The Fiduciary Implications for Advisors of High-Frequency Trading

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Since 2007, trading speed in the U.S. equities markets has been slashed from minutes to millionths of a second. High-frequency trading (HFT) allows traders to dart in and out of securities in pursuit of tiny gains magnified by huge scale. HFT dominates many of the major global markets and accounts for up to three-quarters of U.S. equity-market turnover by volume.

However, traders and investors have time horizons at opposite ends of the spectrum, and as a result, traders may profit at investors’ expense.

As fiduciaries, advisors are obligated to serve clients’ best interests. They must apply prudent process, assess risk, and avoid conflicts of interest. This article identifies the unique challenges that HFT poses for investment fiduciaries, reviews current regulatory efforts to curb market risk that results from HFT, and suggests best practices to cope with a rapid-trading environment.

Challenges Posed by HFT
HFT falls inside the realm of algorithmic securities trading and is characterized by the use of sophisticated technology and automated decision-making strategies to conduct and manage rapid securities trading. HFT is characterized by the use of sophisticated technology and automated decision-making strategies to conduct and manage rapid securities trading. HFT generally removes liquidity from the market, including liquidity produced by limit orders. One example of aggressive HFT is arbitrage trading to capture pricing disparities between different markets. Another tactic is known as momentum ignition, in which the trader establishes an early position in a security then conducts a series of trading activities designed to trigger action by other traders that will produce favorable price movements; profits are captured by closing the initial position.

Aggressive HFT strategies are controversial because the intended ripple effects across markets can be manipulative, rather than opportunistic. Critics contend that aggressive strategies can have the opposite effect of passive strategies by removing liquidity from the markets, destabilizing markets, and burdening investors with collateral costs. Some critics of aggressive HFT say it creates systemic risks such as potential for an enduring flash crash, and cost-related concerns for advisors due to abusive HFT practices such as spoofing and front running that raise the bid price for securities. We focus on the challenges that aggressive HFT strategies create for investment advisors.

Risks of Aggressive HFT
The potential risks associated with HFT became manifest on May 6, 2010, when approximately $1 trillion in market value vanished in minutes. Even today, controversy surrounds the origins of the now infamous Flash Crash of 2010, in which the Dow Jones Industrial Index plummeted 9.2 percent before recovering.

According to preliminary findings by regulators, published eight days after the crash, “whipsawing of prices resulted in investors selling at losses during the decline and undermined confidence in the markets.” The Securities and Exchange Commission (SEC), in cooperation with the Commodity Futures Trading Commission (CFTC),
combed through millions of data points over the ensuing months before releasing a final report in September 2010.3 The findings pinpointed the origin of the problem to an automated trade of a large fund complex, but not everyone agrees about the cause.

To the average investor checking only the market close, those 20 minutes or so of chaos on the afternoon of May 6 likely passed unnoticed. The market was down at the end of the day, but it had largely recovered from a tumultuous, nerve-wracking 20 minutes between 2:40 and 3:00 p.m. ET when more than 2 billion shares traded and market liquidity evaporated. According to the final report, one important lesson learned by regulators was that the interaction between automated execution programs and algorithmic trading strategies "can quickly erode liquidity and result in disorderly markets."4

Following the market close, the stock exchanges and the Financial Industry Regulatory Authority (FINRA) met and jointly agreed to cancel all of these particular transactions under "clearly erroneous" trade rules.

If the Flash Crash of 2010 was simply a one-time event that was studied, understood, and cured through market reforms, advisors wouldn’t need to add HFT-related market contagions to their list of concerns. Unfortunately, that is not the case. Mini flash-crashes are a continuing phenomenon, and some are not so small.5

Another significant flash crash occurred in the market for U.S. government bonds on October 15, 2014. On that day, the yield on 10-year Treasury notes swung 15 basis points and back in the span of just 15 minutes. The event prompted an intensive review and a white paper by the Treasury Market Practices Group, which concluded in part:

The speed and size of price movements may have led some proprietary trading firms to limit participation and some broker-dealers to reduce their market-making activity to customers. The events of October 15 suggest that it is worthwhile to continue to evaluate issues related to the evolving structure and liquidity characteristics of the Treasury market, including with respect to the role of automated trading. … The risks of automated trading in the Treasury securities market include operational risk, potential systemic counterparty risk, market manipulation risks, transmission risks, and risks to market liquidity.6

SEC Chair Mary Jo White, who has spoken on several occasions about the importance of structural market reform, insists that the markets are “not broken, let alone rigged.”7 In her letter to a Senate committee investigating HFT activity, White said HFT comes in two broad types of algorithms: proprietary algorithms used by high-frequency traders and automated programs used by institutional investors for large-order execution.8 Definitive findings on HFT abuse and manipulation have been made in recent years on understanding the effects of HFT, but “questions remain.”9 She continued by adding that progress has been made in recent years on understanding the effects of HFT, but “questions remain.”10

In the Flash Crash of 2010, shares of Procter & Gamble, Accenture, and other companies traded as low as a penny and as high as $100,000 before bouncing back or being erased as erroneous trades.11 But recovery or erasure is not assured for future meltdowns, and wealth managers may find it difficult to explain such losses, no matter the size. To attribute a client’s losses to a computer glitch may not suffice.

Regulatory Speed Bumps, Surveillance, and Registration Checks

Safety-minded drivers know that the behavior of the people with whom they share the road is a primary determinant of their safety. Speed is a factor, and so is police oversight. Likewise, regulators have focused attention on managing speed and providing oversight for HFT.

Speed Bumps

The SEC does not want to set speed limits on HFT because hyper-velocity trading, in concept, is beneficial to all. To prevent accidents, however, the SEC has focused on circuit breakers that act like speed bumps to slow or halt HFT when conditions become hazardous.

Three years ago the SEC took an important step in this direction by approving two proposals.12 One creates a new circuit breaker for individual stocks and the other updates a 1980s vintage market-wide circuit breaker to slow down trading when it begins to overheat.

The first initiative is a pilot program that establishes a “limit up-limit down” mechanism for individual stocks and exchange-traded products. It is a stock-specific circuit breaker that limits trading to a specific price band in a 5- to 10-percent trading range of the current pricing. If the price exceeds the price band in either direction, a 5-minute trading pause will be imposed if the stock does not return to the trading range within 15 seconds.

The second initiative was designed to update market-wide circuit breakers put in place after the stock market crash of 1987. It has been triggered only once, in 1997. The changes reflect a concession to the new super-fast trading velocity by reducing the time it takes for an exchange to halt trading. The new triggers are set to 7-, 13-, and 20-percent drops from the prior day’s close; the old ones were set at 10, 20, and 30 percent. The duration of trading halts has been reduced to a single 15-minute stop from 30-, 60-, or 120-minute intervals. In addition, the more diversified S&P 500 Index has replaced the Dow Jones Industrial Average as the benchmark for measuring market declines.

Surveillance

To collect sufficient trading data to assess the impact of HFT on various classes of market participants, the SEC is planning to develop a Consolidated Audit Trail (CAT). According to the SEC, when CAT is fully implemented,13 the agency will be able to trace all order and trading activity across asset classes back to the account level and accurately sequence 58 billion records of daily trading activity.14 Hence the SEC will
be able to check the surveillance tapes to more quickly and fully analyze trading glitches and generate empirical data to inform new rulemakings.

Registration of HF Traders and Other Reforms
On March 25, 2015, the SEC announced its first regulatory initiative to increase oversight of proprietary traders. The new rule, when adopted, will require registration with FINRA of approximately 125 new dealers, the bulk of them HFT firms. Although registered with the SEC, these firms previously were exempt from FINRA registration under an exception designed principally for human proprietary traders on the floors of national exchanges.

Other pending proposals would require more information on firms’ management of risk when using trading algorithms, expand information on alternative trading systems that avoid traditional exchanges, and require disclosure of order-routing procedures so that institutional traders know where a broker places trades.

Since the 2008 market crash, the SEC, traditionally top-heavy with lawyers and accountants, has hired more industry experts to better understand market practices at the street level.16

Responsibilities of Fiduciary Advisors
As mentioned above, registered investment advisors are subject to fiduciary duties of loyalty and care.19 In basic terms, this means acting in the best interest of the client by avoiding or mitigating conflicts of interest, and making prudent investment recommendations based upon sound due diligence.

Advisors may feel powerless to avoid the potential negative repercussions of HFT because its effects are largely systemic and out of an advisor’s direct control. But an advisor’s fiduciary status necessitates awareness of marketplace dynamics and risks, vigilance in taking marketplace conditions into account when making recommendations or taking actions on behalf of clients, and due diligence in documenting and communicating to clients the basis for recommendations and actions. Systemic risk should not dominate an investment advisor’s approach to investing, of course, but it should be treated as an integral part of the duty to prudently balance risks and returns consistent with a client’s risk tolerance profile. Indeed, certain fiduciary best practices can be applied to address the challenges posed by HFT.

Informed Decision-Making
Translated into practice, a prudent investment process begins with awareness of legal and regulatory requirements as well as industry practices required under the law and by best practices. Given the significant amount of regulatory attention to HFT, and the unknown impact of systemic risk and excessive trading costs on retail and institutional clients, investment fiduciaries should keep current on related regulatory reforms and industry developments. Advisors must make informed decisions about whether
the risks of aggressive HFT are sufficient to take special precautions with client assets. High-level documentation of the key facts and considerations used in the decision-making process can be used to demonstrate fulfillment of the fact-finding aspect of the advisor’s due care obligation.

Diversification
Most advisors rely on diversification as a traditional and effective approach to balancing risk and return. For example, in 2008 when equity markets suffered steep declines, more-diversified retirement accounts lost substantially less. According to an industry report, the Standard & Poor’s Index dropped 37 percent and stock prices worldwide dropped more than 40 percent, but 401(k) accounts suffered a 24.3-percent decline.

Stress tests also may serve as indicators of market risk. They were used originally by banking regulators to test bank capitalization in scenarios mimicking severe market and economic turmoil. Now the SEC is planning to mandate stress tests for large asset managers, principally fund complexes. The agency already has mandated public disclosure of liquidity ratios in money market mutual funds after the run on money market funds in 2008. If the new stress tests are made public, as the banking regulators have done, these may serve as useful proxies for HFT risk because liquidity tends to evaporate in flash crashes.

Because banks with more than $50 billion in consolidated assets are now subject to higher capital buffers, advisors may want to periodically review the performance of investment banks within that category as another barometer of risk. In the most recent test, all the major investment banks passed. However, if a significant number fail future tests, it could be a useful warning to tilt client portfolios to a defensive posture.

Client Risk Profile and Communication
Advisors often use standardized risk tolerance tests to measure clients’ appetites for risk. They also generally discuss the range and volatility of likely investment outcomes over time when first crafting client portfolios. Periodically, such as when conducting portfolio performance reviews with clients, advisors should revisit these topics. All of these interactions should be documented.

Best Execution
A brokerage firm through which trades are placed is subject to a fiduciary duty of best execution, although the scope of that duty is focused on exercising “reasonable diligence” and finding the most favorable pricing “under prevailing market conditions.”

Among the factors used in determining

Update Investment Policy Statements
A carefully drafted and periodically reviewed investment policy statement (IPS) offers a number of benefits for both advisor and clients, particularly in times of market stress. In the event of a regulatory audit or investment dispute, the IPS documents the paper trail used to implement the advisor’s investment recommendations. An IPS helps avoid Monday-morning quarterbacking after a severe market correction and keeps decision-makers focused on long-term goals.

In terms of systemic risk, an IPS also may include “extraordinary circumstance” provisions that involve monitoring systemic risk indicators (such as the VIX or regulator stress test results) and provide special latitude to temporarily depart from the policy portfolio (i.e., the target asset allocation specified in the IPS). It is important to maintain flexibility and avoid putting any overly ambitious or rigid commitments in the IPS, such as extraordinary monitoring, watch list, and investment replacement procedures.
whether a brokerage firm has used reasonable diligence under FINRA Rule 5310 are price, volatility, liquidity, size and type of order, and number of markets checked.

Ideally, advisors could ask money managers and the broker–dealers they use for trading about the best-execution practices they employ. The questions could include where trades are executed, whether they are paid for order flow, how trades are prioritized for execution, if the broker–dealer executes trades through its own dark pool (where trade processing is particularly opaque), and whether trading reports are accessible for review to assure best execution has been obtained.

Inasmuch as HFT is a relatively new phenomenon, and until new disclosure rules are adopted by the SEC, it is unclear whether some of the due diligence questions we suggest can be answered authoritatively by trading firms. However, fiduciaries should consider making such inquiries to gain insight about how seriously these important service providers take their best-execution responsibilities and to potentially uncover whether these firms are participating in or exposed to aggressive HFT.

Conclusion

The impact of HFT on retail and institutional investors is slowly revealing itself. Advisors should follow fiduciary best practices with added sensitivity to the special risks associated with HFT, especially systemic risk. When new market transparency rules are fully in place, advisors should be able to improve their due diligence processes. Additional academic studies, and the rich datasets offered by CAT and MIDAS (once these systems are fully developed) should help fill the information void and lay the groundwork for further actions by regulators and fiduciaries to mitigate the risks associated with HFT.

Now and in the future, prudent processes, followed consistently for all clients and based on objective research, form the foundation for the high standard of conduct applicable to anyone entrusted with managing the property of others. As stated so eloquently by Justice Benjamin N. Cardozo almost 90 years ago in Meinhard v. Salmon, “Not honestly alone, but the punctilio of an honor the most sensitive, is then the standard of [a trustee’s] behavior.”

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Endnotes

9. Id., at id.
10. Id., at 2.

25. ICI Report, October 6, 2009, cited above.