

Getting It All—for Less: An In-Depth Study of Remaining Stake Acquisitions

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In a previous analysis of remaining stake acquisitions (see "Wanting It All: Issues When You Already Have Control," Business Valuation Review, July 2007, p. 38), the authors analyzed 67 remaining stake acquisitions; those acquisitions indicated a range of stock premiums of 30% to 45%. To build upon that work, the authors expand their scope and evaluate a larger sample of 257 transactions in order to retest the previously indicated premium range. In addition, they analyze relative returns (the premium or discount of the remaining stake acquisition relative to its peer acquisitions) and hypothesize on and test the key drivers of those relative returns.

Introduction

When faced with valuing a remaining stake, whether in the context of evaluating or developing a sale price for a proposed transaction or whether determining the value for other reasons, should a valuation analyst assume a controlling entity would pay a premium or a discount for the remaining stake? This question was first posited in our previous article (see "Wanting It All: Issues When You Already Have Control," *Business Valuation Review*, July 2007, p. 38), where we defined remaining stake acquisitions as those acquisitions in which the controlling buyer, already owning over 50% of the target entity, purchased all remaining shares of the target entity. Limited research has been done in the business valuation field related to these remaining stake acquisitions even though this is an issue frequently faced by many corporations today.

We conducted a limited empirical study of U.S. remaining stake acquisitions in our first article. In that study we gathered transaction data of domestic targets from January 2001 through September 2005 from FactSet Mergerstat's Mergers & Acquisitions database. Sixty-seven observations were available during that time period, and we noted that a premium (relative to the target's stock price) of 30.0% to 45.0% was supported by those remaining stake acquisitions.

In this analysis we expand upon our previous work in many ways. First, we use a larger sample to test

the premium results from our first study (we increased our historical data set by 11 years) as well as to gain additional understanding as to what factors may drive any premium (we refer to these premiums as the *absolute* premium in this article). We also compared performance metrics of each remaining stake acquisition¹ to the average of the targets' industry for any individual year (we refer to these resulting comparisons as the *relative* premium or discount in this article).² Last, we attempted to identify factors that influenced those relative premiums or discounts through multiple linear regression analyses.

Empirical Study

We first pondered the question of a discount or premium on a remaining stake interest during a client engagement. Our client, a publicly traded, biotech firm, owned 80% of another publicly traded company, and, for a variety of reasons, our client wanted to purchase the remaining 20%. The firm engaged us to advise it on pricing this remaining stake. In that context we conducted an empirical study of U.S. acquisitions where the controlling buyer, already owning over 50% of the target entity, purchased all remaining shares, the results of which led to our first article. This study expands on that work.

We sought three goals in this study: (1) to increase our understanding of and to increase the business valuation-specific body of knowledge related to the nature of absolute premiums or discounts paid for such remaining stake acquisitions; (2) to gain an understanding of the relative premiums or discounts paid for the targets relative to their industry peers; and (3) to gain insight into factors that might dictate those relative premiums or discounts and, thus, provide guidance for practitioners who may be analyzing or preparing terms for remaining stake acquisitions.

We gathered transaction data of domestic targets from FactSet Mergerstat's Mergers & Acquisitions database.³

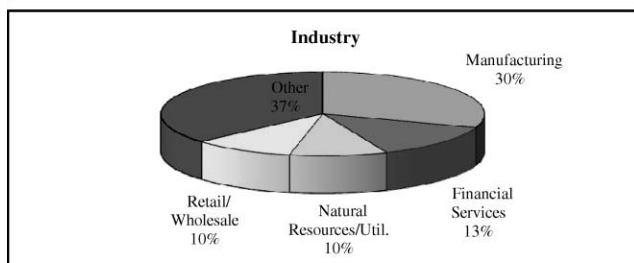
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Table 1
Descriptive Information of Sample

Timeframe of Remaining Stake Acquisitions	1/1992 - 1/2007
Total Transactions	257
Total Transactions That Include 5-Day Premium	227
Total Transactions That Include 30-Day Premium	227



	# of Deals	% of Total
Percentage Sought (X%)		
X% < 10%	9	3.5%
10% ≤ X% < 20%	69	26.8%
20% ≤ X% < 30%	51	19.8%
30% ≤ X% < 40%	72	28.0%
40% ≤ X% < 50%	56	21.8%
Deal Size (\$X)		
\$X < \$5 Million	41	16.9%
\$5 Million ≤ \$X < \$25 Million	58	24.0%
\$25 Million ≤ \$X < \$50 Million	72	29.8%
\$50 Million ≤ \$X < \$250 Million	33	13.6%
\$250 Million ≤ \$X < \$1 Billion	25	10.3%
\$1 Billion ≤ \$X	13	5.4%
Target Revenue (\$Rev)		
\$Rev < \$25 Million	69	26.8%
\$25 Million ≤ \$Rev < \$100 Million	56	21.8%
\$100 Million ≤ \$Rev < \$250 Million	47	18.3%
\$250 Million ≤ \$Rev < \$500 Million	35	13.6%
\$500 Million ≤ \$Rev	50	19.5%

The data⁴ included transactions from 1992 (the earliest available year) through 2006 and consisted of 262 observations.⁵ After excluding outliers,⁶ 257 transactions were analyzed. As shown in Table 1, our sample included a wide breadth of transaction types as measured by percentage sought, deal size, industry, and target revenue.

There was significant variety in the characteristics of the transactions analyzed, as can be noted in Table 2. An analysis of the absolute five- and thirty-day stock premiums resulted in average premiums of 37.7% and 37.9% and median premiums of 28.6% and 30.7%, respectively. Figure 1 shows the distribution of the absolute premiums observed. These results are very similar to the average and median premiums from our previous analysis, lending support to our belief that an absolute premium ranging from 25% to 40% may be warranted for remaining stake situations.⁷

At first glance, absolute stock premiums of 25% to 40% for remaining stake acquisitions seem reasonable. Yet valuation practitioners and those contemplating an acquisition would be remiss if industry and market

circumstances were ignored. As a result, we compared each remaining stake stock premium to the average of its respective industry's nonremaining stake stock premiums in that year. We also compared each of the remaining stake multiples to the average of its respective industry's nonremaining stake multiples in that year. For this we obtained from FactSet Mergerstat's database average measures of the five- and thirty-day stock premiums and multiples by industry by year from 1992 through the first quarter of 2007, the number of acquisitions by industry by year, and the multiples for each remaining stake acquisition.⁸

To obtain valid comparisons of the remaining stake acquisitions to nonremaining stake acquisitions, we first had to adjust the yearly industry average measures to remove any influence of the included remaining stake acquisitions. For example, three of the 86 acquisitions that occurred in the financial services industry in 1995 were remaining stake acquisitions; therefore, we removed the impact of all three of those remaining stake acquisitions from the 1995 average measures of the financial services industry. These adjustments provided "clean" industry average measures, which we then compared to the associated remaining stake acquisition measures. These comparisons, in turn, provided insight, unbiased by industry or economic factors, into the premium or discount paid for remaining stake acquisitions relative to their respective industry averages.

Looking at the relative five- and thirty-day stock premiums in Table 3, the data suggest that remaining stake acquisitions occur at lower premiums than nonremaining stake ones (the negative sign indicates a discount). Premiums paid for remaining stake acquisitions are roughly 15% to 36% lower than premiums paid for nonremaining stake acquisitions. As is also shown in Table 3, the relative premiums of the price-to-revenue (Price/Revenue) and the invested capital-to-revenue (IC/Revenue) multiples exhibited conflicting results between the average and median values.⁹ The disparity between the averages and medians of these relative premiums can largely be attributed to outliers considerably skewing the averages (as evidenced in the disparity between the high and low values). This is further supported by Figure 2, where 80% of the relative Price/Revenue and IC/Revenue premiums are lower than their industry's yearly average. Therefore, the median relative Price/Revenue and IC/Revenue premiums, we believe, provide a better indication of the relationship between the remaining stake and nonremaining stake acquisitions than the average premiums. The median relative Price/Revenue and IC/Revenue premiums are in line directionally with the relative stock premium results.

Table 2
 Characteristics of Remaining Stake Acquisitions

	% Sought	Deal Size (\$mm)	Target LTM Revenue (\$mm)	Absolute Five-Day Premium	Absolute Thirty-Day Premium
High	49.9%	12,034.2	38,823.0	610.6%	231.1%
Low	3.4%	0.1	~0	-86.6%	-85.7%
Average	29.0%	300.9	871.1	37.7%	37.9%
Median	29.8%	34.0	148.9	28.6%	30.7%
Standard Deviation	12.0%	1,180.3	3,471.3	111.5%	88.8%

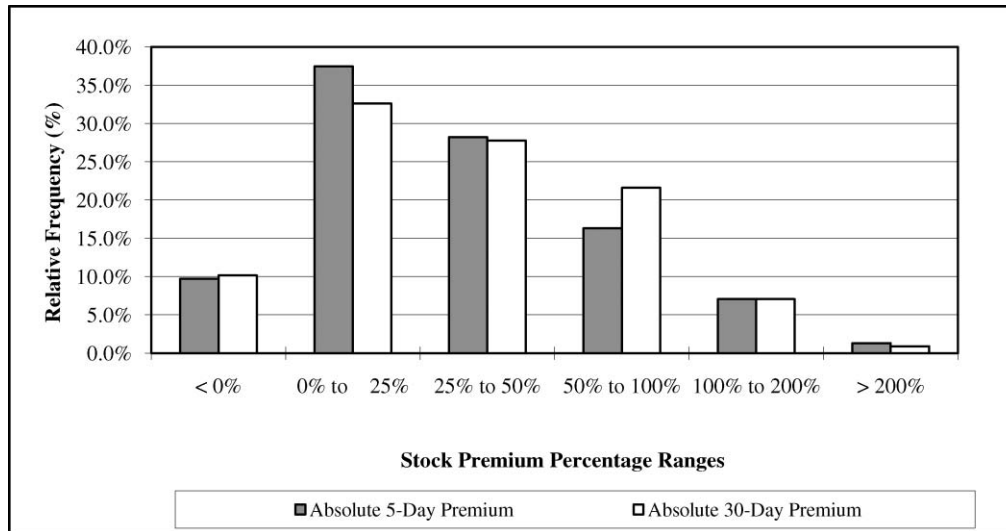


Figure 1
 Distribution of Absolute Stock Premiums

Table 3
 Characteristics of Relative Premiums in Remaining Stake Acquisitions

	Relative Five-Day Premium	Relative Thirty-Day Premium	Relative Price/Revenue Premium	Relative IC/Revenue Premium	Relative IC/EBITDA Premium
High	462.3%	333.8%	6150.6%	5,232.5%	19,391.6%
Low	-384.6%	-359.9%	-99.9%	-99.9%	-17,484.0%
Average	-15.1%	-26.0%	5.9%	3.6%	284.2%
Median	-35.5%	-36.4%	-87.5%	-83.4%	61.0%

The average of the relative invested capital-to-EBITDA (IC/EBITDA) premium exhibited a similar directional outcome to the average values of the relative Price/Revenue and IC/Revenue premiums, although it was much larger (i.e., the relative IC/EBITDA premium was similarly positive but at 284% vs. 5.9% and 3.6%, respectively). The relative IC/EBITDA premiums ranged from -17,500% to 19,400%. In an example on why such a wide range exists, a remaining stake IC/EBITDA multiple of 7.44x, when compared to its industry average

of 0.07x, produced a nonsensical relative premium of 10,200%. Of the relative IC/EBITDA premiums, 15 acquisitions were less than -500% while 26 were greater than 500%; thus, the positive outliers may have been unduly influencing the average result toward positive.

Interestingly, the median of the relative IC/EBITDA premium exhibited a different directional outcome than the median values of the relative Price/Revenue and IC/Revenue premiums (i.e., the IC/EBITDA median was positive while the revenue ones were negative). This

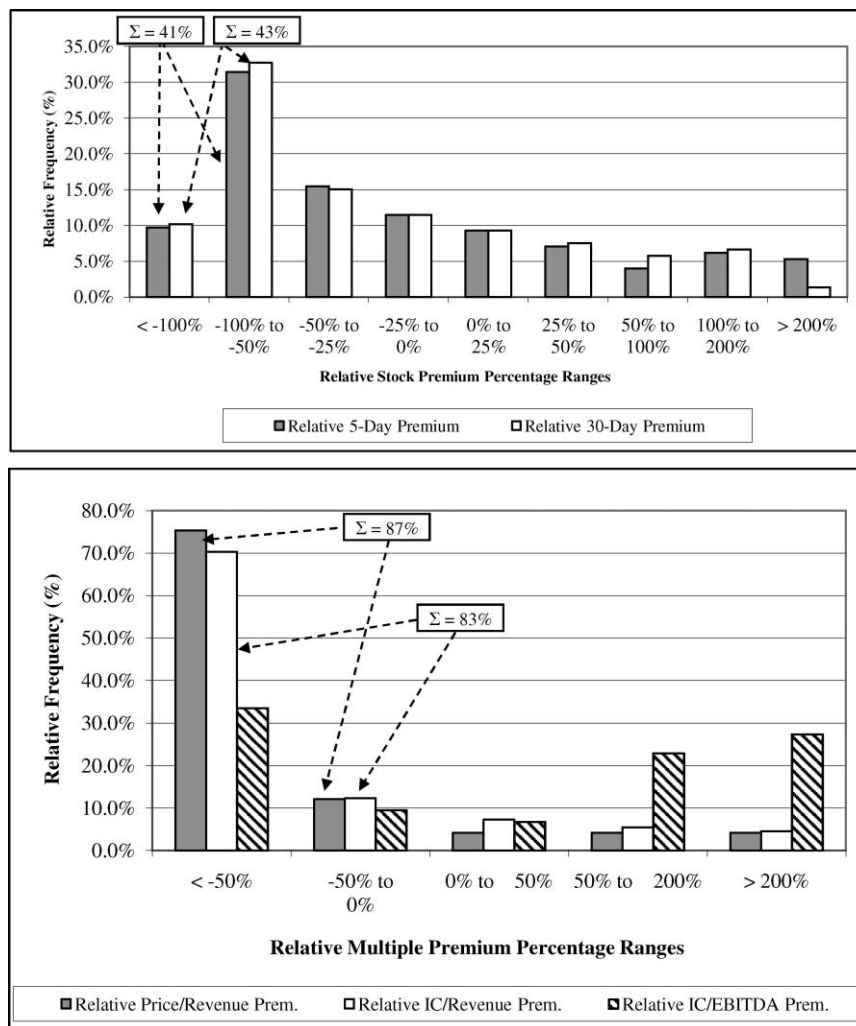


Figure 2
Distribution of Relative Premiums

directional disparity between the relative earnings and revenue premiums may be explained in a few ways. First, earnings data may not be as robust as revenue data, making the resulting earnings multiples less comparable between industry firms than revenue ones. Alternatively, the results may be explained by the importance of earnings. Managers may place a higher value on earnings when evaluating a remaining stake acquisition than other fundamentals like revenue, and, thus, they may be willing to pay a premium as measured by earnings relative to industry peer acquisitions. Additional research is warranted to clarify this directional disparity.

These findings support what we see in the market for pricing start-ups. Many start-ups, for instance, the plethora of biotechnology ones, may have few assets, zero-to-minimal revenues, and, most likely, negative earnings. Still, they may be publicly listed and even possess millions in equity capital. For various reasons, a buyer

may not want to purchase the entire target; thus, it initially buys only the amount of equity needed to retain a controlling interest. As a successful young target matures, its revenues (and assumingly its stock price) rise while its earnings may remain low because of growth costs and early-stage capital requirements. If the controlling buyer decides to buy the remaining stake and if the stock price is trading at or near its high, the remaining stake relative stock premium would be lower than that of industry peers. Similarly, with higher revenues, it would have a lower relative revenue multiple. Contrarily and as echoed in our research, the relative earnings multiples would be higher than its industry peers as a result of having zero-to-minimal earnings due to its start-up nature.

Figure 2 shows the distribution of the relative premiums.¹⁰ Note that over 40% of the relative five- and thirty-day stock premiums are less than -50% of the industry averages of the nonremaining stake premiums. Stated in

Table 4
Description of Dependent Variables

Dependent Variable	Remaining Stake Acquisition Metrics			
	Number of Observations	Average	Median	Standard Deviation
Absolute Five-Day Premium	227	37.7%	28.6%	0.57
Absolute Thirty-Day Premium	227	37.9%	30.7%	0.43
Price/Revenue Multiple	215	3.6	0.9	16.71
IC/Revenue Multiple	219	4.3	1.4	16.69
IC/EBITDA Multiple	179	1.6	6.5	164.02

Dependent Variable	Relative Remaining Stake Acquisition Premiums			
	Number of Observations	Average	Median	Standard Deviation
Relative Five-Day Premium	226	-15.1%	-35.5%	1.12
Relative Thirty-Day Premium	226	-26.0%	-36.4%	0.89
Relative Price/Revenue Premium	215	5.9%	-87.5%	5.73
Relative IC/Revenue Premium	219	3.6%	-83.4%	4.82
Relative IC/EBITDA Premium	179	284.2%	61.0%	29.00

another way, over 40% of remaining stake acquisitions exhibited stock premiums of half or less than nonremaining stake acquisitions, a surprising result. Over 70% of the relative Price/Revenue and IC/Revenue premiums are less than -50% of the industry averages (over 80% are less than the industry averages).

Table 4 suggests that remaining stake acquisitions occur at lower stock premiums and revenue multiples than nonremaining stake acquisitions. Although additional research should be conducted to verify these results, we believe that, as the median values show, remaining stake acquisitions are transacted at stock premiums roughly 36% less than nonremaining stake ones and at revenue multiples roughly 85% less than nonremaining stake ones. Indeed, the acquirer does “get it all” for less.

These results, when viewed in the remaining stake context where the buyer already owns over 50%, are not surprising. The buyer likely paid the majority of any premium for expected synergies when it purchased the initial controlling stake. Therefore, it is rational that the buyer, at a later date, would be inclined to pay a lesser amount (when compared to peer acquisitions) for the remaining portion. At the very least, these results can provide practitioners evidence for employing a discount for remaining stake versus nonremaining stake acquisitions. Care should be exercised in any analysis, and transaction-specific details will dictate the best action to take.

Armed with the knowledge that remaining stake acquisitions occur at lower stock and revenue multiple premiums than nonremaining stake ones, a natural question is “Why?” To answer this simple question, we utilized multiple linear regression analyses to determine what, if any, factors or predictors may influence the premiums.

Regression Analysis

In setting up our regression analysis for both absolute and relative premiums, we selected the following five dependent variables: five-day stock premium, thirty-day stock premium, Price/Revenue multiple, IC/Revenue multiple, and IC/EBITDA multiple. We selected a number of independent variables, or predictors, to test against each dependent variable: *year*, *industry*, *revenue*, *profit*, *percentage ownership sought*, and *acquisition purpose*.¹¹ For the relative premium measures, due to the nature of how they were calculated, we excluded year and industry as control variables. In addition, profit was excluded from the relative multiple premiums as it is a component of their calculation.

The independent predictors were tested for association with each of the dependent variables, both in bivariate settings (i.e., correlations, *t* tests, and ANOVA)¹² and multivariate settings (i.e., linear regression modeling techniques).¹³ In addition, we performed the standard tests for regression errors, including multicollinearity and heteroscedasticity, which showed no errors. All analyses were performed in SAS version 9.1 (SAS Institute, Cary, NC) with 15% significance level set in order to identify trends toward significance. Our final sample included 257 observations. As is often the case, our data were not normally distributed. Square root- and log root-transformations were difficult to interpret because of the nature of our negative data points. However, the Central Limit Theorem has shown that multiple sample means drawn from nonnormally distributed population eventually become normal; therefore, we did not believe it necessary to transform our dependent variables in any way.¹⁴ The results for the dependent variables are shown in Table 4. The bivariate results are shown in Figure 3.

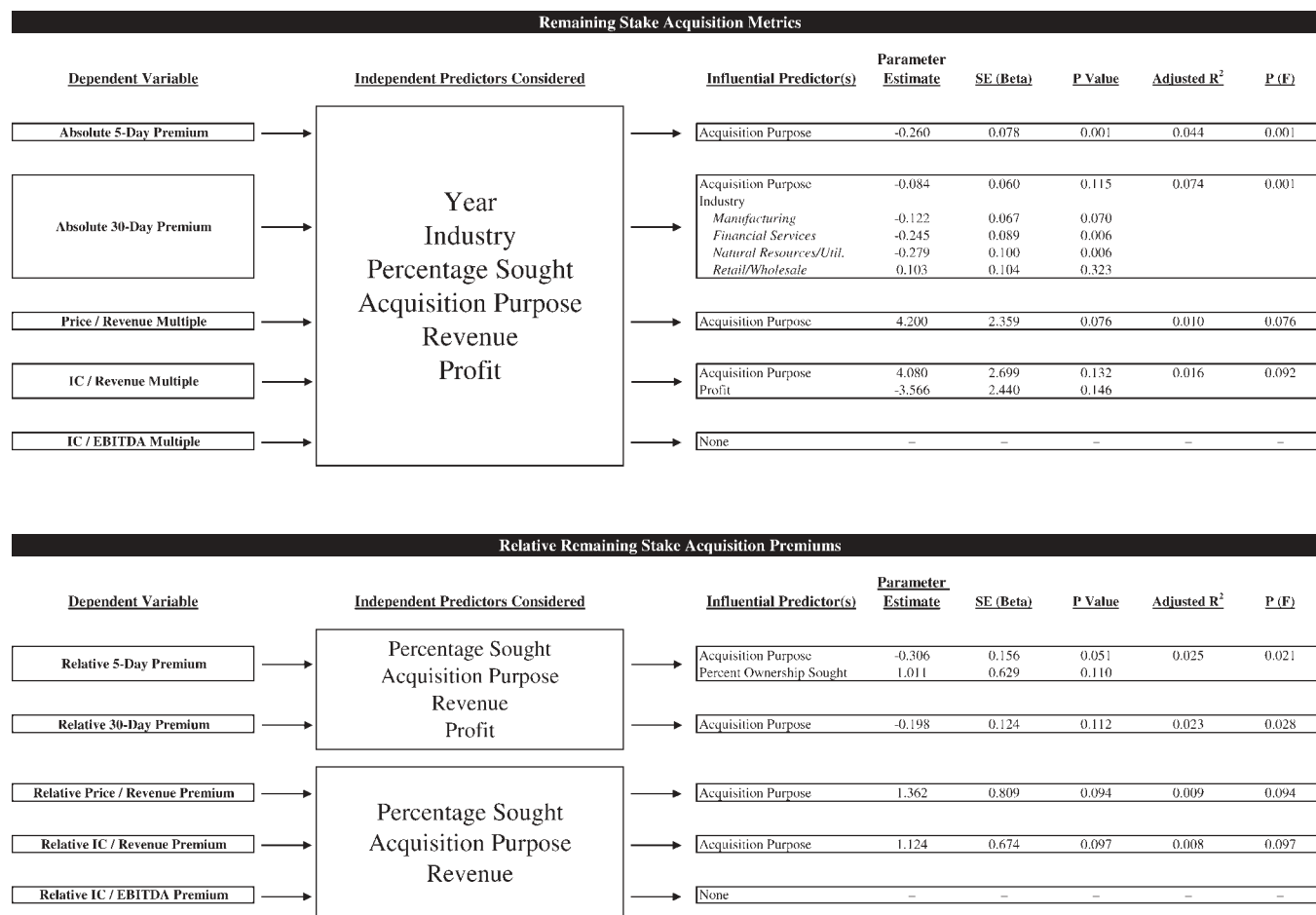


Figure 3
Regression Results

Looking at Figure 3, we were intrigued to see that most of the independent predictors (*percentage ownership sought, revenue, and profit*) had marginal or no significance. *Industry* was significant for the absolute thirty-day stock premium (with industry sectors indicating varying levels of significance), suggesting that further research into a correlation between industry and absolute stock premiums is warranted. The most compelling story, however, relates to *acquisition purpose* (i.e., whether a remaining stake acquisition was made for strategic or financial reasons). With the exception of the IC/EBITDA multiple and premium, *acquisition purpose* was significant or marginally significant across the board for dependable variables. Yet it presented an usual pattern, because the parameter estimates for *acquisition purpose* shown in Figure 3 were negative for the stock premiums and positive for the revenue multiples.¹⁵ (We gained some confidence in the data’s robustness from the five- and thirty-day stock premiums for both the absolute and relative samples showing the same parameter estimate

direction—i.e., negative—and vice versa for the revenue multiples.)

The five- and thirty-day stock premiums’ negative parameter estimates for *acquisition purpose* indicated that a strategic buyer in a remaining stake acquisition would pay a *lower* stock premium than a financial buyer. Conversely, the positive parameter estimates, as exhibited by the Price/Revenue and IC/Revenue multiples, suggested a strategic buyer would pay a *higher* multiple than a financial buyer. In essence, these intriguing results indicate that strategic buyers acquire their remaining stakes at lower stock premiums than financial buyers but that they acquire their remaining stakes at higher multiples than financial buyers. At first glance, this appears counterintuitive. Wouldn’t the buyer that tends to pay a higher stock premium also tend to pay a higher multiple?

These divergent results may be related to the motivation and perspectives of the two types of buyers. A financial buyer is likely more interested in a return based on the purchase price rather than one based on perceived

synergies, whereas the opposite is likely true for a strategic buyer. Given that perspective, a financial buyer hopes to capitalize on market fluctuations. The financial buyer, possibly more knowledgeable about the market or an industry, is willing to offer a higher stock price than a strategic buyer. If this is the case, the financial buyer would have to believe that the market is undervaluing the target stock, even if the fundamentals do not support such a conclusion. The financial buyer is speculating that perceptions in the market (i.e., the value of the remaining stake is low) are wrong, justifying a higher stock premium. On the other hand—and as supported by the Price/Revenue and IC/Revenue multiples—strategic buyers are willing to pay more when pricing a remaining stake based on fundamentals like revenue and profit. Strategic buyers are likely motivated by internally determined, synergy-driven metrics related to purchasing the remaining stakes that they believe warrant the higher price paid. The data support this: the strategic buyers tended to purchase more profitable targets.

Looking beyond any one variable, it can be deduced by our low adjusted R^2 measures that additional research is warranted. In addition, the fact that the IC/EBITDA multiple had no significant variables indicates that more research is necessary to gain insight into other factors that affect earnings. Taken as a whole, this study is a measurable step toward answering our original questions as to if and why premiums exist for remaining stake acquisitions. However, no “rule of thumb” or “one size fits all” approaches should be universally applied when handling a possible premium or discount in these circumstances. Further research may be able to point toward such an approach.

Final Thoughts

Through this expanded study of 257 transactions, we determined that remaining stake acquisitions can expect to exhibit absolute stock premiums ranging from 25% to 40%, which is in line with guidance included in FactSet Mergerstat’s *Mergerstat Review 2007* and *2008*. In addition, remaining stakes were acquired at stock discounts of roughly 15% to 36% compared to nonremaining stake acquisition industry peers. Our regression analysis, performed to identify factors that may influence acquisition pricing, produced interesting results. The factors that practitioners could typically expect to affect acquisition price, like *profit*, *revenue*, and *percentage ownership sought*, did not prove significant. However, *acquisition purpose* proved important, although its impact was dependent on the performance metric. It would be advisable for researchers to include it in future studies alongside other possible factors that may influence pricing.

At the same time, it would be worthwhile to examine acquisition negotiations and considerations between the parties involved in remaining stake acquisitions to gain insight into the “soft” side of the decision-making process.

If to serve but one purpose, this article gives additional proof for the need of practitioners to think twice before rubber stamping any discounts on a minority-percentage transaction. Instead, as is wise in most all areas of valuation and financial analysis, a deliberate and thoughtful analysis of the subject company leads to better results.

Endnotes

1. We looked at the following performance metrics: five-day stock premium, thirty-day stock premium, and three multiples (Price/Revenue, Invested Capital/Revenue, and Invested Capital/EBITDA). The metrics, defined by FactSet Mergerstat, were obtained from FactSet Mergerstat’s database. For more information, see www.bvmarketdata.com/defaulttextonly.asp?f=CPS%20Faqs, included here with permission.
2. Research has shown that different industries can expect different returns. In order to accurately reflect this, we compared the metrics of each remaining stake acquisition to the average industry metrics in its respective year. For this article we termed the resulting difference between the industry average and the remaining stake acquisition as the “relative” premium.
3. Because of limitations on available data, we were unable to establish whether the purchase prices of the data encompassed fair market value or investment value or possessed elements of both.
4. We obtained the following fields for each transaction: acquisition closing date, buyer and seller names, deal size, percentage of ownership sought, target’s industry, purpose of the acquisition (i.e., strategic or financial), stock premiums calculated by comparing the closing stock price to the stock price five and thirty business days prior to the announcement date, and the target’s last twelve-month financial measures including invested capital, revenue, and EBITDA in order to calculate multiples.
5. FactSet Mergerstat’s database includes formal transfers of ownership where at least one party is a U.S. entity and the target entity is traded on a public exchange. The last transaction closed on 3 January 2007, which we compared to the industry average for the first quarter of 2007. We acknowledge that the transactions included in our analysis likely were or could be subject to “fairness” considerations as those relate to minority share owners; therefore, the results

- determined through the use of these transactions may not be directly relatable to private company transactions.
6. Five of the transactions, when compared to their respective industry averages for the five- and thirty-day stock premiums, exhibited relative premiums greater than 1,000%. We excluded these transactions after research indicated that legal issues or extraordinary events led to their significant pricing disparities.
 7. These results are generally in line with control premiums depicted in FactSet Mergerstat's *Mergerstat Review 2007* and *2008*.
 8. The industries include agricultural production, communication and broadcasting, financial services, manufacturing, natural resources, real estate, retail, transportation, utilities, wholesale and distribution, and other services. For the regression analysis, we combined these eleven industries into the following five industry groupings: manufacturing, financial services, natural resources/utilities, retail/wholesale/distribution, and other.
 9. Because of the presence of negative values in our multiples data, we relied on arithmetic averages for the multiples.
 10. In 2006 one of the remaining stake transactions was the only transaction for that industry in that year; it was excluded. Therefore, there are only 226 relative stock premiums as opposed to 227 absolute stock premiums. The other metrics were limited by availability of data.
 11. For the dependent variable *acquisition purpose*, we classified the acquisitions as either "strategic" or "financial," as defined by FactSet Mergerstat at the time of the dataset collection. Since that time FactSet Mergerstat has expanded these definitions into four categories: *horizontal*, *vertical*, *financial*, and *conglomerate*. Additional research is encouraged to test these new categories.
 12. Pearson correlations were performed on the dependent variables using the independent predictors of *year* (excluding relative measures), *revenue*, *percent ownership sought*, and *profit* (as appropriate). Independent, two sample *t* tests were performed on the dependent variables using the independent predictor of *acquisition purpose*. ANOVA was performed on the dependent variables using the independent predictor of *industry* (excluding relative measures).
 13. Multiple linear regressions were performed using PROC REG and PROC GLM in SAS. We set the following criteria: stepwise selection using a 15% default significance level, independent regressions run for each dependent variable, and jackknife residual plots testing goodness of fit.
 14. We used CLT to meet our assumptions of normality for the correlations, *t* tests, ANOVA, and linear regressions.
 15. As earlier mentioned, the *acquisition purpose* predictor was comprised of two "states": financial or strategic. We constructed our analysis so that a strategic buyer's measure that trended higher (when compared to a financial buyer) indicated a positive parameter estimate.