



Beyond spoofing

Recent regulatory exam findings on market manipulation and spoofing signal concern about broader compliance program issues at investment firms

Recent enforcement actions by global regulators for spoofing manipulation¹ attempts present a clear signal that firms need to address and enhance aspects of their supervision and surveillance programs. Spoofing is one of many manipulative trading strategies performed by rogue traders in different products and markets. Other prohibited acts include price and benchmark manipulation, front running, momentum ignition, wash trades, and pump and dump schemes. The recent number of fines and size of fines levied

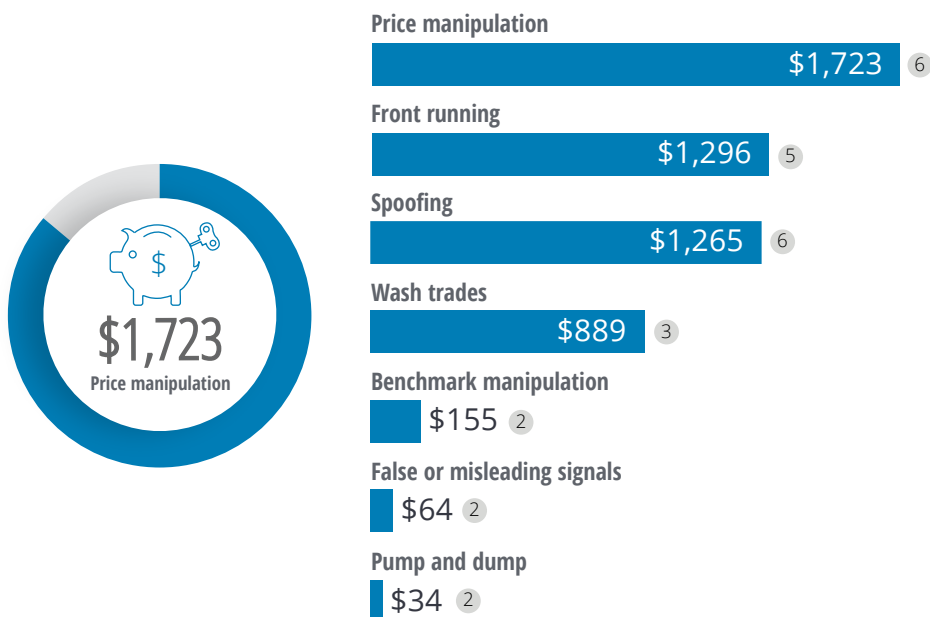
represents a broader enforcement effort by global regulators against market manipulation, and represents a subset of notable fines globally over the past three years (see figure 1 below). For example, between August and September 2020, the Commodity Futures Trading Commission issued seven enforcement actions on spoofing alone.²

Global regulators began focusing on rigging and manipulation of foreign exchange (FX) markets and benchmarks in the early 2010s

with significant enforcement actions and fines coming out in 2014-2015 for several of the largest global banks. In recent years, however, rogue traders have used similar strategies to manipulate derivatives, especially futures contracts for commodities as well as Treasury and interest rate products. Armed with improved technologies and data for investigation, regulators have employed investigations consent orders, trading restrictions and large fines to urge board and senior management to take action

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Figure 1: Total global regulatory fines by type of manipulative behavior³ (\$ millions)



Includes key market manipulation cases in 2018–2020

and improve their supervision and compliance programs.⁴

Understanding this trend

Regulatory requirements around market manipulation, spoofing included, are not new. In the latest major iteration in the US, Congress passed the [Dodd–Frank Wall Street Reform and Consumer Protection Act](#) (Dodd-Frank) in 2010.⁵

The European Union’s (EU) [Market Abuse Regulation](#) (MAR) came into effect in 2016 with prescriptive guidance on market abuse patterns that financial firms need to surveil for across all traded products.⁶ Firms have had ample time to implement these requirements. If recent enforcement is not a function of new requirements or regulations, what could be the cause of these ongoing market manipulation issues?

The answers to several questions below may shed some light on why these issues are occurring.

Are the latest cases due to new patterns of trading? Traders generally have the edge over supervision and compliance teams in terms of their understanding of markets as well as the different instruments and trading mechanisms. Firms are also

investing heavily to hire the best minds that can increase profits. Could it be that the new market manipulation cases are simply due to traders being a step ahead of the supervision and compliance programs and coming up with new and more sophisticated ways of manipulating markets? Are there manipulation patterns that haven’t been detected yet and do not meet the patterns for which regulators and supervisors are expecting and monitoring?

While regulators are saying that some traders may turn to newer methods to try to illegally influence prices, including injecting misleading information on one exchange in order to influence prices on a different one, the cases that have been flagged to date do not yet show new methods or patterns that diverge from previous waves. It is also important to note that firms are expected to monitor for any type of market manipulation coming from their traders’ or clients’ activities.

Is it the algorithms? Supervision and compliance teams have focused on algorithmic trading, even before the May 2010 “flash crash.”⁷ Since then, the volume of messages and the sophisticated trading strategies and requirements specific to

algorithmic trading, such as pinging, quote stuffing, smoking, and last look, have clearly been added to recent regulations and guidance.⁸

Are the algorithms responsible for the latest market manipulation cases? The answer is no.

While there are some cases of manipulation by algorithms, there haven’t been many and they are not the cause of many of the larger cases. Aside from after-the-fact monitoring of the order and execution flow coming from the algorithms, regulators also require firms to review the design of algorithms to ensure no abusive strategies are included, and to have pre-trade controls and circuit breakers that limit the abilities of algorithms to impact or manipulate the markets. These measures provide some additional protection from abusive activity.

Is it simply the regulators’ ability to monitor the markets better and detect outliers that they were not able to spot 10 years ago?

Possibly. As mentioned above, some of the global regulators have significantly increased the amount and types of data being collected and stored and have extended their capabilities to mine this data. They also have invested in dedicated data analytics teams and improved technology. In some of the larger cases, the regulators processed and mined terabytes of trading data and millions of pages of documents.

These improved capabilities allow regulators to:

- Flag behavioral and statistical outliers using advanced statistical analysis;
- Analyze trading activities across firms and counterparties; and
- Analyze trading activities across related instruments and across venues where relevant

The regulators’ improved ability to monitor the financial markets and to flag outliers in trading activities increases the pressure on firms to enhance their supervisory and

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surveillance programs. Regulators have integrated cross-product and inter-trading venue monitoring into regulations, as well as their guidance and examination priorities.⁹ In addition, examinations themselves have become more data driven and often involve data scientists. This requires firms to be able to query their data quickly and effectively as well as to be able to align and compare the results to outputs from the ongoing surveillance and monitoring that they have in place.

Regulators are limited, to an extent, in their ability to analyze a firm's orders and executions because they cannot tie orders and executions to a specific trader. Firms can, however, tie orders and executions to a specific trader, and are also required to monitor electronic communications by the traders as well as calls on recorded lines. Despite this expanded toolbox, aspects of surveillance and compliance programs continue to break down.

How can firms better prepare themselves to prevent and detect market manipulation?

Here are some of the areas that firms should consider prioritizing in their supervision and surveillance programs:

Correct understanding of risks and where they apply

Regulators expect that supervision and surveillance be based on an analysis of relevant risks as they pertain to the business and trading activity. Many firms rely on a high-level analysis instead of examining trade activities in detail, and therefore may miss potential risks. Other pitfalls include not applying a consistent approach across businesses and across geographies, prioritizing risks only in major markets, and discounting risks in over the counter (OTC) products vs. exchange traded products. The results can include gaps in coverage or in understanding how certain risks manifest, making gaps in coverage hard to justify to a regulator.

Access to better and more granular data

Accurate and complete data is the lifeblood of surveillance systems. Trading activities in certain products, venues, or countries

are often not fully covered at firms because the data has not been prioritized or sourced. In addition, more granular data is required now than in the past in order to fully monitor for market manipulation, including—but not limited to—full order and execution flow, request for quote (RFQ) data, and intraday market data.

Any deficiencies in data governance or data quality controls may cause the surveillance system not to monitor certain trades or not to raise legitimate alerts. Missing feeds or records and erroneous values in certain fields are potential data issues that can impede the integrity of a surveillance system.

Robust surveillance tuning and validation

Some firms do not have a robust enough process to validate and tune the surveillance scenarios in order to ensure their effectiveness. Effectiveness should be measured relative to the risks a control/scenario is supposed to mitigate and for all products and systems the control is covering.

Better governance of surveillance processes

Many of the cases repeatedly point to failures in key supervisory processes and the governance of these processes. Some firms have limited governance forums, processes, or dashboards that monitor surveillance outputs, escalations, and potential gaps. Without a structured approach to the governance of the different processes and components of the supervision and surveillance programs as well as clear views of the performance and outputs of these processes, failures can occur at different points without management's knowledge.

Connecting the dots

Some firms apply rule-based detection scenarios that analyze a single order or small set of orders/executions by the same trader. Firms can amplify their scenario detection capabilities by taking these additional steps:

- Analyzing traders' overall trading activity, as well as other alerts and risk signals for the same trader;

- Linking the trading patterns to supplemental data attributes such as positions, profit and loss (P&L), and human resources (HR) info;
- Analyzing activities across correlated instruments, as well as across trading venues; and
- Linking trade surveillance alerts and communications-based alerts.

Cross-matching rule-based detection with advanced statistical and behavioral analytics

With regulators becoming more prescriptive in the definitions of market manipulation behaviors, there is no sign yet that rule-based surveillance scenarios will sunset any time soon. However, firms can augment their rule-based scenarios in the following ways:

- Enhancing and continually improving rule sets through the use of machine learning and statistical analysis to identify what may be manipulative behavior;
- Profiling a trader's activity over time, flagging outliers versus their role, historic trading, or peers' trading, and setting thresholds for surveillance alerts; and
- Separating ad-hoc data mining efforts from business as usual (BAU) efforts to focus on specific risk areas or specific trading activities.

Closing

Ultimately, firms should give special care to putting a comprehensive governance processes in place, as well as clear metrics and performance indicators for tracking the supervision and surveillance program. Firms should go beyond addressing the misconduct and ensure the overarching compliance program is revisited in order to address why prohibited activity went undetected, or if detected was not properly handled. Advanced analytics can augment rule-based detection, but requires the right framework and quality data in place first. Through this proactive self-examination, firms may realize that addressing market abuse requires addressing culture, data, and governance. Addressing these issues is, in and of itself, worthwhile.

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End notes

- ¹ Between August and September 2020, the Commodity Futures Trading Commission issued seven enforcement actions related to spoofing.
- ² Spoofing—a manipulative practice in which traders submit multiple or large orders often away from the market on one side of the order book in order to move the price and execute a favorable trade on the other side of the order book. Once the trade has taken place, the orders with no intention to be executed are removed.
- ³ Deloitte analysis of global enforcement actions by financial services regulatory agencies.
- ⁴ Commodity Futures Trading Commission, “[Enforcement Actions](#),” accessed October 13, 2020.
- ⁵ US Congress, “H.R.4173 - Dodd-Frank Wall Street Reform and Consumer Protection Act,” accessed October 13, 2020.
- ⁶ European Union, “[Regulation \(EU\) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse \(market abuse regulation\)](#),” accessed October 13, 2020.
- ⁷ Securities and Exchange Commission (SEC) and Commodity Futures Trading Commission (CFTC), “[Findings regarding the market events of May 6, 2010](#),” accessed October 13, 2020.
- ⁸ European Union, “[Regulation \(EU\) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse \(market abuse regulation\)](#),” accessed October 13, 2020.
- ⁹ Financial Institution Regulatory Authority (FINRA), “[2019 Risk Monitoring and Examination Priorities Letter](#),” accessed October 13, 2020.

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