crisis. Second, trading in targets' stocks declined in those years (see Figure C), possibly due to an overall flight from the stock market in the financial crisis. However, the overall declining trend of the arbitrage spread documented in the authors' original study has resumed since 2010. Notably, the spread in 2012 and 2013 went well below 1%.

Figure B
Median Arbitrage Spread for M&A Deals 1990 - 2013
Measured One Trading Day After Merger Announcement

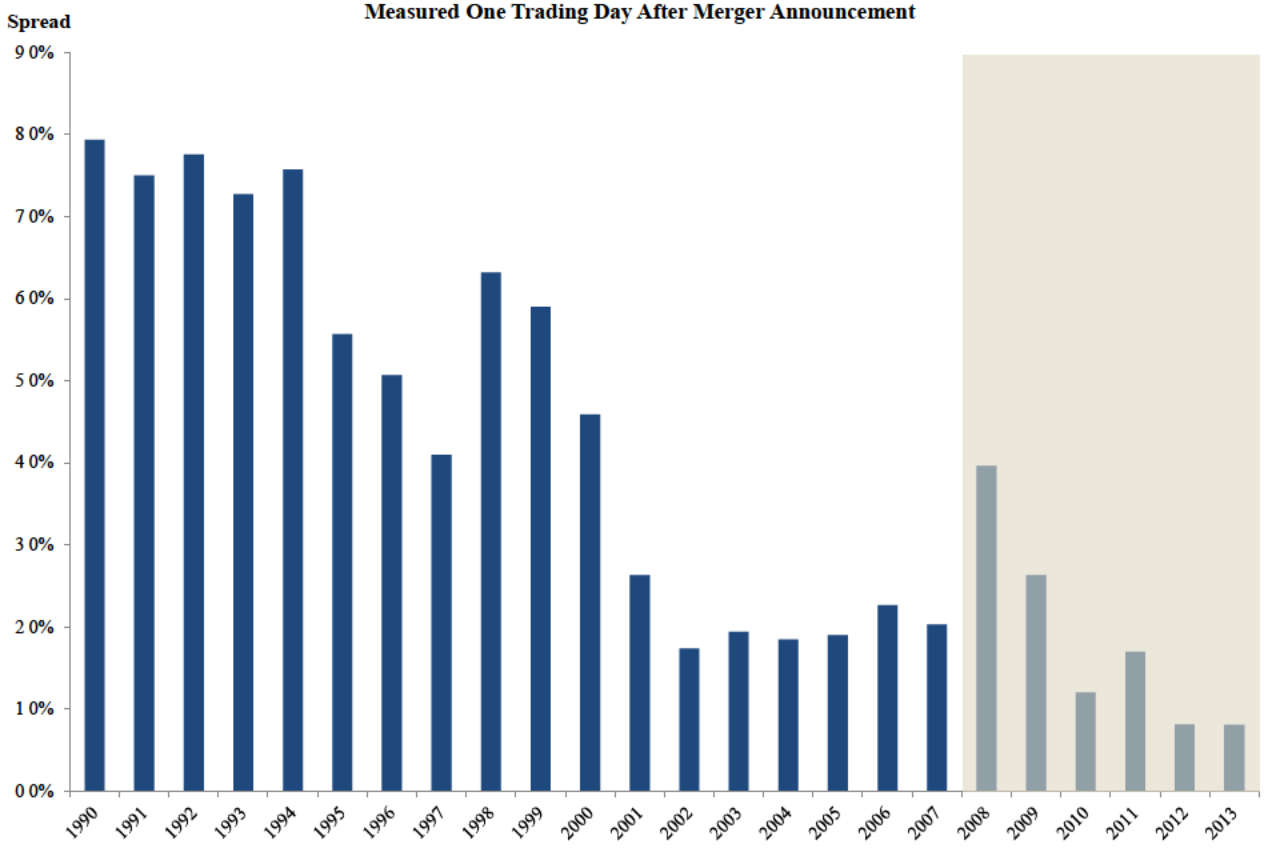
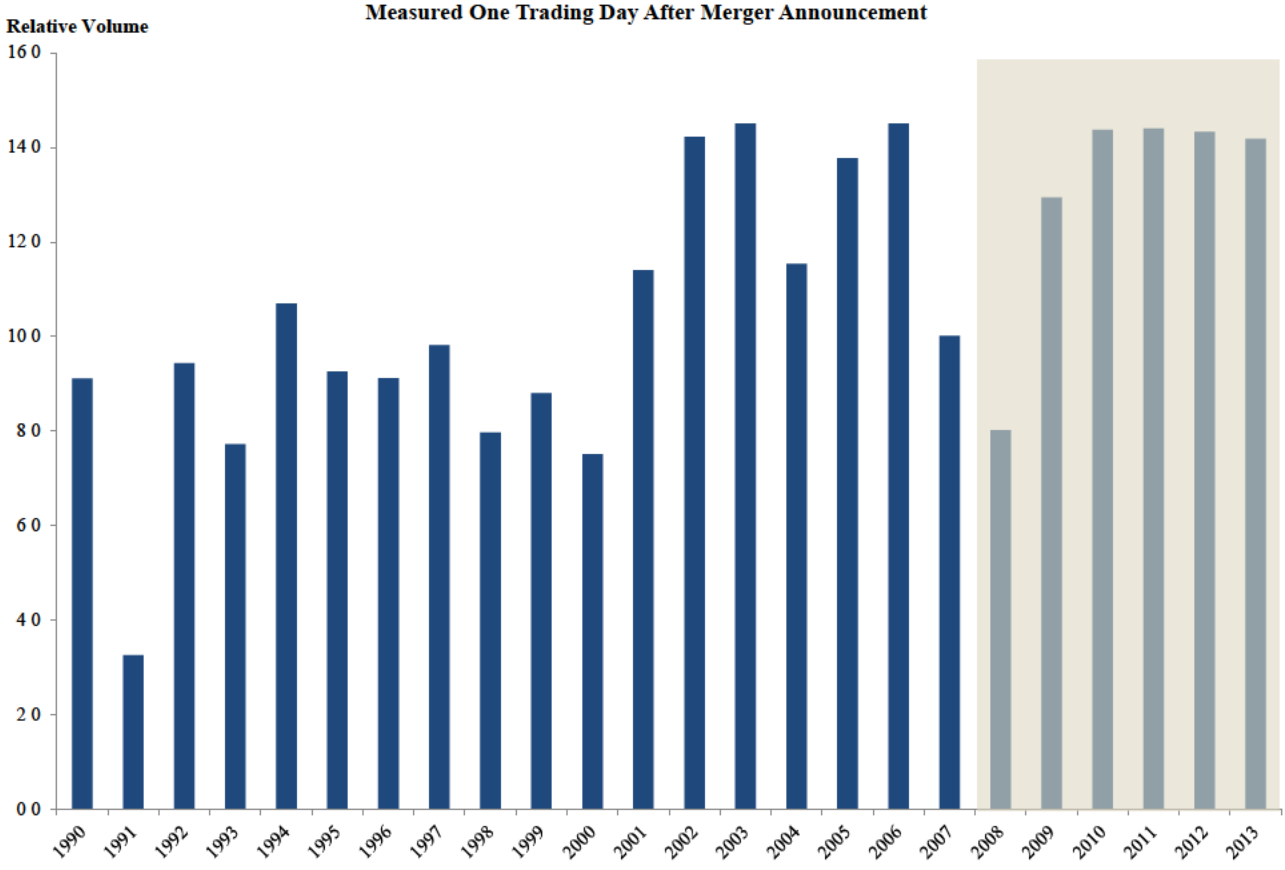


Figure C reports the median relative trading volumes in targets' stocks measured on the first trading day after a deal announcement. It shows that after a temporary drop in relative volume in 2008 and 2009, trading in targets' stocks has increased again in recent years, reaching the pre-financial-crisis level.

Will the merger arbitrage spread continue to shrink from the current level? The authors think the answer is probably no, and believe that the narrowing of the arbitrage spread in recent years is partially driven by historically low interest rates. With the rise in interest rates sometime in the future, a typical merger arbitrage spread upon a deal announcement will likely go back to the ~2% level.

Figure C
Median Relative Trading Volume for M&A Deals 1990 - 2013
Measured One Trading Day After Merger Announcement



Notes and Sources:

1. All 2013 values represent deals announced in the first half of 2013
2. Deals must meet the following criteria to be included in the sample:
    a. Transactions in which the acquirer gains a majority control of the target company
    b. Transactions involving U.S. companies
    c. Transactions involving a publicly traded target
    d. Transactions with consideration that is all-cash, all-stock, or a combination of the two
    e. Transactions that did not have competing bids
    f. Transactions with the necessary deal and stock information available
3. Merger arbitrage spread is defined as:
    a. Cash Consideration : $S_{cash,t} = (P_{offer} - P_{target,t}) / P_{target,t}$
    b. Stock Consideration : $S_{stock,t} = ((P_{acquiror,t})(\text{Exchange Ratio}) - P_{target,t}) / P_{target,t}$
4. Relative trading volume is defined as the target company stock's trading volume on the day after the deal announcement divided by the target stock's normal trading volume. The normal trading volume is defined as the average trading volume between 50 and 25 days prior to the deal announcement.
5. Thomson One Banker, CRSP