Insider Trading & Market Manipulation Literature Watch

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Each quarter, this newsletter summarizes newly published literature in the areas of Insider Trading and Market Manipulation. The authors' own abstracts are included below and are unedited. Links to the full paper are provided. The inclusion of an article in this newsletter does not signify that CRA or any of its experts agree or disagree with the content or conclusions therein.

Insider Trading

What Were They Thinking? State of Mind Puzzles in Insider Trading

Insider trading law is famously incoherent, the well-recognized product of its piecemeal creation by the judiciary rather than Congress or (with exceptions) SEC rulemaking. Asking what the insider or tippee was thinking is both a doctrinal inquiry and an expression of exasperation aimed at those whose trading doesn't seem worth the risk. This essay seeks to situate state of mind questions as they address both reasons for asking, and to show that the case law on the subject is even more puzzling than generally thought.

Langevoort, Donald C., What Were They Thinking? State of Mind Puzzles in Insider Trading (March 23, 2023). Available at SSRN: **https://ssrn.com/abstract=4398154 or http://dx.doi.org/10.2139/ssrn.4398154**

Does Social Capital Mitigate Managerial Self-Dealing? Evidence from Insider Trading

In this study, we examine whether the social capital surrounding the firm's corporate headquarters mitigates managerial self-dealing in the form of opportunistic insider trading. We find strong evidence that the level of social capital in the region surrounding the firm's headquarters is negatively and significantly associated with insider trading profitability. We also find that the negative association between social capital and insider trading profitability is more pronounced when governance is weaker and corporate opacity is higher, instances where insiders have greater opportunities to trade on their private information. Further analyses on the potential mechanisms suggest that the negative association is stronger when the firm's social networks are denser and when the civic norms in the region are stronger. Overall, our paper contributes to the growing social capital literature in accounting and finance by providing direct empirical evidence that social capital mitigates managerial self-serving behavior in the form of opportunistic insider trading.

Chung, Sung Gon and Lee, Jimmy and Park, Sang Hyun, Does Social Capital Mitigate Managerial Self-Dealing? Evidence from Insider Trading (November 21, 2022). Available at SSRN: **https://ssrn.com/abstract=4382532** or **http://dx.doi.org/10.2139/ssrn.4382532**

Disaster Response: The COVID-19 Pandemic and Insider Trading Around the World

This paper investigates how corporate insiders respond to the initial COVID-19 outbreaks. Using comprehensive insider transaction data from 25 countries, we document a consistent pattern of insider selling during the month after the first COVID-19 case is confirmed in a given country. Insider selling during these disease outbreaks is less pronounced in countries with higher information disclosure requirements, higher public enforcement index, a more efficient judiciary system, and stronger investor protection. Furthermore, cultural differences and the stringency levels of government responses to the COVID-19 outbreaks help moderate insider panic selling when health disasters strike. The findings suggest that a transparent, reliable business system contributes to rebuilding investor trust and corporate resilience during crises.

Hoang, Khanh and Hoang, Khanh and Nguyen, Cuong and Nguyen, Harvey and Vo, Lai Van, Disaster Response: The COVID-19 Pandemic and Insider Trading Around the World (January 31, 2023). Forthcoming in Global Finance Journal, Available at SSRN**: https://ssrn.com/abstract=4343529** or **http://dx.doi.org/10.2139/ssrn.4343529**

Does Common Ownership Constrain Managerial Rent Extraction? Evidence from Insider Trading Profitability

This study identifies a new economic benefit of common institutional ownership, which refers to the increasingly contentious phenomenon of U.S. firms sharing stockholders with their industry competitors. We find a significantly negative relation between common ownership and insider trading profitability. The disciplinary effect of common ownership on opportunistic insider trading is particularly evident when the information effects of common ownership are greater, when common owners are more likely to benefit from positive governance externalities, and in the subset of trades made by opportunistic insiders. Using the exogenous variations in common ownership induced by financial institution mergers, we conduct a difference-in-differences analysis and find consistent results. We also provide evidence that common owners encourage firms to impose ex-ante restrictions on insider trading and take ex-post actions to discipline opportunistic insiders by voting against management. Overall, our findings suggest that common institutional shareholders have information advantages, governance incentives, and effective means to constrain opportunistic insider trading.

Chen, Shenglan and Ma, Hui and Wu, Qiang and Zhang, Hao, Does Common Ownership Constrain Managerial Rent Extraction? Evidence from Insider Trading Profitability (January 31, 2023). Journal of Corporate Finance, Forthcoming, Available at SSRN: **https://ssrn.com/abstract=4371572** or **http://dx.doi.org/10.2139/ssrn.4371572**

Informed Trading Competition and The Post-Earnings-Announcement Drift

The Post-Earnings Announcement Drift (PEAD), is a prevailing anomaly in stock markets. In this paper, we study the effect of competition for trading between insiders and short sellers on the PEAD. Using a sample of U.S. stocks from 2006 to 2017, we show that when both insiders and

short sellers agree and trade the same stocks shortly after the publication of earnings, the PEAD reduces significantly more than at times when they do not. This attenuating effect is also higher for short sales than insider sales as the latter are usually made for liquidity or diversification. Moreover, the reduction in the PEAD is concentrated in firms with greater information uncertainty and in the trades made by a firms' CEOs and/or CFOs rather than other executives or non-executive directors. Overall, this paper sheds light on the important role of competition for trading in reducing information asymmetries after earnings announcements.

Contreras, Harold, Informed Trading Competition and The Post-Earnings-Announcement Drift. Available at SSRN: **https://ssrn.com/abstract=4359890** or **http://dx.doi.org/10.2139/ssrn.4359890**

Profiting from Rival Firms' Cyberattacks: Evidence from Informed Trading by Insiders with Social Ties

We examine a new attenuated type of informed trading in which insiders exploit the private information obtained via their ties to rival firms' insiders. We find that insiders earn abnormal profits by trading their firms' stocks before the disclosure of rivals' cyberattacks, particularly when their firms and rivals are exposed to higher cyber risk. Social networks formed through nonworkplace and nonboard ties are the main sources of trading profits. Insiders earn higher profits as rivals' litigation risk and the information asymmetry of rivals and their firms increase, but they do not after the SEC's 2011 guidance on cybersecurity risk disclosure.

Kang, Jun-Koo and Kim, Jungmin and Si, Fangbo, Profiting from Rival Firms' Cyberattacks: Evidence from Informed Trading by Insiders with Social Ties (February 6, 2023). Nanyang Business School Research Paper No. 23-04, Available at SSRN: **https://ssrn.com/abstract=4349714** or **http://dx.doi.org/10.2139/ssrn.4349714**

Blow the Whistle!: How the SEC Whistleblower Program Will Prevent Congressional Insider Trading

In 2012, Congress passed the Stop Trading on Congressional Knowledge Act in hopes that it would prevent members of Congress from trading financial securities based on sensitive information entrusted to their governmental positions. Nonetheless, as COVID-19 revealed, the legislation does not work, and many members of Congress continue to benefit financially from congressional knowledge. Under pressure from the media and public, Congress has since proposed new legislation requiring members to place their investments into a blind trust. However, as this Article will reveal, blind trusts are not exactly "blind" and the legislation appears to contain many loopholes. Moreover, there is certainly the concern that United States Representatives are not thrilled at the idea of making more rules themselves.

The current and proposed legislation does not prevent congressional insider trading. Therefore, implementing the SEC whistleblower program will allow the SEC, an independent agency, to prosecute congressional insiders and prevent insider trading within Congress.

First, this Article analyzes congressional insider trading before and after the adoption of the STOCK Act and shows that the issue has persisted despite its passage. Second, the discussion will reveal the SEC whistleblower program's strengths and weaknesses and persuade readers of

the factors that will make the program successful within Congress. The third part will break down the STOCK Act and the proposed Ban Congressional Trading Act and reveal why these are not viable options to prevent congressional insider trading. Finally, this Article will discuss the public policy rationale behind implementing the SEC whistleblower program, highlighting the public's portrayal of Congress and how the SEC being an independent agency, will increase accountability amongst members of Congress.

Stewart, Pryce, Blow the Whistle!: How the SEC Whistleblower Program Will Prevent Congressional Insider Trading (February 2, 2023). Available at SSRN: **https://ssrn.com/abstract=4346164** or **http://dx.doi.org/10.2139/ssrn.4346164**

Using ETFs to Conceal Insider Trading

We show that exchange traded funds (ETFs) are used in a new form of insider trading known as "shadow trading." Our evidence suggests that some traders in possession of material non-public information about upcoming M&A announcements trade in ETFs that contain the target stock, rather than trading the underlying company shares, thereby concealing their insider trading. Using bootstrap techniques to identify abnormal trading in treatment and control samples, we find significant levels of shadow trading in 3-6% of same-industry ETFs prior to M&A announcements, equating to at least $212 million of such trading per annum. Our findings suggest insider trading is more pervasive than just the "direct" forms that have been the focus of research and enforcement to date.

Eglīte, Elza and Štaermans, Dans and Patel, Vinay and Putnins, Talis J., Using ETFs to Conceal Insider Trading (January 26, 2023). Available at SSRN: **https://ssrn.com/abstract=4343579** or **http://dx.doi.org/10.2139/ssrn.4343579**

Corporate Insiders' Exploitation of Investors' Anchoring Bias at the 52-week High and Low

This study analyzes information production and trading behavior of banks with lending relationships. We combine trade-by-trade supervisory data and credit-registry data to examine banks' proprietary trading in borrower stocks around a large number of corporate events. We find that relationship banks build up positive (negative) trading positions in the two weeks before events with positive (negative) news, even when these events are unscheduled, and unwind positions shortly after the event. This trading pattern is more pronounced in situations when banks are likely to possess private information about their borrowers, and cannot be explained by specialized expertise in certain industries or certain firms. The results suggest that banks' lending relationships inform their trading and underscore the potential for conflicts of interest in universal banking, which have been a prominent concern in the regulatory debate for a long time. Our analysis illustrates how combining large data sets can uncover unusual trading patterns and enhance the supervision of financial institutions.

Haselmann, Rainer F. H. and Leuz, Christian and Schreiber, Sebastian, Know Your Customer: Informed Trading by Banks (2022). Center for Financial Studies Working Paper No. 705, 2023, Available at SSRN: **https://ssrn.com/abstract=4365175** or **http://dx.doi.org/10.2139/ssrn.4365175**

Know Your Customer: Informed Trading by Banks

This study analyzes information production and trading behavior of banks with lending relationships. We combine trade-by-trade supervisory data and credit-registry data to examine banks' proprietary trading in borrower stocks around a large number of corporate events. We find that relationship banks build up positive (negative) trading positions in the two weeks before events with positive (negative) news, even when these events are unscheduled, and unwind positions shortly after the event. This trading pattern is more pronounced in situations when banks are likely to possess private information about their borrowers, and cannot be explained by specialized expertise in certain industries or certain firms. The results suggest that banks' lending relationships inform their trading and underscore the potential for conflicts of interest in universal banking, which have been a prominent concern in the regulatory debate for a long time. Our analysis illustrates how combining large data sets can uncover unusual trading patterns and enhance the supervision of financial institutions.

Haselmann, Rainer F. H. and Leuz, Christian and Schreiber, Sebastian, Know Your Customer: Informed Trading by Banks (2022). Center for Financial Studies Working Paper No. 705, 2023, Available at SSRN: **https://ssrn.com/abstract=4365175** or **http://dx.doi.org/10.2139/ssrn.4365175**

A machine learning attack on illegal trading

We design an adaptive framework for the detection of illegal trading behavior. Its key component is an extension of a pattern recognition tool, originating from the field of signal processing and adapted to modern electronic systems of securities trading. The new method combines the flexibility of dynamic time warping with contemporary approaches from extreme value theory to explore large-scale transaction data and accurately identify illegal trading patterns. Importantly, our method does not need access to any confirmed illegal transactions for training. We use a high-frequency order book dataset provided by an international investment firm to show that the method achieves remarkable improvements over alternative approaches in the identification of suspected illegal insider trading cases.

Robert James, Henry Leung, Artem Prokhorov, A machine learning attack on illegal trading, Journal of Banking & Finance, Volume 148, 2023, 106735, ISSN 0378-4266, **https://doi.org/10.1016/j.jbankfin.2022.106735**. (**https://www.sciencedirect.com/science/article/pii/S0378426622003156**)

Market Manipulation

Does Noise Trading Affect Stock Liquidity? Empirical Evidence from China

This paper examines the impact of noise trading on stock liquidity in China. We construct a theoretical model including noise traders, rational traders, and insiders, and test the model using transaction data on individual stocks in the CSI-300 (China-Shanghai-Shenzhen-300-Stock Index) in 2020. We find that noise trading has a negative effect on stock liquidity. As evidenced by the transmission mechanism test, noise trading lowers stock liquidity by increasing stock price volatility. Furthermore, when there is a higher level of insider trading, noise trading has a greater

negative impact on stock liquidity. Dividends, however, reduce noise trading, thereby boosting stock liquidity.

Li, Rui and Wang, Jin and Song, Lujie and Chen, Chunchun, Does Noise Trading Affect Stock Liquidity? Empirical Evidence from China. Available at SSRN: **https://ssrn.com/abstract=4360079** or **http://dx.doi.org/10.2139/ssrn.4360079**

Is Market Manipulation a Catalyst for Herding Effects_ – Based on Evolutionary Game Theory

Market manipulation and herding effects have become common occurrences that greatly affect the stability of Chinese financial markets. While previous studies suggest that institutional manipulation requires an irrational atmosphere of blind following, little research has explored whether institutional manipulation intentionally induces herding effects among retail investors. This paper examines the impact of market manipulation on herding effects through an evolutionary game theory model that incorporates the behavioral characteristics of institutional and retail investors under information asymmetry. Our analysis shows that institutional investors with superior information who prefer market manipulation strategies can induce risk preference among retail investors to move in the same direction, resulting in a lasting effect. Our research offers important insights into the dynamics of financial markets and can inform policies aimed at reducing risks associated with abnormal fluctuations and promoting market stability.

Huang, Hongyi and SUN, Youfa and Liu, Caiyan, Is Market Manipulation a Catalyst for Herding Effects_ – Based on Evolutionary Game Theory. Available at SSRN: **https://ssrn.com/abstract=4405065** or **http://dx.doi.org/10.2139/ssrn.4405065**

The Echo Chamber Effect Resounds on Financial Markets: A Social Media Alert System for Meme Stocks

The short squeeze of Gamestop (GME) has revealed to the world how retail investors, pooling through social media, can severely impact financial markets. In this paper, we devise an early warning signal to detect suspicious users' social network activity, which might affect the financial market stability. We apply our approach to Reddit data, selecting both meme and non-meme stocks as case studies. The alert system is structured in two stages; the first is based on extraordinary activity on the social network, while the second aims at identifying whether the movement seeks to coordinate the users to a bulk action. We run an event study analysis to see the reaction of the financial markets when the alert system catches social network turmoil.

Gianstefani, Ilaria and Longo, Luigi and Riccaboni, Massimo, The Echo Chamber Effect Resounds on Financial Markets: A Social Media Alert System for Meme Stocks. Available at SSRN: **https://ssrn.com/abstract=4397797** or **http://dx.doi.org/10.2139/ssrn.4397797**

Who Falls Prey to the Wolf of Wall Street? Investor Participation in Market Manipulation

Price distortions created by so-called "pump-and-dump" schemes are well known, but relatively little is known about the investors in these frauds. By examining 470 "pump-and-dump" schemes using a large data set of trading records for over 110,000 individual investors from a major German bank, we first provide comprehensive evidence on the participation rate, magnitude of the investments, the

losses, and the characteristics of the individuals who invest in such schemes. Participation is quite common with nearly 8% of active retail investors participating in at least one “pump-and-dump” losing on average nearly 30%. Next, we identify several distinct types among participating investors, some of which (i.e., day trader) should not be viewed as falling prey to the schemes. Recognizing this heterogeneity is key when designing investor protections because we find investor types respond differently to market manipulation. We also show that portfolio composition and past trading behavior better explain tout participation than demographics. Lastly, we document longer-lasting effects on participating investors that go beyond the immediate financial losses.

Leuz, Christian and Meyer, Steffen and Muhn, Maximilian and Soltes, Eugene F. and Hackethal, Andreas, Who Falls Prey to the Wolf of Wall Street? Investor Participation in Market Manipulation (2022). Center for Financial Studies Working Paper No. 704, 2023, Available at SSRN: **https://ssrn.com/abstract=4365160** or **http://dx.doi.org/10.2139/ssrn.4365160**

Power of Keyboard: How Disagreed Voices from Social Media Impact on Mutual Funds Manipulation

We theoretically and empirically explore the effect of disagreed voices (dissenters) in social media on mutual fund manipulation. We first build a simple theoretical model to show that the reception rate of unsophisticated investors on the information of dissenters is important for the mutual fund manipulation. We also provide empirical evidences that the higher reception rate, the lesser fund inflows that restrains manager from performance manipulation. Based on the theoretical model, we also construct a market manipulation index, which has regulatory applications in practice.

Ren, Ziwei and Feng, Xu and An, Yahui and Zhang, Wei, Power of Keyboard: How Disagreed Voices from Social Media Impact on Mutual Funds Manipulation (February 18, 2023). Available at SSRN: **https://ssrn.com/abstract=4363014** or **http://dx.doi.org/10.2139/ssrn.4363014**

The Algorithmic Future of EU Market Conduct Supervision: A Preliminary Check

Technological innovation, such as advancements in Artificial Intelligence (AI) within the ramification of algorithmic trading, has been shaping the organisation and operation of global capital markets. Whereas AI can contribute to more efficient markets, concerns are growing about its potential to undermine fair and orderly trading. Specifically, powered by Machine Learning (ML), increasingly autonomous, capable and sometimes black-box trading systems can expose markets to unprecedented risks of rampant and subtle forms of market manipulation that are difficult to detect and prosecute. By contrast, technological innovation can also assist financial regulators in mitigating some of these risks. In particular, market conduct supervisors can benefit from an incremental use of supervisory technology (SupTech), such as AI-based surveillance systems and tools, to enhance their ability to cope with algorithmic market manipulation. Therefore, in envisioning a paradigm shift in market conduct supervision towards an increased reliance on AI/ML methods and techniques, this chapter examines ongoing technological trends and addresses some of the legal and institutional challenges that EU policymakers and regulators will have to face to safeguard public confidence in the integrity of EU capital markets.

Azzutti, Alessio, The Algorithmic Future of EU Market Conduct Supervision: A Preliminary Check (December 31, 2022). Lukas Böffel & Jonas Schürger (eds.), Digitalisation, Sustainability, and the Banking and Capital

Markets Union: Thoughts on Current Issues of EU Financial Regulation (Palgrave Macmillan 2023), Available at SSRN: **https://ssrn.com/abstract=4329063**

Price Destabilizing Speculation: The Role of Strategic Limit Orders

Using a two-period model of a commodity market with a large number of atomistic consumers and two strategic sellers, we show that a speculator with access to storage can lower the market price while buying and raise the price while selling by clever use of limit, stop-loss, and market orders. The speculator profits from it. This creates price volatility despite no demand or supply uncertainty, and all market participants act rationally. Prices are more volatile when the speculator has access to free disposal. Such speculative activity makes the strategic sellers worse off and consumers better off. Our results are robust to introducing demand uncertainty, having more than one large speculator, and more than two strategic sellers. When there are multiple strategic sellers consumers can be worse off.

Banerjee, Suman and Jagannathan, Ravi and Wang, Kai, Price Destabilizing Speculation: The Role of Strategic Limit Orders (January 10, 2023). Available at SSRN: **https://ssrn.com/abstract=4322029**

Price Impact of Order Revisions: Evidence from Order Spoofing

We investigate the price impact of the well-known but empirically unsettled order spoofing strategy. We use a comprehensive database that includes complete orders of index futures and options submitted by every market participant and a unique linkage of order execution to overcome the empirical hurdles of detecting order flows and order executions. The results show that the upcoming transaction price increases (decreases) after revisions of aggressive limit sell (buy) orders. The opposite-side limit orders are executed at better prices immediately after revisions of aggressive limit orders, which is consistent with the spoofing tactic. We also use the Dynamic Price Banding Mechanism as a quasi-natural experiment to address a potential endogeneity issue. Overall, we find that the price impact is more pronounced during daily open and close intervals, and periods with large order revisions, wide bid-ask spreads, and shallow quote depths. This effect is also more pronounced for out-of-the money options.

Chen, Jianqiang and Hsieh, Pei-Fang and Yang, J. Jimmy, Price Impact of Order Revisions: Evidence from Order Spoofing. Available at SSRN: **https://ssrn.com/abstract=4390551** or **http://dx.doi.org/10.2139/ssrn.4390551**

Solution Approach for Detection of Stock Price Manipulation by Market Operators

Nowadays, many so-called stock analyst people are now sending tips via SMS, e-mails, and social media giving targets to stocks that are of very bad quality. In market, these are called pump and dump schemes, where “operators” or “manipulators” increase the price of a stock by various strategies. The increase in price attracts retail investor to purchase that stock. When the stock price crosses the required targets, set by the manipulators who sell it out and public is left holding stock whose price gets decreased suddenly. In this paper, we present a solution approach which can be implemented to detect such manipulation of stock price and avoid such malicious activity. In our solution approach, we suggest ideas, criteria which may be used to build a model based on data analytics, machine learning which can return us the list of stocks that is expected to be

manipulated by the operator. This paper also proposes the data analytic models, machine learning models which may be used while implementing the solution approach suggested in this paper.

Kakde, Y., Chavan, G., Sah, B., Sen, A. (2023). Solution Approach for Detection of Stock Price Manipulation by Market Operators. In: Ogudo, K.A., Saha, S.K., Bhattacharyya, D. (eds) Smart Technologies in Data Science and Communication. Lecture Notes in Networks and Systems, vol 558. Springer, Singapore. **https://doi.org/10.1007/978-981-19-6880-8_30**

Public information manipulation in the financial market

Which factor might shape investor's sentiment in the financial market? We answer this question by introducing information manipulation into the micro-structure of a financial market. In our model, an insider inflates the fundamental to boost the equilibrium market price. Because the manipulation cost is private information, the investors treat the manipulation as a noisy signal, or rather, sentiment. The manipulation turns out to be a linear combination of fundamental and manipulation cost. The equilibrium level of manipulation decreases with market supply elasticity and transparency. Overall, our theory suggests insider's manipulation as a possible source of market sentiment.

Bo Wang, Suli Zheng, Public information manipulation in the financial market, Finance Research Letters, Volume 51, 2023, 103463, ISSN 1544-6123, **https://doi.org/10.1016/j.frl.2022.103463**. (**https://www.sciencedirect.com/science/article/pii/S1544612322006390**)

Cross-market spoofing

Since 2012, regulatory investigations have revealed widespread manipulation and collusive practices among banks active in over-the-counter (OTC) markets. These discoveries have resulted in fines and settlements amounting to billions of US dollars, criminal proceedings and stricter regulation worldwide. However, recent legal cases and regulatory reports indicate that authorities have stepped up their efforts to crack down on so-called "cross-market spoofing". The manipulative tactic involves a combination of a genuine order in one market and a spoof order in another, which is notoriously difficult to detect. In this paper, we use a high-frequency data set of limit order book snapshots from the foreign exchange (FX) spot market to develop and test a methodology to assess the feasibility, and hence potential prevalence, of cross-market spoofing. Our findings show that predictable reactions follow potential single-market spoofs that a market manipulator may exploit. Crucially, we also find that predictability may be observed in closely related markets. In particular, we discover that EUR/JPY offers a reliable pathway for a manipulator to exploit via spoof orders at deeper levels in the EUR/USD or USD/JPY limit order books. The findings suggest that a manipulator is more likely to submit a spoof order in a liquid market and a resting order in a less liquid but closely related market, rather than vice versa. Moreover, cross-market spoof orders are more likely to be found in markets that act as hedging markets.

Alexis Stenfors, Mehrdaad Doraghi, Cristina Soviany, Masayuki Susai, Kaveh Vakili, Cross-market spoofing, Journal of International Financial Markets, Institutions and Money, Volume 83, 2023, 101735, ISSN 1042-4431, **https://doi.org/10.1016/j.intfin.2023.101735.** (**https://www.sciencedirect.com/science/article/pii/S1042443123000033**)

Profitability and herding of trade-based pump-and-dump manipulation

We use the Korea Stock Exchange's complete intraday order and trade data in a dataset that identifies individual accounts to examine whether trade-based pump-and-dump manipulators can trade profitably and whether other investors herd after the manipulation. The results show that other investors place more buy orders on stocks with higher manipulative buying volume and that more new investors buy such stocks. We also find that the trade-based pump-and-dump manipulation is profitable on average, both gross and net of transaction costs. Manipulators who have higher trading volume, more experience with manipulation, and less frequent transactions are likely to achieve larger profits. We also find that this type of manipulation is far more pervasive in the emerging market.

Eun Jung Lee, Yu Kyung Lee & Ryumi Kim (2023) Profitability and herding of trade-based pump-and-dump manipulation, Applied Economics, DOI: **10.1080/00036846.2023.2182405**

Detecting Pump&Dump Stock Market Manipulation from Online Forums

The intersection of social media, low-cost trading platforms, and naive investors has created an ideal situation for information-based market manipulations, especially pump&dumps. Manipulators accumulate small-cap stocks, disseminate false information on social media to inflate their price, and sell at the peak. We collect a dataset of stocks whose price and volume profiles have the characteristic shape of a pump&dump, and social media posts for those same stocks that match the timing of the initial price rises. From these we build predictive models for pump&dump events based on the language used in the social media posts.

There are multiple difficulties: not every post will cause the intended market reaction, some pump&dump events may be triggered by posts in other forums, and there may be accidental confluences of post timing and market movements. Nevertheless, our best model achieves a prediction accuracy of 85% and an F1-score of 62%. Such a tool can provide early warning to investors and regulators that a pump&dump may be underway.

Nam, D., & Skillicorn, D. B. (2023). Detecting Pump&Dump Stock Market Manipulation from Online Forums. **https://arxiv.org/abs/2301.11403**.

Does high-frequency trading actually improve market liquidity? A comparative study for selected models and measures

The increasing volume of messages sent to the exchange by algorithmic traders stimulates a fierce debate among academics and practitioners on the impacts of high-frequency trading (HFT) on capital markets. By comparing a variety of regression models that associate various measures of market liquidity with measures of high-frequency activity on the same dataset, we find that for some models the increase in high-frequency activity improves market liquidity, but for others, we get the opposite effect. We indicate that this ambiguity does not depend only on the stock market or the data period, but also on the used HFT measure: the increase of high-frequency orders leads to lower market liquidity whereas the increase in high-frequency trades improves liquidity. We hypothesize that the observed decrease in market liquidity associated with an increasing level of high-frequency orders is caused by a rise in quote volatility.

Renata Karkowska, Andrzej Palczewski, Does high-frequency trading actually improve market liquidity? A comparative study for selected models and measures, Research in International Business and Finance, Volume 64, 2023, 101872, ISSN 0275-5319**, https://doi.org/10.1016/j.ribaf.2022.101872**. (**https://www.sciencedirect.com/science/article/pii/S0275531922002586**)

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