CRA Insights: Financial Markets

CRA Charles River Associates

May 2012

In this issue

Senior Consultant to CRA **Larry Harris** discusses how losses in poorly performing managed investment portfolios can result in fraudulent trade allegations, the steps used to analyze such allegations, and, if fraudulent trade assignments did occur, how they can be identified and valued.

Sorting out losses in managed investment portfolios: bad trades or fraudulent trade assignment?

When investments perform poorly, investors sometimes look to recover their portfolio losses through litigation. Differences in performance between separate client accounts and managers' house accounts can lead to allegations of selective assignment of stock purchases that favor the house accounts to the detriment of client accounts (this practice is often described as "cherry-picking"). Such allegations must be taken seriously as they can draw the attention of both the US Securities and Exchange Commission and the Department of Justice. If fraudulent behavior occurred then significant damages awards and even prison sentences may ensue. For example, George Motz of Quogue, New York was sentenced to eight years in federal prison for his role in a fraudulent trade assignment case.

In a typical fraudulent trade allocation allegation, plaintiffs allege that a money manager buys stocks for accounts that he manages and then waits to see which trades prove profitable later in the day. The profitable trades then are disproportionately assigned to the house accounts while unprofitable trades are disproportionately assigned to clients' accounts. As a consequence, the house accounts gain at the expense of the clients' accounts.

The effect of the alleged fraud can be understood two ways. If some successful trades that went into the house account should have gone into the client accounts, those trade assignments then deprive the client accounts of the opportunity to profit from successful trades—the trade assignment represents the sale of an appreciated security from the client account to the house account at a lower price than the market price that prevailed at the time of the assignment. Alternatively, if some losing trades that went into the client accounts should have gone into the house account, those trade assignments essentially force the client accounts to take on losing trades—the trade assignment represents the sale of a depreciated security from the house account to a client account at a higher price than the market price that prevailed at the time of the assignment.

Analyzing fraudulent allegations

In analyzing such allegations, the first step is to investigate the policies and procedures followed by the money manager in executing trades and assigning them to accounts. If this analysis shows that the money manager had the opportunity to allocate stock purchases at times after the actual trades were made, several statistical analyses can be performed to test allegations of cherry picking.

For example, the profitability and number of winning trades in both house and client accounts can be studied to determine whether the relative performance of these accounts appears statistically unlikely. If the money manager makes an allocation decision before or at the time of stock purchase, or based on a preset rule that does not depend on the performance of the trade, under most circumstances, little gain or loss is expected to occur on average between the time of purchase and the end-of-day price. For almost all money managers, first-day trade profits and first-day losses will offset each other on average when examined over many transactions and many days.

In addition to a comparative statistical analysis of winning trades and profits for house accounts and client accounts, the entire set of trades for both house and client accounts can be analyzed together. Results that show an unremarkable distribution of winning and losing trades and associated profits for the entire universe can be used to support the argument that the more profitable accounts received preferential trade assignments with corresponding harm to other accounts. In response, additional research would analyze any differences in trading objectives, strategies, and constraints that might show that the discrepancies in profitability arose from legitimate and benign causes.

Assessing damages

If a conclusion is reached or assumed that fraudulent trade assignments did occur, damages that result from the fraudulent trade assignments generally can be calculated in two ways. Properly executed, both methods yield the same damages estimate. The first method assumes that the victims would have been allocated the trades that they actually received but at the prices prevailing in the market at the time when the trade assignments were actually made. If this information is available, the loss can be computed by comparing the market price prevailing at the time of assignment to the average purchase price for all trades in the subject stocks that were assigned to the client accounts. As the client accounts should have received the price at the time of assignment rather than an earlier price, the loss for a given trade would be the difference between the assignment time price and the purchase price times the number of shares assigned to the client accounts for that given trade. The total loss would be the sum of this product for all assigned trades. Because the actual assignment time prices are often not available, these prices can be estimated using the stocks' end-of-day prices, adjusted for market microstructure effects.

An alternative method assumes that the disadvantaged customer accounts should have received trades that were assigned to the house accounts. The losses would then be calculated by assuming that, having received these trade assignments, the disadvantaged customer accounts would sell those trades at the market price prevailing at the times of the assignments. These prices are normally higher than the purchase price if allocations had favored house accounts. Because the precise times of trade assignments are usually not known, estimates must be made regarding those prices.

About our Financial Markets Practice

CRA's Financial Markets Practice provides advanced consulting services to corporate clients and attorneys. We specialize in applying the tools, principles, and findings of finance, economics, and accounting to complex litigation and business problems. Companies, law firms, and government agencies rely on CRA for high-quality research and analysis, expert testimony, and comprehensive support in litigation and regulatory proceedings. Our reputation is built on exceptional client service and our ability to present innovative and pragmatic solutions to complicated challenges. For additional information about how CRA's financial experts can help you with your litigation and regulatory needs, please visit **www.crai.com/financialmarkets**.

About the author

Senior Consultant to CRA Larry Harris has significant experience working for both government agencies and defendants in matters in which fraudulent trade allocation schemes have been alleged. Professor Harris holds the Fred V. Keenan Chair in Finance at the USC Marshall School of Business. He served as Chief Economist of the US Securities and Exchange Commission from 2002 to 2004 and is the author of the leading textbook on the economics of trading, *Trading and Exchanges: Market Microstructure for Practitioners* (Oxford University Press: 2003).

Contact

For more information about this *CRA Insights*, please contact the author:

Larry Harris
Senior Consultant to CRA
lharris@usc.edu

or

Brian Palmer
Vice President
Los Angeles
+1-213-236-3607
bpalmer@crai.com

www.crai.com/financialmarkets

CRA Charles River Associates