Bargaining Power in the Presence of Financial Market Constraints

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This paper examines how financial market stress affects value creation and distribution when firms merge. We measure the level of systemic financial market stress by using the St. Louis Fed Financial Stress Index (STLFSI). We find that the combined gain to shareholders (acquirer plus target) is related negatively to the STLFSI. With regard to the distribution of the gain, we find that financial market stress does not affect the relative bargaining power of the acquiring- and target-firm managers. However, acquiring-firm managers do lose bargaining power when they cite an increase in shareholder liquidity as a motivation for the merger.

INTRODUCTION

The mis-valuation theory suggests that merger waves occur because managers and investors over-estimate merger synergies. For example, Rhodes-Kropf and Viswanathan (2004) and Shleifer and Vishny (2003) argue that merger activity is related positively to stock market valuations. Eisfeldt and Rampini (2008) show that variation in capital liquidity strongly impacts the degree of total capital reallocation in the economy, and Harford (2005) suggests that merger activity is correlated negatively with changes in interest rates. However, despite the evidence that a relation exists between capital market conditions and merger activity, Mulherin, Netter and Poulsen (2017) identify relatively few studies in their literature survey that examine how financial market conditions affect 1) value creation (i.e., the combined gain earned by acquiring- and target-firm shareholders) at the merger announcement date, and 2) the merging parties' relative bargaining power (i.e., how managers distribute the combined gain).

Our study extends Bouwman, Fuller and Nain (2009), who find that acquiring-firm shareholders earn lower two-year, post-announcement buy-and-hold abnormal returns (BHARs) when managers make acquisitions during high-valuation months. Bouwman, Fuller and Nain (2009) classify the market condition as being either high or low by comparing the actual P/E ratio for the S&P 500 Index to its de-trended value. They also examine returns at the announcement date, and find that acquiring-firm shareholders earn higher three-day cumulative abnormal returns (CARs) during high-, rather than low-, valuation months (the average difference is 1.3%). The authors conclude that acquiring-firm managers make better merger decisions when the market's value is relatively low. However, overpayment does not drive their results: target-firm shareholders receive an average bid premium of 55.5% during high-valuation months and 97.4% during low-valuation months.

Our study addresses two intriguing questions. First, how does systemic financial stress affect the change in total (acquirer plus target) shareholder wealth at the merger announcement date? Financial market stress is related to, but also differs from, relative stock market valuation. Second, how does systemic and firm-specific financial stress (either acquiring firm, target firm, or both) affect the distribution of the combined gain? We measure the level of financial market conditions by using the St. Louis Fed Financial Stress Index (*STLFSI*), and we measure firm-specific stress by using the financial reasons for the merger cited by the managers in their Securities and Exchange Commission (SEC) filings.

We find that the combined change in shareholder wealth at the merger announcement date is related negatively to financial market stress. With regard to the distribution of the combined gain, we find that the bargaining power of the acquiring- and target-firm managers does not depend on financial market stress. However, acquiring-firm managers who cite an increase in shareholder liquidity as a reason for the merger do lose bargaining power.

HYPOTHESES DEVELOPMENT

Financial Market Stress and Value Creation

The finance literature identifies two primary schools of thought regarding the determinants of merger waves: mis-valuation and industry shocks. The mis-valuation theory suggests that managers and investors tend to overestimate the synergies from mergers and acquisitions (Shleifer and Vishny, 2003 and Rhodes-Kropf and Viswanathan, 2004). Consistent with the mis-valuation hypothesis, Nelson (1959) suggests that increases in merger activity are not only a phenomenon of prosperity, but also closely related to the state of the capital market. Bouwman et. al. (2009) find that there are about three times as many acquisitions during high-valuation markets as there are during low-valuation markets. Moreover, Bouwman et al. (2009) find that regardless of the payment method (cash or stock), mergers announced during high-valuation markets tend to outperform those made during low-valuation markets at the merger announcement date (based on an analysis of 3-day CARs), but the shares of the merged entity underperform over the subsequent 2-year period.

The neo-classical view suggests that merger waves occur as a result of industry restructurings driven by regulatory, technological, and economic shocks. For example, Jovanovic and Rousseau (2001) conclude that mergers are explained by changes in technology as opposed to changes in anti-trust or regulatory policy. Other relevant studies include Ahern and Harford (2014), Bena and Li (2014), Ang and Cheng (2006) and Dong, Hirshleifer, Richardson, and Teoh (2006), Shleifer and Vishny (2003), Mitchell and Mulherin (1996), and Rhodes-Kropf, Robinson and Viswanathan (2005).

Harford (2005) combines the two views. He finds that economic, regulatory, and technological shocks can drive industry merger waves, but he also concludes that capital market conditions play a role. Whether a particular shock leads to a merger wave depends on capital liquidity. He suggests that high capital market liquidity and low financing constraints often produce ideal conditions for industry shocks to become merger waves. The more recent theoretical model of Martos-Vila, Rhodes-Kropf, and Harford (2013) suggests that debt mis-valuation not only can increase merger activity, but also impact the relative frequencies of financial and strategic buyers.

Previous theoretical and empirical research suggests that merger activity and value creation at the merger announcement date depend on the state of the financial markets. Rather than classify stock market conditions as high or low, we measure financial market conditions by using the St. Louis Fed Financial Stress Index. Thus,

> *H1 (Value creation hypothesis): The change in acquiring- and target-firm shareholder wealth (i.e., the combined gain) at the merger announcement date should be related negatively to financial market stress.*

Financial Market Stress and Bargaining Power

A number of studies indicate that the relative value of the stock market also can impact the behavior of the merging-firms' managers. Holmstrom and Kaplan (2001) indicate that leverage and hostility were high during the 1980s, but decreased during the 1990s. Officer (2007) finds that acquisition discounts are significantly greater when debt capital is relatively more expensive to obtain. He also suggests that acquiring-firm managers often sell overpriced stock to less overpriced targets.

We test the relation between financial market conditions and the relative bargaining power of acquiring- and target-firm managers. We hypothesize that capital market constraints could increase the bargaining power of acquiring-firm managers for two related reasons. First, capital market constraints could limit the number of competing bidders by restricting the availability of funds with which to finance acquisitions. The decrease in competition (or perceived competition) from other bidders could decrease the target-firm managers' bargaining power. Second, if the target-firm managers have difficulty raising external capital due to weak financial market conditions, then they may have greater incentives to merge (which would reduce their bargaining power). Therefore,

> *H2 (Bargaining Power Hypothesis):* *The relative bargaining power of the acquiring-firm managers at the merger announcement date should be related positively to financial market stress.*

Firm-Specific Financial Stress and Bargaining Power

The Securities and Exchange Commission (SEC) merger filings (Form S-4) include a specific section for managers' deal motivations (the filings are available at www.sec.gov). We identified three financial motivations by reading the sample firms' SEC filings: the acquiring- and / or target-firm managers indicated that the reason for the merger was to 1) increase their shareholders' liquidity, 2) improve their firm's access to capital, or 3) address their firm's weak financial performance or severe financial problems. For example, when National Oilwell Inc. (NOI, the acquirer) announced its merger with IRI International Corporation (the target) on June 28, 2000, the NOI board of directors cited two financial motivations for the merger.

> Access to Capital: "The resulting stronger balance sheet and larger absolute size, increasing access to capital and financial markets, and potentially lowering future costs of equity and debt transactions."

> Increase Shareholder Liquidity: "The benefits to NOI stockholders of increasing the number of shares outstanding, thereby potentially increasing market capitalization, trading volume and institutional interest in NOI's business and securities."

Admittedly, one could argue that a desire to improve shareholder liquidity, or float, as a result of a stock transaction is not a financial motivation. However, the example for NOI suggests that access to capital could be a potential secondary benefit.

Similarly, when Avnet (the acquirer) announced its merger with Bell Micronetics (the target) on March 29, 2010, the Bell Micronetics board of directors included the following reason for the merger.

> Weak Financial Performance: ". . . the fact that we generated net losses of $18.5 million in 2005, $28.8 million in 2006, $78.7 million in 2007 and 82.5 million in 2008, and net income of $7.5 million in 2009;" and "our uncertain ability to refinance or restructure (our) indebtedness, which could have an adverse impact on our financial condition."

We test whether the financial deal motivations cited by the acquiring- and target-firm managers affect their relative bargaining power. Thus,

H3 (Financial Deal Motivations Hypothesis): *The relative bargaining power of the acquiring-firm managers should be related negatively to the financial motivations they cite in their SEC filings, and related positively to the financial motivations cited by the target-firm managers.*

DATA AND METHOD

Sample Selection

The sample contains 837 mergers involving publicly-traded, U. S. companies that were announced between January 1, 1995 and December 31, 2013 (see also Jurich and Walker, 2017). We use the *Thomson Financial Securities Data Corporations* (SDC) database to identify the sample mergers, but we exclude mergers that meet the following criteria: 1) the acquiring firm owns less than 50% of the target firm's shares at the completion date, 2) the relative transaction size (target firm's market capitalization divided by acquiring firm's market capitalization) is less than 1%, 3) the merger involves financial institutions, utilities, or communications firms, and 4) data for either firm is unavailable from the Center for Research in Security Prices (CRSP).

Although 1,832 mergers met the initial sample criteria, our final sample contains 837 mergers because we also exclude acquiring firms that announce multiple acquisitions within a two-month period, mergers that are not announced in the *Wall Street Journal*, tender offers, and mergers that do not provide SEC filings on EDGAR. We exclude tender offers because the SEC filings (e.g., Form 14-D) do not include the acquiring- and target-firm managers' reasons for the merger. We use the *Wall Street Journal* to identify the strategic objective of the acquiring-firm managers. A diversification strategy refers to mergers involving firms with different two-digit SIC codes unless the merger involves a vertical integration strategy. We use the SEC filings to identify the firm-specific financial deal motivations.

Table 1 shows the number of sample mergers by year (based on the announcement date), the mean annual value of the *STLFSI*, and the percentage of the mergers in which the acquiring- and target-firm managers cite a financial reason for the merger in their SEC filings. Our sample reflects the substantial decrease in merger activity during the Financial Crisis. Total M&A activity of U.S. domiciled firms declined from $1,510 billion in 2007 to $826.4 billion in 2008, a decrease of 45.3% (Mergermarket, 2010). As a result, the number of sample mergers declines significantly with the beginning of the financial crisis in 2008. Of the 16 sample mergers announced during 2008, 12.5% (37.5%) of the acquiring- (target-firm) managers cited access to capital as a reason for the merger.

Year	Number of Sample Mergers	STLFSI Annual Average	Acquiring-Firm Financial Motivations		Target-Firm Financial Motivations		
			Increase Access to Capital	Increase Shareholder Liquidity	Increase Access to Capital	Weak Financial Performance	Increase Shareholder Liquidity
1995	64	0.638	3.1%	6.3%	43.8%	23.4%	23.4%
1996	92	0.619	0.0	6.5	27.2	13.0	22.8
1997	85	0.562	17.6	14.1	51.8	12.9	42.4
1998	96	0.537	20.8	9.4	47.9	11.5	40.6
1999	79	0.766	24.1	11.4	49.4	8.9	39.2
2000	73	1.023	21.9	15.1	57.5	4.1	47.9
2001	44	0.794	18.2	9.1	50.0	18.2	34.1
2002	23	0.635	17.4	8.7	52.2	8.7	34.8
2003	28	0.029	28.6	7.1	57.1	21.4	25.0
2004	32	(0.495)	28.1	18.8	46.9	6.3	28.1
2005	38	(0.547)	18.4	13.2	39.5	5.3	21.1
2006	30	(0.439)	16.7	3.3	30.0	20.0	26.7
2007	26	0.038	42.3	23.1	46.2	11.5	23.1
2008	16	1.843	12.5	12.5	37.5	6.3	25.0
2009	22	1.228	36.4	13.6	59.1	4.5	27.3
2010	21	(0.491)	9.5	0.0	52.4	33.3	38.1
2011	19	(0.627)	47.4	21.1	52.6	21.1	26.3
2012	31	(1.047)	3.2	0.0	19.4	29.0	12.9
2013	18	(1.303)	11.1	11.1	33.3	27.8	33.3
Total	837	0.198	17.7%	10.5%	45.0%	13.7%	32.4%

Capital Market Cycles and the Identification of Financial Market Stress
   We measure financial market stress by using the St. Louis Fed Financial Stress Index (*STLFSI*). The *STLFSI* is a weekly index that provides a continuous measure of capital market conditions. The index reflects seven interest rate series (e.g. the Federal Funds Rate and the rates on U.S. Treasury bonds), six yield spreads (e.g., the 3-month LIBOR and the 3-month Eurodollar spread), and five other financial market indicators (e.g. the S&P 500 Financials Index and the CBOE volatility index, VIX). The Fed constructs the index so that the average value is equal to zero, which indicates typical financial market conditions. Positive values indicate greater financial market stress; negative values indicate lower stress.
   Figure 1 shows the level of the *STLFSI* during our study period. The *STLFSI* spiked during the financial crisis beginning in August 2007 and ending in November 2009. As a result, we test whether our results are driven by financial market stress in general, or the financial crisis period in particular.
   We construct three model specifications. First, we include *STLFSI* as a continuous variable. The advantage of using a continuous variable is that we use all of the available information. Second, we follow the procedure used by Bouwman et. al. (2009) to classify the level of financial market stress. There are 991 months during our study period. We sort the *STLFSI* from high to low, and then classify 40% of the months as high (*STLFSI* > 0.548), 20% as neutral (-0.200 < *STLFSI* < 0.548), and 40% as low (*STLFSI* < -0.200). The advantage of using binary variables is that we reduce the impact of outliers in the

STLFSI data. We also considered identifying the financial market conditions as high stress when *STLFSI* > 0 and low stress when *STLSFI* < 0. The advantage of using three classifications is that we provide separation between the high- and low-stress categories. Third, we use a binary variable to control for market conditions during the financial crisis. The variable *Crisis-Period* = 1 if the merger is announced between January 2008 through December 2009; and = 0 otherwise. However, none of the coefficients for *Crisis-Period* are statistically significant in our models. As a result, we conclude that our results apply to financial market stress in general and are not due solely to the financial crisis. We do not report the latter results in the paper.

FIGURE 1
ST. LOUIS FED FINANCIAL STRESS INDEX
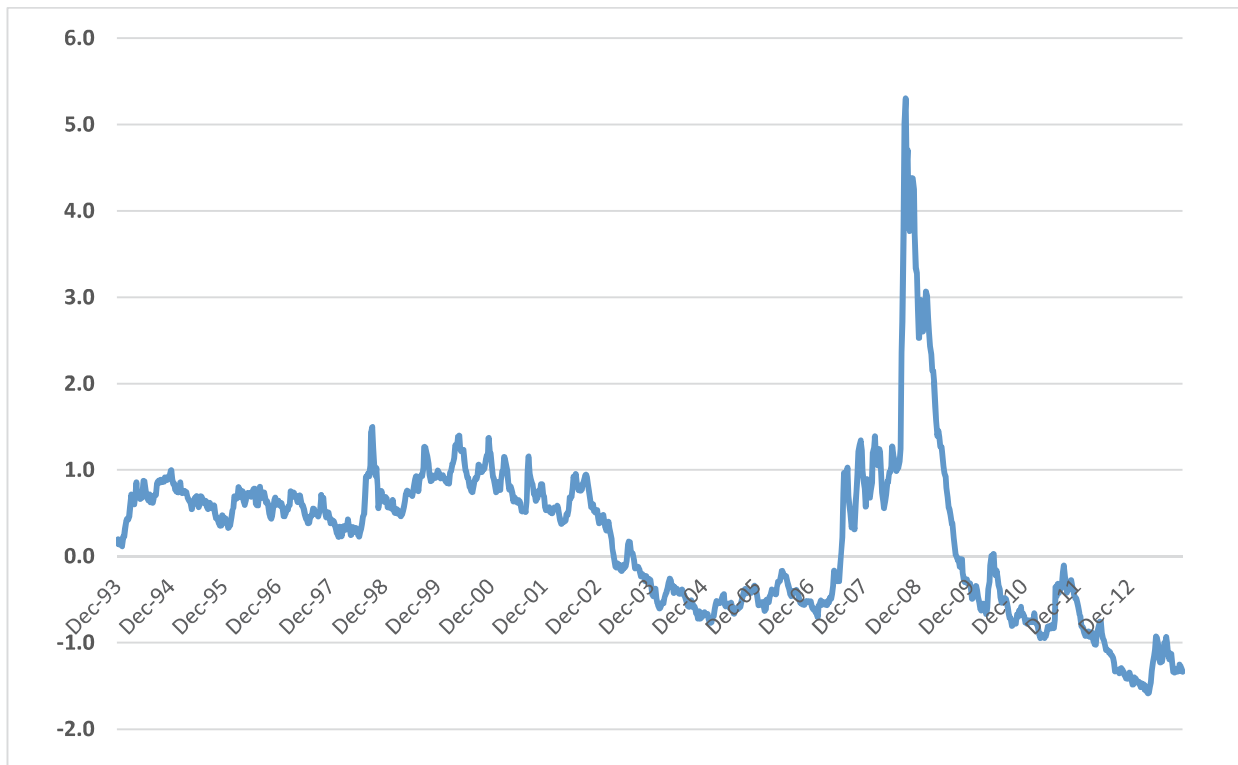
Previous studies have used different methods for defining the financial crisis period. The National Bureau of Economic Research (NBER) considers December 2007 to be the *peak* period prior to the structural break in the economic cycle. The *trough* of the cycle occurred eighteen months later in June 2009. Gurtler, Hibbeln, and Winkelvos (2014) use the 4th quarter of 2008 to examine the impact of the financial crisis on catastrophe bonds. Friewald, Jankowitsch, and Subra (2012), who analyze the subprime crisis, utilize dummy variables to identify liquidity constraints during the Financial Crisis. Ivashina and Scharfstein (2010) find that there was a 79% decrease of new loans to large borrowers from the credit boom in the 2nd quarter of 2007 to the 4th quarter of 2008.

Measuring Wealth Creation and Bargaining Power

Consistent with Jurich and Walker (2017), we measure the combined gain for each merger by calculating the change in acquirer- and target-firm shareholder wealth. The combined dollar gain ($Gain_i$) is the sum of the abnormal dollar change for the acquiring-firm shareholders ($\Delta\ MAV_i^A$) and target-firm shareholders ($\Delta\ MAV_i^T$).

$$Gain_i = \Delta MAV_i^A + \Delta MAV_i^T \quad , \text{where} \tag{1}$$

ΔMAV_i^A = the market-adjusted change in the acquiring-firm's market value of equity over the period t=-5 days to t=+5 days. In Equation (2) below, day t=0 refers to the announcement date reported in the SDC database for the successful acquiring firm.

$$\Delta MAV_i^A = \left[\prod_{-5\ days}^{+5\ days}(1 + R_{it}) - \prod_{-5\ days}^{+5\ days}(1 + R_{mt}) \right] \quad (P_{it=-6})(NS_{it=-6}) \tag{2}$$

$P_{i,t=-6}$ = the common stock price of acquiring firm i on day t =-6;

R_{it} = the return for acquiring-firm i on day t;

R_{mt} = the return on the CRSP value-weighted index (NYSE/AMEX/Nasdaq with dividends) on day t;

$NS_{it=-6}$ = the number of common shares outstanding for firm i on day t = -6;

ΔMAV_i^T = the market-adjusted change in the target-firm's market value of equity over the period t = -25 days to t = +5 days (Equation (3)). Day t = 0 refers to the first date that the target firm receives a merger bid (not necessarily by the successful acquiring firm).

$$\Delta MAV_i^T = \left[\prod_{-25\ days}^{+5\ days}(1 + R_{it}) - \prod_{-25\ days}^{+5\ days}(1 + R_{mt}) \right] \quad (P_{it=-26})(NS_{it=-26}) \tag{3}$$

The percentage gain ($Gain_i\%$) for each merger is calculated as the combined ($Gain_i$) divided by the combined pre-merger market value of equity. In Equation (4) the variables $(MV_{eq})^A$ and $(MV_{eq})^T$ refer to the pre-merger market values of equity for the acquiring and target firms, respectively.

$$Gain\%_i = Gain_i / [(MV_{eq})^A + (MV_{eq})^T] \tag{4}$$

We use the model in Equation (5) to test the determinants of $Gain\%$ (Hypothesis H_1). The independent variables include the natural log of firm size (the natural log of the pre-merger market value of equity), the continuous value of the *STLFSI*, and binary variables that reflect high, neutral, or low financial market stress, a diversification strategy, the presence of multiple bidders (MultiBid) and the payment method (cash or stock).

$$Gain\%_i = \alpha + \beta_0\ Diversification_i + \beta_1\ ln\ (FirmSize)_i + \beta_2\ STLFSI_i + \beta_3\ MultiBid_i + \beta_4\ Payment_i + \varepsilon_i \tag{5}$$

We classify an acquisition as *value-increasing* if $Gain\%$ is greater than 4% (Jurich and Walker, 2017). Although a 4% cutoff admittedly is subjective, the cutoff not only ensures that there is a positive combined gain to divide between the acquiring- and target-firm shareholders, but also provides a sufficient sample size to study bargaining power. We measure the relative bargaining power of the acquiring-firm managers by calculating the percentage of the total gain that accrues to acquiring-firm shareholders (*Acquirer %*) in *value-increasing* mergers.

$$Acquirer_i \% = (\Delta MAV_i^A \ / \ Gain_i) \ x \ 100 \tag{6}$$

We test the bargaining power hypotheses (H_2 and H_3) by analyzing the subsample of *value-increasing* mergers. We construct a multivariate model in which the dependent variable is equal to *Acquirer%*. In addition to the independent variables identified in Equation (5), we include firm-specific deal motivations.

$$Acquirer\%_i = \alpha + \beta_0\ (Financial\ Motivations)_i + \beta_1\ Diversification_i + \beta_2\ ln(Firm\ Size_i) + \beta_3\ STLFSI_i + $$
$$\beta_4\ MultiBid_i + \beta_5\ Payment_i + \varepsilon_i \tag{7}$$

RESULTS

Table 2 shows the mean *Gain%* classified by financial market conditions. The average *Gain%* is 2.03% for the 432 mergers that were announced during months of high financial market stress (*STLFSI* > 0.548) and 4.00% for the 199 mergers announced during months of low stress (*STLFSI* < -0.200). The mean difference is -1.97%, which is significant at the 10% level.

Table 2 also reports the mean values of *Acquirer%* classified by financial market conditions. The average *Acquirer%* is 42.58% for the 185 value-increasing mergers that were announced during months of high financial market stress and 25.47% for the 86 mergers announced during periods of low stress. The average difference is 17.11%, which is significant at the 5% level. The univariate results indicate that acquiring-firm managers have greater bargaining power during periods of high financial market stress.

TABLE 2
FINANCIAL MARKET STRESS, VALUATION CREATION AND BARGAINING POWER: UNIVARIATE ANALYSIS

	Total		Financial Market Stress		High Stress Greater / (Less)	
	Sample	High	Neutral	Low	Than Low	t-stat
Number of mergers	837	432	206	199		
Gain% - Mean	2.48%	2.03%	1.96%	4.00%	– 1.97%	– 1.93*
- Median	2.10	1.39	1.56	3.13		
Ln(Acquirer size) ($ mil)						
Mean	14.27	14.20	13.67	15.05	– 0.86	– 5.32***
Median	14.27	14.27	13.70	14.77		
Ln(Target size) ($ mil)						
Mean	12.44	12.31	11.94	13.24	– 0.93	– 6.62***
Median	12.37	12.30	11.82	13.24		
Value-Increasing Mergers						
Number of mergers	353	185	82	86		
Gain% - Mean	13.70%	14.66%	13.06%	12.25%	2.41%	1.93*
- Median	10.73	11.22	11.97	9.37		
Acquirer% - Mean	38.47%	42.58%	42.82%	25.47%	17.11%	2.16**
- Median	43.17	54.87	42.27	34.63		

Table 3 shows the results for *Gain%* classified by the financial deal motivations cited by the acquiring- and target-firm managers. For example, 148 acquiring-firm managers cited access to capital as a deal motivation. The average *Gain%* was 4.09% when the acquiring-firm managers cited this motivation and 2.14% when the motivation was not cited. The average difference is 1.95%, but the result is not statistically significant. In fact, none of the univariate results in Table 4 show a relation between value creation and firm-specific deal motivations.

TABLE 3
FIRM-SPECIFIC FINANCIAL MOTIVATIONS AND VALUE CREATION: UNIVARIATE ANALYSIS

	Motivation Cited		Motivation Not Cited		Gain% Cited Greater / (Less) Than	
	N	Gain%	N	Gain%	Not Cited	t-stat
Panel A. Acquiring-Firm Financial Deal Motivations						
Access to Capital	148	4.09%	689	2.14%	1.95%	1.44
Increase Liquidity	88	1.12	749	2.64	– 1.52	– 1.00
Panel B. Target-Firm Financial Deal Motivations						
Access to Capital	377	2.90%	460	2.13%	0.77%	0.85
Weak Financial Performance	115	3.39%	722	2.34%	1.05%	1.09
Increase Liquidity	271	2.13%	566	2.65%	– 0.52%	– 0.54

Table 4 shows the impact of citing financial deal motivations on relative bargaining power. For example, there are 353 value-increasing mergers in our sample. The acquiring-firm managers cited access to capital as a deal motivation in 73 of these mergers. The average *Acquirer%* was 19.41% when managers cited access to capital, and 43.44% when they did not. The average difference is -24.03%, which is significant at the 1% level. Similarly, acquiring-firm managers lost bargaining power when they cited an increase in shareholder liquidity as a reason for the merger, but gained bargaining power when the target-firm managers cited the weak financial performance of their firm as a motivation.

TABLE 4
FIRM-SPECIFIC FINANCIAL MOTIVATIONS AND BARGAINING POWER: UNIVARIATE ANALYSIS

	Motivation Cited		Motivation Not Cited		Acquirer% Cited Greater / (Less) Than	
	N	Acquirer%	N	Acquirer%	Not Cited	t-stat
Panel A. Acquiring-Firm Financial Deal Motivations						
Access to Capital	73	19.41%	280	43.44%	– 24.03%	– 3.27***
Increase Liquidity	36	8.22	317	41.90	– 33.68	– 3.00***
Panel B. Target-Firm Financial Deal Motivations						
Access to Capital	164	36.74%	189	39.97%	– 3.22%	– 0.85
Weak Financial Performance	49	51.00%	304	36.45%	14.55%	1.74**
Increase Liquidity	108	38.60%	245	38.41%	0.19%	0.03

Table 5 reports the determinants of *Gain%*. We find three key results. First, *Gain%* is related negatively to the acquiring-firm's pre-merger, market capitalization. Second, *Gain%* is related negatively to financial market stress. The latter result holds for both model specifications: when 1) *STLFSI* is a continuous variable (Models 1 and 2), and 2) we use binary variables to control for high, neutral and low financial market stress (Models 3 and 4). Third, the coefficient for *STLFSI* becomes insignificant when we control for the method of payment. Overall, the results indicate that the combined gain at the merger announcement date is lower for larger acquiring firms and when financial market stress is high (which supports H1). However, controlling for the method of payment captures the information contained in *STLFSI*.

TABLE 5
DETERMINANTS OF VALUE CREATION

	[1]	[2]	[3]	[4]
Constant	9.18%	11.92%	11.10%	12.67%
	$(2.53)^{**}$	$(3.15)^{***}$	$(2.79)^{***}$	$(3.06)^{***}$
Diversification	0.23	0.02	0.20	− 0.04
	(0.21)	(0.02)	(0.18)	(− 0.03)
Ln (Acquirer size)	− 0.95	− 1.02	− 0.96	− 1.05
	$(− 2.76)^{***}$	$(− 2.87)^{***}$	$(− 2.76)^{***}$	$(− 2.93)^{***}$
Ln (Target size)	0.60	0.52	0.55	0.51
	(1.59)	(1.35)	(1.45)	(1.31)
STLFSI	− 1.78	− 1.05		
	$(− 2.61)^{***}$	(− 1.23)		
High STLFSI			− 2.32	− 0.67
			$(− 1.99)^{**}$	(− 0.43)
Neutral STLFSI			− 2.72	− 1.32
			$(− 2.00)^{**}$	(− 0.80)
MultiBid		0.80		1.13
		(0.58)		(0.77)
Cash Payment		0.37		0.70
		(0.22)		(0.42)
Stock Payment		− 2.29		− 2.34
		$(− 2.18)^{**}$		$(− 2.22)^{**}$
Number of Mergers	837	837	837	837
R-Squared	1.62%	2.44%	1.40%	2.34%
Adjusted R-Squared	1.15%	1.61%	0.80%	1.40%
F-statistic	3.42^{***}	2.96^{***}	2.36^{**}	2.48^{**}

The results in Table 6 indicate that the primary determinants of *Acquirer%* are the sizes of the acquiring and target firms. Acquiring-firm managers capture a smaller percentage of the combined gain when they merge with relatively large target firms. However, none of the coefficients for *STLFSI* are statistically significant. Hence, our results do not support H2.

TABLE 6
DETERMINANTS OF BARGAINING POWER

	[5]	[6]	[7]	[8]
Constant	31.84%	31.07%	20.35%	21.11%
	(1.57)	(1.45)	(0.94)	(0.92)
Ln (Acquirer size)	21.40	21.87	21.29	21.66
	(9.08)***	(9.13)***	(9.03)***	(9.02)***
Ln (Target size)	− 23.48	− 23.64	− 22.93	− 23.31
	(− 10.04)***	(− 9.86)***	(− 9.75)***	(− 9.68)***
STLFSI	− 0.89	− 3.47		
	(− 0.24)	(− 0.80)		
High STLFSI			6.28	6.09
			(0.95)	(0.73)
Neutral STLFSI			10.52	10.91
			(1.35)	(1.20)
MultiBid		− 4.51		2.60
		(− 0.58)		(0.31)
Cash Payment		− 9.54		− 7.83
		(− 1.08)		(− 0.88)
Stock Payment		− 1.34		− 1.39
		(− 0.22)		(− 0.23)
Number of Mergers	353	353	353	353
R-Squared	23.20%	23.59%	23.60%	23.78%
Adjusted R-Squared	22.54%	22.27%	22.72%	22.23%
F-statistic	35.14***	17.81***	26.87***	15.38***

Finally, our results provide some support for H3, which examines the relation between bargaining power and firm-specific financial stress. When the acquiring-firm managers cite an increase in shareholder liquidity as a reason for the merger in their SEC filings, acquiring-firm shareholders capture a smaller percentage of the combined gain (see Table 7).

CONCLUSIONS

Our study examines how financial market and firm-specific financial stress affect value creation and distribution at the merger announcement date. We use two approaches to control for financial market stress: 1) a continuous approach using the St. Louis Fed Financial Stress Index (*STLFSI*), and 2) a binary approach that classifies the *STLFSI* as periods of high, neutral, or low stress.

We find evidence that the combined gain (acquiring- plus target-firm shareholder wealth) does vary with systemic capital market conditions. When financial market stress is high, we find that the combined gain is lower than during periods of low stress. With regards to relative bargaining power, we do not find a significant relation between the percentage of the combined gain captured by acquiring-firm shareholders and financial market stress. However, we do find evidence that acquiring-firm managers lose bargaining power when they cite an increase in shareholder liquidity as a reason for the merger.

TABLE 7
FIRM-SPECTIFIC FINANCIAL MOTIVATIONS AND BARGAINING POWER

	[9]	[10]	[11]	[12]
Constant	34.12%	31.07%	22.68%	22.62%
	(1.63)	(1.43)	(1.02)	(0.96)
Ln (Acquirer size)	20.59	21.20	20.52	21.00
	(8.34)***	(8.48)***	(8.31)***	(8.39)***
Ln (Target size)	− 22.64	− 22.76	− 22.14	− 22.50
	(− 9.08)***	(− 8.95)***	(− 8.86)***	(− 8.82)***
STLFSI	0.16	− 2.65		
	(0.04)	(− 0.61)		
High STLFSI			7.89	6.67
			(1.18)	(0.80)
Neutral STLFSI			10.42	9.90
			(1.34)	(1.08)
Access to Capital^A	2.68	2.26	3.22	2.88
	(0.34)	(0.29)	(0.41)	(0.37)
Stock Liquidity^A	− 18.20	− 17.78	− 18.18	− 18.39
	(− 1.78)*	(− 1.73)*	(− 1.78)*	(− 1.78)*
Access to Capital^T	− 2.93	− 4.58	− 3.72	− 4.51
	(− 0.52)	(− 0.79)	(− 0.66)	(− 0.78)
Stock Liquidity^T	− 0.20	− 0.85	− 0.37	− 0.93
	(− 0.03)	(− 0.14)	(− 0.06)	(− 0.15)
Financial Problems^T	6.05	8.80	6.35	8.28
	(0.78)	(1.11)	(0.82)	(1.03)
MultiBid		− 4.00		2.55
		(− 0.51)		(0.30)
Cash Payment		− 13.22		− 11.42
		(− 1.45)		(− 1.25)
Stock Payment		− 0.28		− 0.33
		(− 0.05)		(− 0.05)
Number of Mergers	353	353	353	353
R-Squared	24.30%	24.95%	24.75%	25.12%
Adjusted R-Squared	22.54%	22.52%	22.77%	22.48%
F-statistic	13.81***	10.30***	12.53***	9.51***

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