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The Price Isn't Right: Event Studies In M&A Suits

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Law360, New York (December 10, 2010) -- Hostile takeover attempts almost always result in litigation, especially in the U.S. Targets may litigate to delay the takeover and buy time to find a white knight, while raiders may litigate to overcome takeover defenses.

Targets often make disclosures seeking to demonstrate that the hostile offer does not offer adequate value. For example, a target may disclose better-than-expected financial results or increase guidance subsequent to the announcement of a hostile bid to claim that the extant offer does not compensate for events subsequent to the announcement of the bid.

A target company may also claim violation of the Williams Act with respect to the raider's disclosure of its plans for the target's assets. These disputes typically concern the materiality of certain disclosures on the value of a target and, in particular, their impact on the stock price of the target in the absence of the outstanding bid.

At the core of many lawsuits related to these transactions is the issue of price: How can an appropriate share value be determined and defended?

One methodology we frequently encounter in mergers and acquisitions-related cases is the event study, a well-established tool that has long been used in the fields of finance, economics and accounting to quantify the effect of specific events and disclosures on a company's stock price. Event studies draw on the theory of the rationality and efficiency of the marketplace, with stock prices rapidly adjusting to reflect new public information.

Although the legal standard of materiality is not based on market efficiency or rationality, event studies are relied on in many types of cases to address issues related to materiality and damages.

In securities litigation, for example, event studies routinely are used to establish the materiality of alleged misstatements or omissions, and thus help establish loss causation. Damages estimates in securities litigation are also based on event studies. Given their widespread use, can we rely on event studies to determine the impact of post-hostile-bid disclosures on the target's stock price? The answer is: No.

Running the Numbers

An event study involves implementing a market model, which measures the correlation between the returns on a particular company and the returns on market and/ or relevant industry indexes. In general, estimates of correlation are computed over a time period that ends prior to the event of interest (the estimation period).

For example, let's assume that on March 1, Firm A receives a public hostile bid from Firm B to acquire all of Firm A's stock for $20 in cash, and no other news concerning Firm A emerges on that date. Also assume that on the same date, Firm A's

stock price increases by 20 percent — from $16 to $19.20. To compute the impact of the hostile bid on Firm A's stock price, we would have to determine what fraction of the 20 percent return observed on March 1 was related to the disclosure of the bid, and what fraction can be attributed to marketwide changes.

Let's assume first that, based on a market model that regresses daily returns of Firm A on the S&P 500 Index over a one-year period ending Feb. 28 (the estimation period), Firm A's beta (that is, the movement of its stock price relative to market movement) is 0.8; and second, that the S&P 500's return on March 1 was 1.25 percent. Based on the historical relationship between the return on Firm A's stock and the S&P 500 we can predict that but for the hostile bid, Firm A's stock return on March 1 (the event period) would have been 1 percent (0.8 multiplied by 1.25 percent). Thus, 19 percent of the observed 20 percent return can be attributed to the hostile bid. (The return over and above the market return is also called an excess or abnormal return.)

Since the event-study methodology is predicated on market efficiency, the regression model underlying an event study can be used effectively only if we can reasonably assume that stock prices at any given time fully reflect all publicly available information. Further, an event study assumes that the relationship between the stock returns and market/ industry returns, the beta, is the same over both the estimation period and the event period. In other words, we need to be reasonably confident that the beta computed over some historical period can be used to predict the returns over the event period.

An Announcement Changes Everything

However, once a hostile offer has been made public, the relationship between the returns on the target's stock and market/ industry indices changes fundamentally. Consider again the hypothetical example above, in which Firm A was the subject of a hostile bid on March 1.

Now, further assume that on March 20, Firm A increases its earnings per share guidance for the entire year by 4 cents; Firm A's stock price subsequently increases by about 1 percent to $19.40. The S&P 500 also increases by 1 percent.

If we were to mechanically run an event study, we would conclude — incorrectly — that the EPS guidance announcement had little or no impact on Firm A's value, as 0.80 percent of the 1 percent return on March 20 can be attributed to marketwide returns (1.0 percent multiplied by the beta of .80) — in other words, the abnormal return associated with increased EPS guidance is only 0.2 percent. Our conclusion is flawed for at least two reasons.

First, it is well established that once a stock is subject to a takeover bid, its value is driven by the market's expectations as to the likelihood that the merger will be consummated and, if so, when and at what price.

Thus, for us to evaluate changes in Firm A's stock price after March 1 on the basis of pre-March 1 volatility and market correlation will lead to incorrect results. There is little or no economic rationale to assume that Firm A's beta after March 1 should remain at 0.8. In fact, one could argue that it should be close to zero, based on studies of the risk/return characteristics of funds that specialize in investing in the stocks of takeover targets.

Second, and perhaps more crucial, market models try to predict returns of a stock based on returns of industrywide or marketwide returns; they do not capture changes in market expectations regarding the likelihood of the completion of the pending merger, which are what drive the stock returns of takeover targets. Returning to our hypothetical example, let's assume that on March 19, the price of Firm A is $19.20, and that the market assigns the $20 bid an 80 percent chance of success.

Further assume that the market expects Firm A's stock price to fall to $16 (the fallback price) if the takeover attempt fails. (For ease of exposition, other possibilities, such as the likelihood of a change in the offer price, are here ignored.) Thus, $19.20 represents a probability-weighted price for Firm A: 80 percent x $20 (if the takeover is successful) plus 20 percent x $16 (if the bid fails).

As a result of the EPS guidance announcement on March 20, the market revises the expected fallback price of Firm A's stock to $17 if the bid fails. This $1 increase in the fallback price would cause Firm A's stock price on March 20 to increase to

$19.40 (80 percent x $40 plus 20 percent x $17). We can see that the guidance announcement results in a significant increase in the market's assessment of Firm A's fallback stock price — but its stock price increases by only 20 cents on March 20 because the market assigns a very high probability that Firm B will acquire Firm A for $20.

Given the unsuitability of event studies to produce accurate and reliable results in merger-related litigation, what alternative methodologies should be considered?

One approach would be to analyze the impact of disclosures by reviewing commentary by analysts and others. For example, equity analysts may increase earnings growth guidance or price targets in response to such an announcement. Alternatively, one can also infer the price impact of the announcement by analyzing the particular firm's reaction to similar announcements in the past.

In summary, merger-related litigation often involves disputes concerning the materiality of certain disclosures on the value of a target, and, in particular, their impact on the stock price of the target in the absence of the outstanding bid. Mechanical use of event studies is likely to result in flawed conclusions because the assumptions that underlie the methodology do not necessarily apply to firms that are the target of outstanding offers.

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