

Examining The Role Of Market Price In Appraisal: Part 2

By **Dirk Hackbarth and Bin Zhou** (September 11, 2018, 12:56 PM EDT)

In part one of this two-part article, we argue that courts rely more on market price in appraising fair value of stocks that are actively traded on a U.S. stock exchange and where there is no controlling shareholder. In the case of Aruba, expert evidence of market efficiency was not presented by either party to the court. The Aruba court instead considered a number of factors routinely used in 10(b)-5 securities cases to conclude that Aruba's stock price is a possible proxy for fair value. The court then suggests that "[p]erhaps future appraisal litigants will retain experts on market efficiency ... and maybe future appraisal decisions will consider subtler aspects of the efficient capital markets hypothesis."^[1] Here, we propose several tests to empirically assess the reliability of market price.



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Market Efficiency Tests for Appraisal Cases

The workhorse model in 10(b)-5 securities cases is an event study, a statistical method used to determine whether and how quickly a distinctive corporate event — such as the announcement of earnings or the announcement of a proposed merger — is associated with a statistically significant change in the price of a company's stock. Event studies are widely used tools for establishing market efficiency and should be adopted for the market tests in appraisal actions. However, we believe that additional tests are desired for appraisal actions due to two issues with the event study. First, the current practice in 10(b)-5 cases is almost always a single-firm event study that examines the price moves of a single stock involved in the litigation, whereas almost all event studies in academic research are multifirm event studies that examine the returns of many firms that cluster around a common type of event. Adopting a methodology that financial economists developed for use with multiple firms into a single-firm context undercuts the event studies' statistical power.^[2] Second, event studies are based on changes in stock prices around the event days, and not direct tests about price levels. In the Delaware Chancery Court's quest for fair value, an instantaneous change in stock price in response to a major corporate event does not inform the parties whether the stock prices before or after the announcement are fair.



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Additional tests for appraisals will be whether trading multiples or prices are in line with peer companies: Is the agency cost typical of peer companies? Is there an informational gap between the company and the market? Is the market trading or board of directors driven by short-term investors?

etc. These additional tests will inform whether fair value can be reasonably based on the market price, and whether there is evidence of minority discount or “exploitation” in the market price.

We propose three sets of indicia for fair value: (a) liquidity and market microstructure; (b) corporate governance; and (c) accounting transparency. Part (a) of our proposed tests is an extension of the tests used in securities litigation. Parts (b) and (c) of our tests are proposed to establish or refute the Delaware Chancery Court's historical suspicion of an implicit minority discount in the stock price. Cross-sectional comparisons can be easily shown in histograms to see how the target company's measures at a point in time stack up against its peers or the market. Time series plots of the target's measures can be used to detect any abnormal patterns over time. Potentially, when the signals from each measure individually are conflicting with each other, regression analyses of various variables listed above could be performed to measure the combined effects of the proposed factors on the target company's stock. These types of analyses could be used either as a more sophisticated test of market efficiency for the appraisal actions, or as an alternative market-based measure of Delaware fair value.

Liquidity and Market Microstructure

As recognized by the Delaware Chancery Court, when the company had no conflicts related to the transaction, a deep base of public shareholders, and highly active trading, the price at which its shares trade is informative of fair value. Public floats^[3] and bid-ask spreads are routinely used in securities litigation to test market efficiency, where these liquidity measures are compared to some ad hoc rules of thumb. The innovation in our proposal is a cross-sectional, and potentially time series, benchmarking of the target stock's liquidity measures relative to those of the firm's industry peers or the general stock market.

Economists generally define liquidity as the ability to buy or sell significant quantities of a security quickly, anonymously, and with minimal or no price impact. In addition to public float and bid-ask spreads, we propose five more proxies: volatility of daily bid-ask spreads; trading volume (unscaled or scaled by public float); trading frequency (the number of trades executed within a prespecified interval); trade size (the quantity of stocks traded at the bid and offer prices); and quote size (the quantity of securities tradable at the market maker's bid and offer prices).

We expect market values to be more informative about fair values when the above-listed measures indicate that the target firm's stock is traded in a more liquid and deeper market than its peers and the market.

Corporate Governance and Market for Corporate Control

Our second set of empirical tests is a measure of internal corporate governance and external market for corporate control, such as anti-takeover provisions in corporate charters and the presence of institutional shareholders in the target company relative to its peers.

Because takeovers serve as an external control mechanism that limits major managerial departures from maximization of stockholder wealth, academic research has studied whether anti-takeover provisions are associated with lower valuations. Such anti-takeover provisions include the presence of staggered boards, poison pills, and restrictions on shareholder voting to call special meetings or act through written consent. For example, the Governance Index (or “G-index”), originally developed by Gompers et al. (2003),^[4] consists of 24 anti-takeover provisions (or shareholder rights) that insulate the firm from the market for corporate control. Using data between 1990 and 2006, Gompers et al. (2003) documents

a positive relation between better governance and firm valuation and firm accounting performance (e.g., return on equity). More recent work by Bebchuk et al. (2009) confirms these basic results, and suggests that six out of the 24 anti-takeover provisions are the key determinants of Gompers et al.'s findings.[5]

Coinciding with the decline of hostile takeovers in the 1980s is the emergence of activist investors, such as institutional investors and hedge funds, in corporate governance. In fact, since U.S. publicly traded companies are typically owned by dispersed shareholders, and corporate decision-making and operations are delegated to professional managers, economists have studied the role of large shareholders in mitigating frictions arising from the separation of ownership and control. Especially, activists can be good outside monitors and even challengers, which discipline the firm management and hence can improve firm value. Activism has also been due to hedge funds, which can intervene more promptly because they have limited ties to businesses, face little regulatory oversight, and feature high-powered pay-for-performance contracts that make intervention more probable even if it is costly.

Therefore, we predict market price to be more reflective of fair value when both internal and external governance of the target company are better than the peers.

Accounting Transparency

Our last set of empirical tests relates to the opacity or transparency of the target company's accounting information. These measures are of independent interest to outside minority shareholders, as well as pertaining to takeover vulnerability, because a transparent environment could make it easier for an acquiring firm to determine the target value or synergy. We propose two groups of indicators — one based on accruals and earnings management, and another based on earnings forecasts from equity analysts.

Under the generally accepted principle of accounting, various accounting accruals are made to the timing of cash flows, so that the reported financial earnings can more accurately reflect the economic performance of the firm. However, because the firm management has a certain level of discretion in accrual accounting, accruals contain important information for the future earnings of the firm, but an outside observer who does not understand these adjustments could have an incorrect (often positively shifted) view of the firm's future prospects. So our first group of indicators measure degrees of earnings management among three dimensions:[6]

1. Earnings aggressiveness ($\text{Net Income} - \text{Cash Flow from Operations}$)/Cash Flow from Operations: It measures the tendency of the firm's management to postpone realizing losses and accelerate realizing gains by managing accruals;
2. Loss avoidance measures the number of small positive net income relative to the number of small negative net income. An observed asymmetry around net income of zero is indicative of the firm management trying to avoid losses; and
3. Earnings smoothing can be measured by the standard deviation of earnings over time. If accounting earnings are artificially smoothed, swings in underlying firm performance are less likely to be timely detected, and quality of earnings deteriorates.

We predict that market price is a more reliable indicator of fair value when these accounting opacity measures assume relatively low values.

In the second group, a basic measure of transparency is analyst coverage. Note that this measure is similar to the ad hoc number-of-analyst-coverage factor used in securities litigation. It reflects the number of analysts following the firm. We predict that market price is a more reliable indicator of fair value if the number of analysts following the company is higher. Moreover, analyst-forecast error, analyst-forecast dispersion and forecast revision volatility can be formed based on analysts' earnings forecasts. We predict that market price is a more reliable indicator of fair value when these three transparency measures assume relatively low values.

Conclusion

To recap, we recommend that courts rely more on market price in appraising fair value of stocks that are actively traded on a U.S. stock exchange and where there is no controlling shareholder. In response to the Aruba court's invitation of expert opinions on market efficiency, this proposes a number of cross-section and time series tests that can give guidance as to reliability of market price as an indicator of fair value. In particular, in addition to market efficiency tests commonly used in securities litigation, we suggest a complementary set of tests that focus on market and company fundamentals (i.e., liquidity, corporate governance and transparency).

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[1] Aruba Feb. 2018 Opinion, at footnote 257.

[2] Alon Brav and J. B. Heaton, "Event studies in securities litigation: low power, confounding effects, and bias," *Washington University Law Review* 93, 583-614 (2015).

[3] Float is defined as shares not owned by corporate insiders. It can be measured by both the absolute shares and the ratio of floats over total shareholder outstanding. It is expected that float has a negative impact on liquidity.

[4] Paul A. Gompers, Joy L. Ishii and Andrew Metrick, "Corporate governance and equity prices," *Quarterly Journal of Economics* 118, 107-155 (2001).

[5] Lucian Bebchuk, Alma Cohen and Allen Ferrell, "What matters in corporate governance?" *Review of Financial Studies* 22, 783-827 (2009).

[6] Paul M. Healy and James M. Wahlen, "A review of the earnings management literature and its implications for standard setting," *Accounting Horizons* 13, 365-383 (1999).