Not Accounting for Algorithmic Trading May Skew Settlements

Since 2005, algorithmic trading, particularly high-frequency trading executed in milliseconds (HFT), has dramatically changed the secondary equity securities markets, both absolutely and as a proportion of total trading volume. Algorithmic trading, particularly HFT, does not typically rely on the integrity of market prices or fundamental information pertaining to issuers. As the Wall Street Journal reported on Feb. 23, 2012, “[S]ecurities and Exchange Commission (SEC) Chairman Mary Schapiro said a large portion of equities trading has little to do with ‘the fundamentals of the company being traded.’”

If economists retained by litigants in Rule 10b-5 securities class action litigation do not eliminate most, if not all, of algorithmic trading when estimating damages for settlement purposes, the number of class members certified in class actions may be overestimated, resulting in exaggerated estimates of aggregate damages. In turn, exaggerated estimates of aggregate damages may magnify the in terrorem effect of class actions, resulting in skewed settlements.

In a 2010 Concept Release on Equity Market Structure,2 the SEC recognized this dramatic change in the secondary markets, stating that “[t]he secondary market for U.S. listed equity securities has changed dramatically in recent years. In large part, the change reflects the culmination of a decade-long trend from a market structure with primarily manual trading to a market structure with primarily automated trading.” The predominant form of automated trading—algorithmic trading—is executed electronically by means of computer algorithms, with the algorithm either initiating the order or governing its execution in terms of timing, price or quantity. Examples include dividing large orders into smaller sizes to obtain better priced executions, exploiting minute price differences among markets, executing based on developing price trends, and exploiting perceived anomalies in pricing based upon historical price relationships.

A form of algorithmic trading is HFT—quantitative trading characterized by extremely short holding periods—which may occur in milliseconds and may involve traders having direct access to trading facilities. HFT typically employs strategies such as statistical5 or event arbitrage6 and often involves the use of rapid fire buy and sell orders. In November 2010, the SEC stated that “HFT alone has been estimated to account for more than 50 percent of U.S. equities market volume.” Other estimates have put it as high as 70 to 80 percent, although HFT, as a subset of algorithmic trading, is often referenced interchangeably with algorithmic trading in general.

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However one views it, algorithmic trading, inclusive of HFT, dominates the equities markets. HFT traders, initiating and executing trades in milliseconds, and other algorithmic traders, seeking to exploit pricing anomalies and arbitrage opportunities, are not executing trades relying upon fundamental information or the premise that stock prices reflect all available fundamental information. HFT trading may contribute to market efficiency and liquidity by eliminating minute pricing disparities, but it certainly does not involve reliance upon fundamental information embedded in prices for making trading decisions. Likewise, other algorithmic traders, engaged in inter-day or intra-day trading and using computer algorithms to implement trading strategies, are predominantly not relying on stock prices as a fair reflection of fundamental information concerning the future cash flows of issuers.

Applying a rebuttable presumption of reliance on stock prices based upon market efficiency, as enunciated by the U.S. Supreme Court in the seminal case of Basic Inc. v. Levinson, to high-frequency traders and most algorithmic traders does not make sense. Inherently, these traders are not relying upon the fairness of the market price based upon the market taking into account all available public fundamental information; rather, they are exploiting pricing anomalies, arbitrage opportunities and strategies to lower transaction costs. For this reason alone, algorithmic traders should be excluded from any Rule 10b-5 classes. Otherwise, and in any event, a cumbersome examination of each algorithm utilized by each algorithmic trader would be necessary, raising a predominance of individual issues likely defeating class certification. To the extent there might remain a small minority of non-HFT algorithmic traders who might theoretically be able to establish reliance on the integrity of the market price of a security, they are no doubt sophisticated investors who can fend for themselves so that excluding them broadly from the class definition in order to protect class action certification for others is sensible.
Even if algorithmic traders are not carved out of the class definition, their individual claims would ultimately likely fail since any presumption of reliance would be rebuttable in most instances—assuming they would even submit claims subjecting their individual proprietary algorithms to scrutiny. Whether as a result of carve out from class certification, the unlikelihood of algorithmic traders submitting claims, or the rejection of individual claims as result of the rebuff of the presumption of reliance, estimates of potential damages for settlement negotiation purposes would be sharply reduced.

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Virtually, if not all, economic models currently utilized to estimate damages in aftermarket securities litigation, whether plaintiff or defendant oriented, do not explicitly recognize, and thus do not exclude, the high volume of algorithmic traders. The negotiation of settlements is the actual outcome determinant for the great majority of Rule 10b-5 class actions since most that are not initially dismissed are settled and do not go to any verdict. Those few that do go to verdict and are lost by defendants have been resolved by settlement prior to the entry of a final judgment after an adjudication concerning the applicability of a rebuttable presumption of reliance to submitted individual claims.

Settlement negotiations that do not fully take into account the predominance of algorithmic trading due to the inadequacy of economic models are skewed to the high side. This is not to blame the economists. Even before the significant change in equities trading, the models generally applied to estimating damages were not usable for the purpose of entering judgment since they could not reliably estimate damages due to differences in the trading behavior of investors in different companies and to an absence of data prior to the submission of actual claims. But, if those models were previously considered adequate for the negotiation of settlements, they are not today when they do not take from SEC filings simply does not pick up intra-quarter changes much less intra-day changes in equity holdings. The velocity of trading among institutions can differ considerably and a relatively small number of institutions engaging in very fast trading, especially HFT, can be responsible for most of the reported daily volume of the trading of an equity security.

There are difficulties in measuring potential damages in securities class actions to take into account the predominance of algorithmic traders due to a paucity of data concerning algorithmic trading that should not be underestimated. HFT traders are particularly difficult to identify, often trading through “dark pools” that hide their identities. Nevertheless, it is important to recognize that properly excluding algorithmic trading from estimated damages can result in a reduction in damage estimates by a substantial order of magnitude reaching in some instances as high as 90 percent of estimates produced by models commonly used by plaintiffs and 50 to 75 percent of estimates commonly produced by models utilized by defendants—based solely on shares traded and not differences in the economic estimates of price inflation.

The changes in the secondary equity markets since 2005 due to the predominance of algorithmic trading, especially HFT, can only be ignored at the risk of significantly skewing 10b-5 class action settlements. This may benefit those class members actually submitting claims, but it may misallocate resources to the detriment of current shareholders and other current corporate constituencies.