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GameStop or Game Just Started? Leveling the Playing Field for Social Media Meme Investors to Rebuild the Public's Trust

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Abstract: Against the GameStop frenzy in 2021, this article defines meme investors as a new group of investors in financial markets while demonstrating meme investors' regulatory and social implications. By comparing meme investors with traditional investors under the MiFID II regime, this article finds that meme investors are significantly less wealthy than traditional investors, trade via digital trading platforms, and rely on social media information for investment decision making. This article argues that the emergence of meme investors is an expression of the public's desire for financial inclusion and their frustration with traditional financial institutions. Therefore, properly engaging with meme investors is crucial for rebuilding the public's trust towards regulators. After illustrating meme investors' exposure to default risks, legal uncertainty, and online misinformation, this article calls for regulators to engage with social media meme investors and improve financial literacy among the public.

Keywords: social media meme investors; financial inclusion; default risks; financial literacy; systemic risks; public trust

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1. Introduction

GameStop is a US gaming retailer which was expected to go bankrupt in late 2020 due to the overall deteriorating environment in the high street retail gaming industry and the COVID-19 Lockdown (Klein 2021). As with Lehman Brothers' final days, hedge funds shorted GameStop, hoping to profit from the bankruptcy. However, the story turned in an unexpected direction: the short was countered by a new group of investors, who were mainly active members of the social media group wallstreetbets on Reddit.com.

According to data from the New York Stock Exchange (GameStop Corporation GME n.d.), on 28 January 2021, social media users were able to push GameStop's share price to $120 while GameStop's share price at the end of 2020 was merely over $4. The drastic price change forced hedge funds to close out their short positions. However, as the frenzy later faded GameStop's share price dropped back to less than $20 on 2 February 2021. The substantial price change then left the small guys in financial distress. Therefore, the GameStop frenzy started as a 'David beats Goliath' story, yet ended up making wall street even richer (Research Note: Cryptoasset Consumer Research 2021). Against this backdrop, skeptics labeled the frenzy as 'the revolution that wasn't' (Jakab 2022).

This article argues that just because the small guys lost again does not mean that they should be overlooked. According to Hasso et al. (2021), participants in the GameStop frenzy were also crypto traders, high-volatility traders, and short sellers. Similarly, Libich and Lenten (2021) also confirmed that investors in the GameStop frenzy are the same group of investors as digital platform crypto derivatives traders. In other words, the GameStop frenzy was an early warning against the rise of a new group of investors across wider financial segments, with whom regulators are not used to engaging (Research Note: Cryptoasset Consumer Research 2021).

Through a socio-legal lens, this article defines the new investors as meme investors, sheds light on meme investors' regulatory implications, and explores means for regulators

to engage with meme investors. Before defining meme investors, it is necessary to first understand what memes are. According to the Oxford English Dictionary, the concept of meme was created in the field of biology, which refers to a 'cultural element or behavioural trait whose transmission and consequent persistence in a population, as analogous to the inheritance of a gene.' Overtime, memes have become phenomenal on social media popular culture. Internet memes are mainly images, videos, and piece of texts which are copied and spread rapidly by internet users with slight variations. (Jordan 2014) In other words, fragmented online information, like a gene, that passes among social media users.

Social media has been a crucial marketing field in Web 2.0 for brands to engage with the public (Tuten 2020). Scott (2017) even argued that Donald Trump's engagement with Twitter was a successful social media marketing strategy, selling himself to the US voters in 2016. Among the complex social media ecosystem, recent research starts to focus on memes and their transmissive feature as an increasingly important marketing tool (Chuah et al. 2020; Vasile et al. 2021). Through empirical study, Yang (2022) found that humorous memes attract social media users' attention, which then encourage users to share the contents and engage with the products. Appendix A lists a few GameStop-related memes. With the memes circulating on social media, GameStop's daily trading volume surged from less than 30 million on 12 January 2021 to over 700 million on 26 January 2021. Subsequently, the share price jumped from around $4 in December 2020 to over $120 on 28 January 2021.

In addition to the humorous appearance of memes, de Deus et al. (2022) also argued that social media users share memes and respond to market strategies because memes reveal their collective ideologies. By analyzing memes and meme investors' online comments, the article argues that meme investors in GameStop expressed a frustration towards the traditional financial market and a desire for shared prosperity. Therefore, properly engaging with meme investors is crucial for regulators to regain the public's trust.

Section 3 further argues that the reliance on social media information is caused by meme investors' inability to access traditional financial intermediaries for information. Based on these investors' reliance on fragmented social media information (memes), this article labels this new group of investors as meme investors. Against meme investors' excessive exposure to default risks and lack of investment knowledge, regulators should improve financial literacy in the UK and provide meme investors with more legal certainty.

In the remaining part of the article, Section 2 demonstrates the socio-legal approach the article used in defining meme investors; Section 3 highlights the features of meme investors; Section 4 discusses how regulators should approach meme investors to regain public trust and reduce systemic risks in the UK financial market; Section 5 concludes.

2. Methods

This article is a qualitative socio-legal analysis, defining meme investors and their regulatory implications. Socio-legal study is a legal scholarship focusing on the relationship between law and society (Sarat and Kearns 1995), which provides a legal rationale for regulators and researchers to properly engage with meme investors and regain public trust.

As will be unveiled in Section 3, meme investors' regulatory implications are overlooked by regulators and under studied by researchers. In January 2021, the Financial Conduct Authority (FCA) warned meme investors that 'buying shares in volatile markets is risky and you may quickly lose money. These losses are unlikely to be covered by the Financial Services Compensation Scheme'. However, the FCA did not give any instruction as to what meme investors could do to mitigate their losses. As Scalia and Vacca (1999) argued, in a less transparent and less regulated market, competent traders actively entered transactions to acquire more information, while incapable ones would soon go out of business. That is to say, the market will eliminate incapable meme investors and achieve efficiency automatically; there is no need for the FCA to become further involved. This laissez-faire approach is related to the Law and Economics tradition in the UK financial regulatory system (Woll 2013; McWilliams 2010). This article has no intention to dismiss

the connection between law and economics in the UK financial market, but it challenges neo-liberalism as the underlying economic theory.

As will be illustrated in Section 3.1, traditional financial markets are dominated by institutional investors, whereas the public access investment largely as pension fund contributors and bank depositors. This agency approach fits in the homo economicus presumption of neo-liberalism, as financial institutions (pension funds and banks) have more knowledge to make rational decisions than ordinary individuals (Etzioni 2010). However, with UK pension funds suffering another near bankruptcy in September/October 2022 due to speculative derivatives trading (Stephen Sir Jon Cunliffe 2022), it is questionable how convincing the expectation actually is. More importantly, under this agency approach, the public's moral sentiments are excluded from decision-making. The unfairness of the relationship is described as 'other people's money and how banks use it' by Judge Brandeis (1914).

This article argues that the emergence of meme investors represents an alternative to this traditional bank-customer relationship. Therefore, even though meme investors' behavior can be highly speculative, the article believes that pressure from alternative investment channels could force traditional financial institutions to treat the public better. Subsequently, the article uses behavior economics to justify meme investors' including their moral sentiments in investment decision making, and social economics as the ground for regulators to step in and aid meme investors.

As Richard Thaler (2015) pointed out, expecting people to simply remove all emotion and bias from decision-making is both unreasonable and fails to match the reality we lived in. As will be demonstrated in Section 3, during the GameStop frenzy, meme investors involved their moral sentiments in investing their own money. This phenomenon is a behavior economics related price factor that merits studying. Thus, regulators should focus on properly engaging with meme investors instead of simply restricting their access to investment.

Furthermore, social economists like Banerjee and Duflo (2019) also emphasized that people's wellbeing is strongly associated with emotional connections like the sense of respect and community, which goes beyond pure economic gains. Regulators need to understand and respect this deep human desire for dignity to regain the public's trust. This article believes that the emergence of meme investors echoes the public's desire for financial inclusion. Proper regulatory intervention with meme investors is both necessary for financial stability and social stability. On the one hand, in addition to the economic suffering, failures in the financial market divide society and damage people's wellbeing (Luthra 2021). Thus, allowing meme investors to fail will enhance the public's distrust towards regulators and the feeling of being left behind in society. On the other hand, excessive social inequality is a systemic risk that causes financial crises (Rouch 2020; Robertson 2017; Krugman 2008). With the Pandemic and the Cost-of-Living Crisis pushing inequality to a dangerous level in the UK (Harari et al. 2022), regulators cannot risk meme investors' failure triggering another systemic failure.

Overall, these diverse economic theories provide a solid ground, within the Law and Economics tradition, for the UK financial regulators to step in, respect the public's moral sentiments, and level the playing field for meme investors.

3. Findings

By reviewing relevant literature, this section distinguishes meme investors from traditional investors. It argues that meme investors represent the public's desire for financial inclusion and allows the public to include their moral sentiments in investment decision-making. Yet, in the absence of proper legal protection, meme investors are disproportionately exposed to default risks in the financial market.

3.1. Meme Investors Are Significantly Less Weathly than Traditional Investors

When describing the new investors in the GameStop frenzy, the FCA switched between different terminologies including 'inexperienced investors', 'small-scale individual investors' and 'internet-based private investors' (Research Note: Cryptoasset Consumer Research 2021). These descriptions capture the key feature of meme investors: they are ordinary members of the public. This impression is consistent with the BBC's report (Plummer and Sherman 2021) investigating UK GameStop participants, ranging from an 18-year-old student from Warwick University to a 28-year-old engineer in London. This BBC report further emphasized that meme investors could invest as little as £30, which is significantly below the barrier to enter the traditional investment market. The following analysis illustrates how this socio-economic status distinguishes meme investors from traditional investors and challenges the existing regulatory framework.

3.1.1. Institutional Investors' Dominance in Traditional UK Financial Market

Take White Square Capital, the UK-based hedge fund shorting GameStop as an example. Hedge funds are financial intermediaries who collect large pools of money from institutional investors and wealthy individuals, and then adopt various trading strategies to invest on behalf of these members (Kaal and Oesterle 2017). Even though meme investors' short squeeze triggered wider price changes in the UK and US financial markets during the GameStop frenzy (Steward 2021), it is nevertheless a response to traditional investors' short selling. Thus, against the emergence of meme investors, regulators need to change the excessive risk-taking culture among traditional investors.

White Square Capital did not disclose any contact method on its public website, nor specify its membership requirements. However, Companies House's report suggests that two individuals each controlled between 25% and 50% of the capital. Based on White Capital's account in 2021, each of them contributed no less than £1 million in this single hedge fund. The UK financial market is dominated by financial institutions like hedge funds. This is because access to the traditional financial market is a privilege for institutional investors. For stock trading, access to the London Stock Exchange is exclusive for its members, to which only companies can apply (Join the world's most international trader network n.d.). Even though Article 37 of the European Market Infrastructure Regulation (EMIR) emphasizes open and non-discriminatory access to clearing in the derivatives market, small individual investors cannot meet the net capital requirement, nor do they have the ability to maintain a back desk for the central counterparties and have a suitable internal risk-management procedure in place. Thus, these key financial infrastructures are for large financial institutions. This financial intermediaries-centralized market structure fits neoliberalism's hypothesis of informationally rational investors, which excluded the public from decision-making in the UK financial market.

3.1.2. Wealthy Individual Can Access the Market as Retail Clients of Financial Institutions

Meanwhile, wealthy individuals can also participate in the traditional financial market as retail clients of financial institutions. In practice, meme investors are often referred to as retail investors (Committee on Financial Services U.S. 2021; Hasso et al. 2021; Klein 2021). The following paragraphs warn that this terminology risks undermining the fact that meme investors have no access to financial intermediaries for information and regulated channels, hence, downplaying meme investors' struggling.

Take the Royal Bank of Scotland (RBS) as an example. One of the RBS's services is providing financial advice to customers, which could mitigate the knowledge gap, hence, allowing individual investors to make informed rational decisions in the financial market. But this service is exclusively for customers with a minimum of £250,000 in savings and/or investments with the RBS, a total of £2 million or more in savings and/or investments, or an annual income of £500,000 or more. This high investment barrier indicates that meme investors are not retail clients. As will be discussed later, this also means that meme investors fall outside the MiFID II's protection, which is designed to protect voluntary,

unsophisticated investors against financial intermediaries' unfair exploitation (Busch 2017; Mensah 2017; Migliavacca 2020). The lack of regulatory intervention disproportionally exposes meme investors to excessive default risks, which will be discussed in Section 3.3.

It is important to note that both the EMIR and the MiFID II are parts of the post-2008 financial reforms which aim at increasing transparency and financial stability in global financial markets. Yet, meme investors distinguish themselves from traditional investors and fall outside the existing regulatory regimes. Against this backdrop, this article also highlights a need to revisit the notion of transparency in response to the public's growing involvement in investment. Instead of focusing narrowly on traditional investors' desire for market efficiency, transparency should also serve the public's desire for financial inclusion, and, as will be illustrated in Section 4, to achieve such a purpose regulators need to share their knowledge and reasoning with the public.

Nevertheless, Lin (2015) believed that investors exist everywhere, in every form: They reside in big cities and small towns, financiers and farmers, old retirees, and new workers. However, a closer look suggests that these small, unsophisticated, and new workers traditionally are not included in investment decision-making in the traditional market. Rather, people are more likely to be involved via pension funds, who collect money from workers and employers and invest. During the process, an individual pension fund contributor has little control over pension funds not to mention the hedge funds. Take the dispute between the University and College Union (UCU) and Universities Superannuation Scheme (USS) as an example. In this case, the pension fund, USS, claims to suffer heavy a heavy deficit in its recent investments and managements. As a result, USS has asked universities and individual lecturers to contribute more to the fund or risk pension cuts. Even though UCU has organized several strikes against the pension arrangement, there is little individual contributors can do to change the fund's decision.

Thus, under the traditional arrangement, people are not directly involved in the financial market. Subsequently, their moral sentiments were ignored by the market. Against this backdrop, the article perceives the emergence of meme investors as a rebellion against unfairly excluding the public from decision-making in the UK financial market.

3.2. Meme Investors Include Moral Sentiments in Investment Decision-Making

By studying meme investors' online posts during the GameStop frenzy, this subsection argues that unlike traditional investors, meme investors include their moral sentiments in making investment decisions. In this sense, the emergence of meme investors reflects behavioral economics' argument that investment decision making is not purely rational, but affected by various internal and external factors (Thaler 2015). The following examples show what meme investors want in their investments. It is important to note that these demands are posted via social media in a rather unofficial manner. Future researchers could conduct further quantitative studies in this field to help better understand meme investors' moral sentiments.

In a post concerning GameStop investors' right to 'smash' short sellers in reddit, r/wallstreetbets, one user commented that,

> *... maybe short sellers should just target actual shitty companies instead of a fuckin EV (electric vehicle) company or a medicare company or a space American dream company ... im not exactly gonna be throwing money at predatory lending companies or cigarettes or some shit*. (SEC Chair Gensler Defends Reddit, GameStop Investors' Right to 'Smash' Short Sellers n.d.)

That is to say, meme investors do not judge companies purely based on financial performance. Social values of the products are also considered. Similar concerns for social values can also be found in the London Capital and Finance mini bond mis-selling case, where meme investors were promised opportunities to support local businesses and the environment (Dame Elizabeth Gloster DBE 2020). In this sense, meme investors echo the call for Environmental, Social and Governance (ESG) reforms in the UK financial market

(Rouch 2020). Thus, providing proper financial literacy and legal protection for meme investors is a means for the UK financial regulators to support sustainable development.

Meanwhile, the GameStop frenzy was also reported as ordinary people saving jobs and companies against Wall Street (Plummer and Sherman 2021). In a post on reddit (GameStop founder Gary Kusin Said It Was an 'Honor' Retail Investors Targeted the Company: 'I Just Grabbed Some Popcorn' n.d.), the founder of GameStop, Gary Kusin, thanked the retail investors for saving the company. The most popular comment, with 11,400 likes, is 'I hope he sends Melvin (the hedge fund shorting GameStop) a Get Fucked card.' This comment contains a direct outrage towards the unfair concentration of wealth in banks in the aftermath of the Financial Crisis of 2008. The same public's outrage also led to the creation of crypto in 2009 (Wright 2019; Omarova 2020). This feeling could explain why the UK meme investors participated in the GameStop, even though the company does not operate in the UK, and why meme investors in the GameStop frenzy are also involved in the decentralized crypto market.

Hasso et al. (2021) argued that meme investors' distaste towards financial institutions could have a wider impact on financial market. This is because the financial market is a complex, interdependent web of contractual obligations, linking market participants to one another. By pushing financial institutions to liquidity, meme investors have the potential to trigger a systemic knockdown of the financial market. This concern is confirmed by Steward, who found an overall reduction in the value of net short positions in the UK derivatives market during the GameStop frenzy. Against this backdrop, Libich and Lenten (2021) warned that meme investors' distaste for short selling could trigger another systemic overvaluation of financial products.

It is undeniable that meme investors' involvement in the GameStop frenzy is highly speculative. However, meme investors' short-squeezing only mimics and responds to traditional investors' shorting. Thus, it is unfair to blame meme investors and exclude meme investors from trading, while traditional investors are still allowed to stay. As described by Tenev (BBC 2021), the co-founder of the digital trading platform Robinhood, exclusion enhances the feeling of being left behind among the public. Against this backdrop, Section 4 argues that to reduce meme-related systemic risks, regulators need to first ease traditional investors' excessive speculation.

To summarize the complex moral sentiments, the emergence of meme investors represents an unprecedented level of financial inclusion, where less wealthy members of the public can include their moral sentiments in investment decision making. This public involvement brings moral sentiments into investments decision making, which could help achieve ESG targets. Meme investors also express a strong frustration towards traditional investors' speculation. Regulators need to communicate with meme investors and respond to this emotion.

3.3. Meme Investors' Risks Exposure

Independence from traditional financial intermediaries also exposes meme investors to unfair exploitations. Take Robinhood, the digital trading platform through which meme investors participated in the GameStop frenzy, as an example. Robinhood claims that the price information disclosed on their website is from securities exchanges and markets, third party information providers, and other third parties that distribute or transmit Market Data. Robinhood does not disclose the identities of the market makers in its terms and conditions, but the Committee on Financial Services U.S. (2021) found that market markers manipulating retail prices and profiting from the conflict of interest through Robinhood during the GameStop frenzy.

As illustrated in Section 1, during the GameStop frenzy, the FCA warned that 'buying shares in volatile markets is risky and you may quickly lose money. These losses are unlikely to be covered by the Financial Services Compensation Scheme'. But the FCA did not give meme investors any instruction as to how to mitigate their losses. Section 1

argued that the laissez faire approach resulted from the neoliberalism and legal positivism tradition in the UK financial market.

It is interesting to note that meme investors are also involved in derivatives trading, which include both stock derivatives (like in the GameStop frenzy) and crypto derivatives. While the FCA did not give any specific guidance on meme investors' involvement with stock derivatives, the FCA (Research Note: Cryptoasset Consumer Research 2021) did ban financial intermediaries from selling crypto derivatives to retail clients. In addition to the general failure of the ban, this article pays extra attention to PayPal Bitcoin products, where the technical name, crypto derivatives, is not stated.

PayPal (Crypto with PayPal Is Here n.d.) advertises the service as 'Buy, Hold and Sell Bitcoin with Us'. This advertisement is misleading, as users do not hold any real Bitcoin under this contract. A more accurate expression would be that the user enters a Bitcoin forward contract with PayPal. The contract gives PayPal users the rights against PayPal. If a user invests £20 at the beginning of the contract, this money would be worth X% of one Bitcoin. When the user no longer wishes to hold, he/she can claim the monetary value of the X% of one Bitcoin from PayPal. Therefore, in addition to Bitcoin price changes, the user is also exposed to PayPal's default risk. Although PayPal disclosed detailed information in the user agreement (PayPal Cryptocurrency Terms and Conditions 2022), users need to have sufficient knowledge in finance and law to understand the nature of this transaction. Those without such knowledge (like meme investors) are highly likely to be misled by simplified advertising, hence, unknowingly exposed to the high counterparties default risks. This situation is consistent with Marinelli et al. (2017)'s finding that investors with low financial literacy are disproportionally exposed to default risk in financial markets. As will be further illustrated in Section 4, people from disadvantaged backgrounds are less likely to develop financial literacy in the UK. Thus, meme investors' exposure to default risks is a social inequality re-enforcing itself in the financial market. Against this backdrop, the article calls for improving financial literacy in the UK.

While the FCA emphasized that the regulator does not have a specific responsibility to ensure access to finance for all customers, this article argues that the FCA nevertheless has a duty to 'protect customers' in the UK financial market. As for what is a financial consumer, the FCA states that:

> *From bank accounts to mortgages, credit cards, loans, savings, pensions and investments, virtually every adult in the UK is a consumer of financial services. One of our objectives is to ensure an appropriate degree of protection for all these consumers.* (Protecting Consumers 2022)

Therefore, the FCA interprets the word consumer in quite a wide manner. It covers every adult in the UK, including both traditional investors and meme investors. In 2020, the FCA was forced to compensate investors for the London Capital and Finance (LCF)'s mini bond mis-sale (Research Note: Cryptoasset Consumer Research 2021). This case provides a precedent for meme investors to seek legal remedy as the investors in LCF are also: significantly less wealthy than traditional investors, have no access to regulated investment channels, and rely on social media information for decision making (Dame Elizabeth Gloster DBE 2020). Therefore, to avoid future liabilities, the FCA also needs to level the playing field for meme investors.

More importantly, since PayPal does not deliver any physical Bitcoin, the whole product could be in a naked short selling position. If PayPal expects the price of Bitcoin to drop in the following months, the company can capture a huge profit by selling the Bitcoin forward to users at the current price. In contrast, if the price of Bitcoin rises sharply in the future, PayPal can default. While this subsection emphasizes the default's impact on meme investors, it also recognizes that financial institutions' default in the crypto derivatives could have further knock-on effect, which is a systemic risk in the UK financial market (King et al. 2014). The knock-on effect exists because the cleared derivatives market treats defaulting member's position as a whole. Therefore, what happens in the crypto derivatives

market will not stay in the crypto derivatives market. In this hypothetical scenario, the UK CCPs could be caught unprepared against a meme-related systemic event.

It is important to emphasis that even though meme investors are involved in dangerous crypto derivatives trading, the product is created by traditional investors. Thus, to reduce meme-related systemic risk, regulators need to ease the excessive risk-taking culture among traditional financial institutions.

To conclude, meme investors are significantly less wealthy than traditional investors, and, hence, cannot access traditional financial intermediaries for information and investment channels. This independence from traditional financial intermediaries presents an unprecedented inclusion for meme investors to include their own morality in investment decision-making, but it also exposes meme investors to excessive default risks and the financial market to systemic risks.

4. Discussion

After demonstrating the features of meme investors, this section discusses the regulatory implications of meme investors. On the one hand, the emergence of meme investors represents an opportunity to ease the concentration of information, wealth, and power in financial intermediaries. Regulators should seize the change and ease social inequality. On the other hand, to aid meme investors, regulators need to improve financial literacy in the UK.

4.1. Social Media Meme Investors Have the Potential to Change the Power Dynamic between the Public and the Financial Intermedaries

While large in numbers, people are disorganized, easily distracted by other important issues, and have a short attention span (Cunha 2020). In contrast, the financial industry was a well-organized small group, focused solely and constantly on banking issues, with expertise and money for constant lobbying (Deakin et al. 2017). Due to the power imbalance, financial legislation and regulations were highly likely to be hijacked by banks.

Yet, in the GameStop frenzy, meme investors short squeezed financial institutions. Social media played a key role in keeping meme investors informed and unified during the process (Jarrow and Li 2021). As illustrated in Section 3.1.2, independence from traditional financial intermediaries also means meme investors cannot access traditional financial intermediaries for information and knowledge. Social media mitigates this gap by presenting a peer support system where meme investors can share and communicate their opinions. Meanwhile, this sharing also creates a sense of community, which keeps meme investors unified. Therefore, despite the speculative nature of the short squeezing strategy, social media meme investors represent an opportunity to ease the concentration of information, wealth and power in financial intermediaries.

Nevertheless, it is also true that some individuals will have a stronger influence over others. As Easterbrook and Fischel (1991) argued, information is costly, and the costs are borne in large part by investors. For those who are responsible for generating the information, the data needs to be recorded, organized, and maintained before being distributed. Traditionally, this role of producing information is carried out by financial institutions, and, in return, financial institutions charge clients for using the information. For meme investors, there also needs someone to initiate the process, to study and to inform the others. Due to the existence of this someone, Pedersen (2021) perceived meme investors as naïve and easy to manipulate. However, as Scharfstein and Stein (1990) recognized, herd behavior is not unheard of in the market. Mimicking behaviors implies a correlation with the others market participants, which suggests the decision is more likely to be correct. Thus, just because meme investors follow an initiator, does not mean meme investors are irrational.

Furthermore, having an initiator is just how information operates. There must be someone to start the conversation. Even though the initiator could profit more from the GameStop frenzy, they also invested time and energy communicating with other

meme investors. The profit should be justified. More importantly, this initiator finds a way to effectively communicate with small shareholders. Before social media, similar attempts were merely possible because of the lack of communication channels. Now, potential investors and existing small shareholders can and will use search engines and other platforms to acquire information. This is not to say regulators do not need to aid meme investors' knowledge gap. As will be emphasized in Section 4.2, financial regulators need to improve financial literacy in the UK against speculation.

Regulators should learn from the initiator in terms of communicating with meme investors. As disclosed in the LCF mis-sale report, retail investors reported the mini bond to the FCA several months before the LCF went into administration, yet the FCA did not know how to respond to information produced by ordinary individuals (Dame Elizabeth Gloster DBE 2020). Eventually, considering the FCA's failure in handling the LCF, even though the mini bond was not covered by the FSCS, the FCA was forced to compensate 2871 LCF victims an overall approximated £57.6 million by April 2021. This communication protects meme investors' dignity and may help to ease the distrust towards regulators.

4.2. Improving Financial Literacy in the UK

According to the Centre for Social Justice (Griffith 2022), nearly half of all adults in the UK believed that they would be in a better financial position if they received more financial education. Yet, the availability of financial education is rather limited and largely relies on family education. In other words, people from disadvantaged backgrounds are more likely to suffer from a lack of financial literacy. In this sense, educational inequality reinforces financial inequality. Meme investors have no access to traditional financial institutions for advice and received little explanation from the regulators against risks involved. As recognised in Section 3.3, meme investors also engage with derivatives trading. The complexity of such financial transactions was unveiled in Hazell v Hammersmith and Fulham LBC [1992] 2 AC 1 1991 (1991), where even supreme court judges could not reach a consensus as to the nature of derivatives transactions.

This article's emphasis on financial literacy does not mean making everyone an expert in trading. Rather, it focuses on reasoning with the public against excessive speculation. Regulators need to pass a clear message to the public that the regulators understand the public's desire for inclusion, but excessive speculation will cause financial suffer on individual meme investor and increase systemic risks in the UK financial market.

Meme investors have limited access to well-regulated investment channels and trustworthy financial advice, which are exclusively for the super-rich, corporations, and financial institutions. Therefore, so long as meme investors have this unfulfilled investment need, simply warning against the risks will not change the situation. Instead, the warning is more of an excuse for regulators to walk away when problems arise. Against this backdrop, more reforms in the distribution and re-distribution of wealth in society will be needed to meet the public's desire for shared prosperity, which goes beyond this article. This argument is consistent with Thaler and Sunstein's nudge theory (Thaler and Sunstein 2008), which argues that educational promotion and policy changes are necessary for changing behavior in society. Thus, in the long term, the markets should provide meme investors with more regulated investment channels.

There is still something regulators can do to support meme investors now. In 2021, the Bank of England launched a series of podcasts on social mobility, communicating with experts on what employers can do in promoting social mobility. This article appreciates the Bank of England's commitment in promoting social mobility, however, the series is published on the Bank of England's own website (News, Publications and Events 2021). It is rather unusual for the public to regularly check the Bank of England website. Thus, the Bank of England's merit intention is not effectively communicated with the public. Instead, as demonstrated in this article, meme investors rely on social media information for investments. Therefore, to make the series more accessible to the public and regain the

public's trust, financial regulators should post the series on more popular social platforms like Twitter and Spotify.

Meanwhile, in its Approach to Consumers, the FCA (Approach to Consumers 2018) mentioned providing financial education to the public but failed to provide any explanation as to how such education would be delivered. As criticized in Section 3, information disclosure under the existing UK financial regulatory system implies that information receivers have sufficient knowledge to interpret information, by either being an institutional investor or client of financial intermediaries. Assuming knowledge leads to two unpreferable scenarios. Firstly, unsophisticated investors need to rely on agencies for knowledge. Therefore, the concentration of knowledge causes the concentration of wealth and power in financial intermediaries. Secondly, those who cannot afford agencies are excluded from investments decision-makings. Again, power becomes concentrated in financial intermediaries. Therefore, if the FCA can improve financial literacy among the public, it will be a crucial step forward in levelling up the playing field for meme investors.

This article suggests that the FCA works with the Money and Pension Service (MaPS) in making financial education more available to young people. In its current capacity, MaPS (The Children and Young People Financial Education Innovation and Evaluation Programme 2022) along only expects to help 2 million more people receive financial education in the next ten years. This agenda is too slow to catch up with the unprecedented financial inclusion and risks that crypto brings to the public. Furthermore, MaPS (Talk Learn Do: Evaluations of recent projects 2022) focuses on delivering a Talk Learn Do program to parents of children aged from three to eleven, which supports the parents in talking to their children about money. That is to say, the 18 to 30 years old meme investors' demand for financial literacy is yet to be met. This article argues that, like the Bank of England, the FCA could also produce podcasts on financial literacy on social media platforms to help young adults understand the default risks and systemic risks involved in trading. This policy recommendation echoes Banerjee and Duflo's call for real economists to engage with the public to counter online misinformation. Thus, such social media engagement is crucial for leveling up the playing field for meme investors and rebuild the public's trust towards the regulators.

5. Conclusions

The article sheds light on a new group of investors in the UK financial market, meme investors, by answering three questions: who are meme investors; what are their regulatory implications; and how to engage with meme investors?

Compared with traditional investors, meme investors are significantly less wealthy, rely on social media information, and trade outside of traditional financial intermediaries. These features allow meme investors to include their moral sentiments in investment decision making, while also exposing meme investors to excessive risks. To ease social inequality and fulfil its duty, the FCA needs to assist meme investors.

The emergence of meme investors represents the public's desire for inclusion. Traditionally, the financial market is only accessible for institutions and wealthy individuals, and less wealthy people are involved as pension fund contributors and depositors. Yet, in these scenarios, people have little power in investment decision making. In contrast, trading outside of traditional intermediaries allows meme investors to express their frustration towards traditional financial institutions, willingness to support jobs, and concerns over the environment. In this sense, meme investors are the implementors of moral transparency. However, the public's involvement in finance can be speculative; hence, could increase systemic risks in the UK financial market. Yet, this speculation largely mimics and responds to traditional investors' speculation.

It is also important to note that social media plays a crucial role in keeping meme investors informed and unified. On one hand, it allows people to share information online, hence, breaks traditional financial intermediaries' dominance in producing and sharing information. On the other hand, this peer support system creates a sense of community

that unifies meme investors. These achievements are significant for keeping the public informed and unified in the long term.

Due to meme investors' reliance on social media, this article calls for UK financial regulators to engage with social media when communicating with the public and providing financial literacy. Such engagement includes podcasting the Bank of England's Social Mobility series on Spotify as a response to the public's desire for equality and to rebuild the public's trust. Meanwhile, the FCA could also provide financial literacy against meme default risks and systemic risks on social media as a means to communicate with the public and counter online misinformation.

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Appendix A Examples of Internet Memes during the GameStop Frenzy

Figure A1. A meme used to describe meme investors' short squeezing. https://www.menshealth.com/entertainment/a35354744/gamestop-stock-memes/, accessed on 18 December 2022.

Figure A2. A meme recognizes meme investors' short squeezing as a mimic of traditional financial institutions' speculative culture. https://www.menshealth.com/entertainment/a35354744/gamestop-stock-memes/, accessed on 18 December 2022.

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