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INVESTING IN THE SOCIAL MEDIA AGE:

INSIGHTS, CHALLENGES, AND NAVIGATING THE NEW NORMAL

UC San Diego
RADY SCHOOL OF MANAGEMENT
The Brandes Center

Executive Summary

Investor social media platforms such as X (formerly Twitter), StockTwits, and Reddit's Wall Street bets among others have thrived—especially since the onset of the Covid-19 pandemic. With millions of users sharing ideas, reactions and recommendations, this "new normal" part of the investment landscape has created opportunities and threats for individual and professional investors. The highlights of our panelists' research and/or comments:

Gulliver: Be wary of the influence of social media on investment decisions. Distinguish between "expiring" and "permanent" information. Think like a scientist when investing. Base decisions on their alignment with a thoughtful investment policy statement—not what others are doing.

Seto: To counter the potential, harmful impact of the continued influence of fake news, establish a "deliberative" mindset before reviewing social media. This mindset may help investors discard information they later determine was inaccurate while preserving their trust and belief in news that proves factual. To be prompted into this mindset, write down a non-investment-related personal opportunity or goal and three pros and cons associated with it. Then, look at investment-related social media.

Mullins: Investor social media presents both challenges and opportunities. Different social media platforms provide different information—and it is worth distinguishing between "attention" and "sentiment." Generally, higher levels of "attention" for a company (a higher-than-usual number of posts, for example) tend to foreshadow poor returns over the subsequent 5-20 days, once you remove the effect of sentiment. Conversely, greater "sentiment" (whether investors are bullish/bearish on a stock, for example) tends to predict stronger returns once you remove attention's effect. It is important to consider sentiment and attention together.

Investors often use social media to create "echo chambers" where they surround themselves with others who share the same sentiment for stocks. This behavior tends to lead to poor returns. Instead, actively seek information that counters an investment thesis to test its merit.

This article summarizes and expands on a webinar discussion featuring the following panelists:

Peter Gulliver, Principal, The Gulliver Group in Moncton, New Brunswick

Dr. William Mullins, Assistant Professor of Finance at UC San Diego's Rady School of Management

Dr. Samantha Seto, Assistant Professor of Accounting at Simon Fraser University's Beedie School of Business

The discussion was hosted by Bob Schmidt, Executive Director of The Brandes Center at UC San Diego's Rady School of Management.

Watch a recording of the event here.

Investor Social Media: The Value of a "Deliberative" Mindset

Seto's research stemmed in part from a desire to counter what prior researchers describe as the "continued influence" effect. "It's the idea that you can't un-ring a bell," Seto said. "You will always remember how it sounds." Seto cited a jury that hears information in a case, but is later told not to consider it in their deliberation. It's very difficult for jurors to un-hear or not rely on that information.

For investors, research suggests that information will continue to influence judgments—even after investors learn that information is false. "We would expect that when money could be on the line, that investors would be able to completely untangle the false information," Seto said. "But we find that that's not the case." Given the volume of misinformation (misstatements spread unintentionally) and disinformation (lies spread intentionally) on various social media outlets, how can investors protect themselves?

Seto's work provides a practical solution.

First, one might suggest investors simply adopt a skeptical attitude before looking at social media to guard against the influence of misinformation. But prior studies have shown such a simplistic approach may lead to unintended consequences. "The problem, from an investment context, if we're skeptical of everything," Seto warned, "we could lose out on potential opportunities."

Schmidt said, "And if we look at everything with skepticism, particularly when it comes to investing or banking, our trust might erode. And we can't have a high-functioning financial system where there's no-or limited-trust."

"Yes, we specifically wanted to look for an intervention that wouldn't interfere with your overall thinking processes in a negative way," Seto said. She noted that various social media platforms provide blanket warnings to users to review material they read carefully. But Seto said, "Prior research has found these disclaimers could actually cause you to become desensitized and you might just ignore the disclaimer. Or you might become over sensitized and overcorrect and ignore everything you read because you can no longer believe anything."

Instead of inducing these extreme mindsets, Seto's work introduces the "deliberative" mindset, which she describes as using a "lens that encourages individuals to assess information in a balanced and impartial manner, breaking some of the links between our beliefs about news and judgments without impacting judgment in a negative way."

So, how did she create this "deliberate" mindset for investors?

Seto and her co-authors created an exercise in which nearly 200 participants were asked to value a fictitious company "to maintain a diversified portfolio." They didn't realize they really were being evaluated on how a fake news item might influence their valuation and decision to invest or pass.

But before evaluating the investment merit of the company, all participants were given the following simple prompt they could do in about 2 minutes:

"Please think about personal opportunities that you would like to pursue (e.g., jobs, volunteer opportunities). List the first six that come to mind." Next, *some* participants were asked to "list 3 pros and 3 cons associated with" the first opportunity they listed. Another group was simply asked to alphabetize the list. Both exercises "are unrelated to the valuation task that participants complete later in the experiment."

After the exercise, both groups looked at financial statements for the company they were asked to value. The statements reflected "neutral performance." Next, all participants viewed a "breaking" news article about the company that stated a new product it has been testing "may provide measurable health benefits." Expecting strong demand, the statement said the company "is expanding its operations by investing in a $400 million production facility, which will also create new jobs." As such, all participants received positive news about the company.

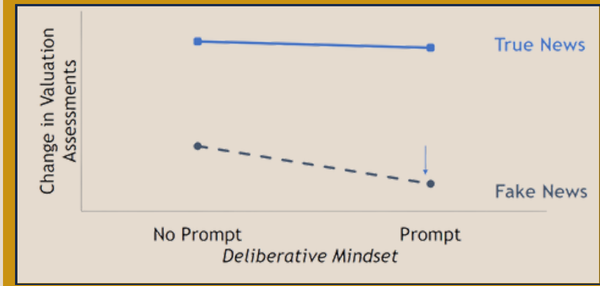
Afterward, Seto and her co-authors measured participants' valuation assessments. Then, some participants were told the news story was fake; others were told it was true.

Next, participants were asked to make a "final valuation assessment" reflecting their final assessment *minus* their initial assessment.

For participants prompted to be in a deliberative mindset (those who had listed pros and cons associated with a personal goal), the news story had little effect on their final assessment when told it was true, but participants were better able to adjust their judgments from the fake positive news compared to those who did not receive a prompt, as demonstrated by the greater negative change in valuation. See Exhibit 1.

During the webinar, Seto said, "The deliberative mindset reduces the extent that

Exhibit 1 | The Benefits of a Deliberative Mindset



investors will continue to rely on information from the news article for fake news, but not true news." Additionally, a second study demonstrates that the deliberative mindset prompt does not cause an overcorrection. She said that judgments about the company are not significantly different than someone who never viewed that piece of fake news. "The prompt does have that effect that we were hoping for."

Her work, "The Value of Investors Being in a Deliberative Mindset When Reading News Later Revealed to be Fake" is forthcoming in the *Journal of Financial Reporting*; the complete report is available here.

The Social Signal, Echo Chambers, Politics and Insights

Mullins described social media and investing as "the new normal," adding that it's "here to stay" and there are positives and negatives.

His research has drawn on social media platforms such as X (formerly Twitter), StockTwits (which is like X, but largely for equity investors), Seeking Alpha and Reddit's Wall Street bets.

On the positive side, Mullins said investors now have access to all types of information they never had before—without the need for expensive news feeds that professionals often rely on.

"Also, there has been a huge increase in the number of retail investors," Mullins said, as many US brokerages began offering low-cost or free trading towards the end of 2019. And the onset of the Covid-19 pandemic paralleled a rise in online trading. "And these two pieces of the puzzle work together. So investor social media is generating information and retail investors are piling into US markets." See Exhibit 2.

Exhibit 2 | Retail Investors Have Flocked Into US Markets

Daily net inflow by individuals ($millions, 21-day moving average)

Source: Source: Vanda Research and Financial Times. "Meme-stock 2.0: Wall Street's Retail Trading Boom is Back." Hughes, Jennifer. 2-17-23 https://www.ft.com/content/0ffaea2b-ba38-4dbc-bb52-499cdb0e1662

In his paper, "The Social Signal," Mullins and his co-researchers wondered if various social media outlets and their rising numbers of active participants were "just repackaging existing information that was already in The Wall Street Journal or Bloomberg." But that's not the case. "There is new information that investor social media is producing," Mullins said. "It's highly specialized information for certain companies, especially for smaller firms. Social media is actually generating additional information that is useful for predicting returns in the next 5 to 20 days."

The other aspect to investor social media that Mullins' team helped quantify were two components: the notion of "attention" vs. "sentiment." Attention refers to the quantity of social media activity. "Are people paying attention to this stock on this day?" Mullins asked. "Are they writing about it? Are they posting about it?"

"Interestingly, the effects of these two signals, the attention signal and the sentiment signal, move in opposite directions on average. If the sentiment is positive, that is a good sign, and actually predicts positive returns over the next 5 to 20 days as you might expect, once you account for the effect of attention. But," he cautioned, "attention actually predicts negative returns, once you account for sentiment."

Mullins added that "social media" is too broad a label for these elements. He found that different social media platforms (StockTwits, X, Seeking Alpha, and Reddit) produce different types of information.

"There is a different signal in each one of these platforms, which is not entirely surprising," he said. There are some common traits across platforms, such as the amount of attention for the same stocks on the same day. But Mullins noted, "These platforms have different user bases and different structures that generate information—and the sentiment tends to differ across platforms, which suggests there is different information on each of these social media platforms."

One other interesting element Mullins highlighted in his work was that traders that became active in the Covid-era seemed to have different information and their social media posts were "actually less informative about future returns." Mullins couldn't pinpoint why, but emphasized the limited predictive utility of their posts.

Beyond these insights from Mullins' work, he cautioned there is a "dark side" to social media and investing. In general, he noted existing research that shows people have biases and tend to trade too much. "And these two things can be exacerbated by investor social media," he said.

1. While not explored in "The Social Signal," he has done other, related research showing US investors may frame their decisions to align with their political beliefs. "We are already doing things that are bad for our returns. Adding a political frame on top of our investment decisions is not helpful, as a general rule." And that's true regardless of political party, his research shows.

2. Mullins also shared some preliminary findings from an early-stage, current research project that highlights another potential "dark side of social media—it exposes investors to manipulation." Mullins and others are studying celebrity social media accounts and what happens when they tweet about cryptocurrencies.

He said even though these celebrities (sports, TV, movie, music stars) are not financial analysts, "We find evidence that people are responding as if it were financial advice, and are going out and trading and buying these cryptocurrencies. It certainly looks like investors are vulnerable to being manipulated through social media."

3. Also, he cited a paper he wrote with Dr. Joey Engelberg (Brandes Center Academic Council member) and Dr. J. Anthony Cookson called "Echo Chambers." See this link for more details. This work focuses on "selective exposure" bias.

Drawing a parallel with politics, Mullins said Republicans in the United States may prefer watching Fox News while Democrats watch MSNBC. Similarly, Mullins wondered whether investors create their own "echo chambers" where, if they are bullish about a particular stock, they would only want to read posts from other bulls. "And that's what we find," he said. "And you'd think that when money is on the line, you'd want to hear all the information about the stocks you care about. But instead, people systematically set up their news feed so they're not exposed to things that disagree with what they already thought."

The consequences? "This leads to worse returns for the investors who do this," Mullins said. "And it's not just retail investors. Professional investors do this; they do it less, but they still do it. This seems to be a deep feature of all our psychologies that we need to keep in mind and try to push against to the extent possible."

But how? How can investors absorb the positive elements of social media while protecting themselves against its negative influences?

Guarding Against Negative Social Media Influences

With the rise of social media, Gulliver said investors consume more "expiring" vs. "permanent" information. And this preference parallels shorter attention spans and a focus on instant gratification that has made longer-term financial planning more difficult.

For more than 30 years, Gulliver and his team have provided investment management consulting services to high-net-worth private clients and select institutional investors. He said his role has changed over the years, especially amid the rise in social media use. Now, he's more of a co-active coach. "I need to be aware of what information my clients are consuming and how. And sit with them and educate them to build more of that permanent information base and have its effects compound over time."

"I've actually used Samantha's approach," Gulliver said, referring to the deliberative mindset. "I haven't used her work specifically, but I do prompt people to think about the pros and cons because it does make them step back and think about their decisions and see how they fit into their vision."

Gulliver also stressed the importance of grounding decisions back to a customized investment policy statement. "The stories [on social media] now are being written to trigger the investment and cognitive biases we all have," he said. "So, I try to educate people on that as well and push them not to use their limbic brain—or the emotional side—when making investment choices."

During the discussion, Schmidt asked how social media might be used for long-term investing. Mullins said social media may help uncover undervalued opportunities, especially among mid-, small-, and/or micro-cap stocks. "It allows you to surface information about these companies that's much harder to do otherwise because they don't have analysts covering them. They're not in the news. It actually allows you to do some fundamental analysis and get extra information that in the past was very, very hard to do."

Mullins added that if you share your research on social media, such channels could accelerate the acceptance of your assessment and, perhaps, help push the stock price higher toward your estimate of its intrinsic value.

"Once you have taken a position," Mullins said social media provides "a megaphone to try and convince others that this is a valuable investment."

Investor Social Media: Tools to Counter Potential, Negative Biases

Given the pros and cons associated with social media, Schmidt wondered how effectively investors could use social media as a productive tool without succumbing to the associated behavioral biases that can damage results.

"A person has to step back and realize when you're in the situation to rethink," Gulliver said. "To think like a scientist. And, even before you go into the situation, you have to be aware of what the inherent biases are and go back to that deliberate mindset like Samantha discussed. Have a document with pros and cons and put that out before you enter into the arena."

"That reminds me of studies on checklists—for pilots, for example," Schmidt said. "Even if you're very experienced, a checklist can help ground you, help you be more rational and maybe uncover some things that you might have overlooked in the moment."

Seto added that a good tool might be as simple as a Post-It note on your computer monitor.

"I would argue right now in the time we live, it's very important to have that checklist," Gulliver said. "To have a script to follow before you enter into a decision."

Schmidt suggested financial advisors can help individuals with decision-making—if they remain rational.

“Advisors are in a unique position to really help people,” Schmidt said. “But you can't succumb to the same biases. You can't be fearful when your clients are fearful. I'm hoping that sessions like this, where we're raising awareness of some of these biases and sharing some tips and tools for investors to use, whether institutional or individual, can have a positive impact.”

Mullins added, “Being aware of the pull of an echo chamber is a valuable thing to keep in mind. And the natural technique that you could use in response is to seek out the counterargument.” Bulls should seek out bearish information and vice versa. “Proactively looking for the opposing argument is a good idea.”

Closing Thoughts

Gulliver said social media has made his job more difficult in ways. For example, through regular conversations with clients, he might learn they have no interest in buying a retirement home in a warmer climate. But those clients might change their mind after seeing someone on social media posting pictures of their new home far south of where they live.

“I see this fairly consistently,” Gulliver said. “Dopamine motivates us to do things we think will bring us pleasure.” And studies point to the dopamine “hit” social media often gives its users. “We have to be aware of how that plays into decision-making.”

Schmidt said investors often compare their returns not only against an index, but against their brother-in-law’s stock picks and, increasingly, against millions of people on social media. Ideally, he said investors should compare their performance against their own, specific goals. “But it’s so hard to stay focused on your goals,” Schmidt said, “when you’re distracted by others.”

Seto noted there are an increasing number of studies on how investors use social media, but she said, “companies are using social media themselves to disseminate information, and Will mentioned that it democratizes access. Now, investors can actually reach out directly to companies and influence investors’ decisions and judgments. With the dark side of social media, there is that bright side, too. As investors, we do have more access than we ever had before. That's something to highlight.”

“I can see, from Peter's perspective, that social media may cause all kinds of noise in people's ability to think long term, but it is the new normal,” Mullins said. “It is here to stay. And it does have these features of crowd-sourcing information about smaller companies and, in that, allowing specialized or niche information to come to light. To some extent, it's a challenge, but it's also, I think, an opportunity.

Mullins added, “Investor social media is a lot more varied than people may think. In a way, The Wall Street Journal and The New York Times tend to say roughly similar things. They're just reporting the news, but investor social media has a spin, has a sentiment, and because it tends to crowd-source what is covered, there is actually different information on each of the platforms. I think there is going to be more research trying to understand how platforms shape information.”

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