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Pitfalls of Single-Security Event Studies in Securities Litigation

Authors Alon Brav and J.B. Heaton bring to light some of the problems evident in the use of event studies in securities litigation in their recent article.[1] As every expert knows, Courts have become enamored with event study methodology for ascribing information effects to stock prices. An expert's opinion on market efficiency and/or damages is at risk if it is devoid of a supporting event study analysis.

Event studies have been used in economics and finance for more than 40 years.[2] They provide a foundation for reliable expert testimony under *Daubert* standards because, among other things, their results are replicable and have withstood peer review. However, as the authors point out, traditional event studies focusing on stock-splits, corporate earnings announcements, and the like have been performed on a multi-security basis, using in some cases decades of daily price changes. The application of event study methodology to large numbers of securities and many data points "neutralizes" the effect of aberrant price behavior, much like the returns to a stock index conceal extreme volatility in any of its component securities.

The securities litigation expert is limited however by the fact that the subject of interest is a singular security and the relevant time period is somewhat constrained. The authors demonstrate that single-firm event studies ("SFES") suffer from: (a) lower-powered regression equations resulting in a "higher than probable" hurdle for finding statistically significant returns; (b) no ability to deal with confounding information (i.e., unrelated to the fraud); and (c) upward bias in price impact measurement. Each of these is a real concern.

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[1] Alon Brav and J.B. Heaton, "Event Studies in Securities Litigation: Low Power, Confounding Effects, and Bias," [prepared for 21st Annual Institute for Law and Economic Policy Conference: new Directions for Corporate and Securities Litigation (co-sponsored by Washington University Law Review and Institute for Law and Economics Policy)], March 30, 2015.

[2] See, e.g.: Fama, Eugene F., Fisher, Lawrence, Jensen, Michael C., and Roll, Richard, "The Adjustment of Stock Prices to New Information," International Economic Review, Vol. 10, No. 1, February 1969.

We contend that an additional concern with the SFES is the design of the study itself and the selection of events of interest. Regardless of results, study design is open to attack and must be conducted using scientific principles. The design of the SFES is generally prone to attack due to a limited number of events of interest and the non-uniformity of the events' information content. In conducting a SFES it may not be practical to limit events of interest to unexpected earnings announcements, dividend eliminations, or stock splits. With a single security, none of those events may have occurred during the relevant time period. Instead, it may be necessary to group unexpected corporate events into categories, such as reductions in earnings guidance, for example, and to analyze the announcements that fall into pre-defined categories. In any case, experts are often criticized for subjective selection of events of interest which is much more difficult to overcome in the SFES.

A recent Southern District of New York decision warned against placing too much emphasis on SFES results in measuring market efficiency. District Judge Shira Scheindlin's opinion, certifying the class in *Carpenters Pension Trust Fund of St. Louis et al v. Barclays PLC et al, No. 12-05329*, provided a refreshing view of the role of event studies in assessing the efficiency of the market for a particular security. She asserts that the "failure of an event study to show immediate impoundment does not necessarily indicate whether the market is efficient for purposes of the *Basic* presumption." She acknowledges the inherent shortfalls of SFES including that traditional event studies discussed in the academic literature "are almost exclusively conducted with large samples of securities from a number of different firms," citing the *Brav and Heaton* article. She concludes that while event studies can be helpful in assessing market efficiency, they are not always necessary.

Experts will continue to employ event studies in assessing materiality, loss causation and damages in litigation and will, as a result, be challenged by the artificial constraints of a single-security study. Some of these limitations, and future challenges, can be minimized during the study's design phase including, for example, employing an objective process for identifying the events of interest and selecting a "noise-free" control period. Other limitations, such as lower-powered regression equations and establishing a higher hurdle for detecting statistical significance, are inherent given the reduced sample size relative to multi-security studies spanning broader periods of time. Litigation experts must recognize that the event study method is a useful analytical tool but is not dispositive in determining price impact with absolute precision. Regardless of the integrity of design or the power of the equation, at the end of the day the event study's importance is in the hands of the gatekeeper.