

SECURITIES SIDEBAR

THE LATEST SECURITIES LITIGATION NEWS FROM BLOCK & LEVITON

THE EMERGENCE OF CHATGPT AND ARTIFICIAL INTELLIGENCE FOR ALL



Midjourney, create a realistic photo of a group of attorneys and investment professionals who are looking over the shoulder of a robot who is inputting data into a realistic looking computer

One of the most significant recent breakthroughs in artificial intelligence (“AI”) is ChatGPT, an AI language model released in November 2022 that quickly went viral and attracted over one million users less than one week after its release. It was developed by OpenAI, a research lab that received a \$1 billion investment from Microsoft in 2019, followed by another multibillion-dollar investment from Microsoft in January 2023.

So how does ChatGPT work, and why is it being considered a revolutionary advancement in AI? Put simply, ChatGPT is an AI chatbot based on GPT (Generative Pre-trained Transformer) architecture that can understand text inputted by humans and create human-like responses. It was developed using at least two types of machine learning, a large language model (based on an artificial neural network to find statistical patterns in data and predict and place words) and reinforcement learning with human feedback.

We asked ChatGPT

“HOW DO YOU WORK?”.

Here’s what it said:

“ChatGPT is trained on massive amounts of text data, which helps it understand the patterns and structures of language. It uses this knowledge to generate text that is coherent, grammatically correct, and contextually relevant.

When a user interacts with ChatGPT, the system analyzes the input and generates a response based on the data it has been trained on. This can involve using natural language processing techniques to understand the user’s intent and generate a response that is relevant and helpful.”

ChatGPT’s possible applications are wide-ranging, and it can be harnessed by investors in a variety of ways. As ChatGPT itself explained, an investor might ask ChatGPT to generate a report on the performance of a particular industry over the past year. ChatGPT would then analyze relevant data and generate a report that provides a comprehensive analysis of industry performance, including trends, key drivers, and potential risks.

Block & Leviton went all-in on artificial intelligence for this issue. All the images in the newsletter were computer generated by Midjourney, an artificial intelligence program that creates pictures based only on text input. The prompts used to generate the image are in each caption. See midjourney.com for more information.

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If an investor wanted to analyze social media data to determine the market's reaction to a particular stock or industry, ChatGPT could generate that analysis, including positive and negative trends and potential implications for investment decisions.

In general, ChatGPT has the potential to significantly benefit the larger economy, including by increasing efficiency in business operations, improving financial analysis, contributing to advancements in scientific research, and increasing accessibility. In addition to Microsoft, other large technology companies like Google, Facebook, and Amazon have all announced their growing focus on generative AI technology.

Inevitably, there are also various risks and challenges associated with the widespread adoption of ChatGPT's technology, including its broad potential to disrupt a variety of industries. To start, ChatGPT is still an incomplete tool. OpenAI itself has acknowledged that the bot has flaws, stating on its website that "ChatGPT sometimes writes plausible-sounding but incorrect or nonsensical answers." Other major concerns include potential job displacement and ethical concerns around privacy and data usage. In fact, ChatGPT was ordered to temporarily stop processing Italian users' personal data in March 2023 over alleged violations of European privacy laws. In the same month, a group of industry participants, including Elon Musk, signed a public letter calling for a "pause" on

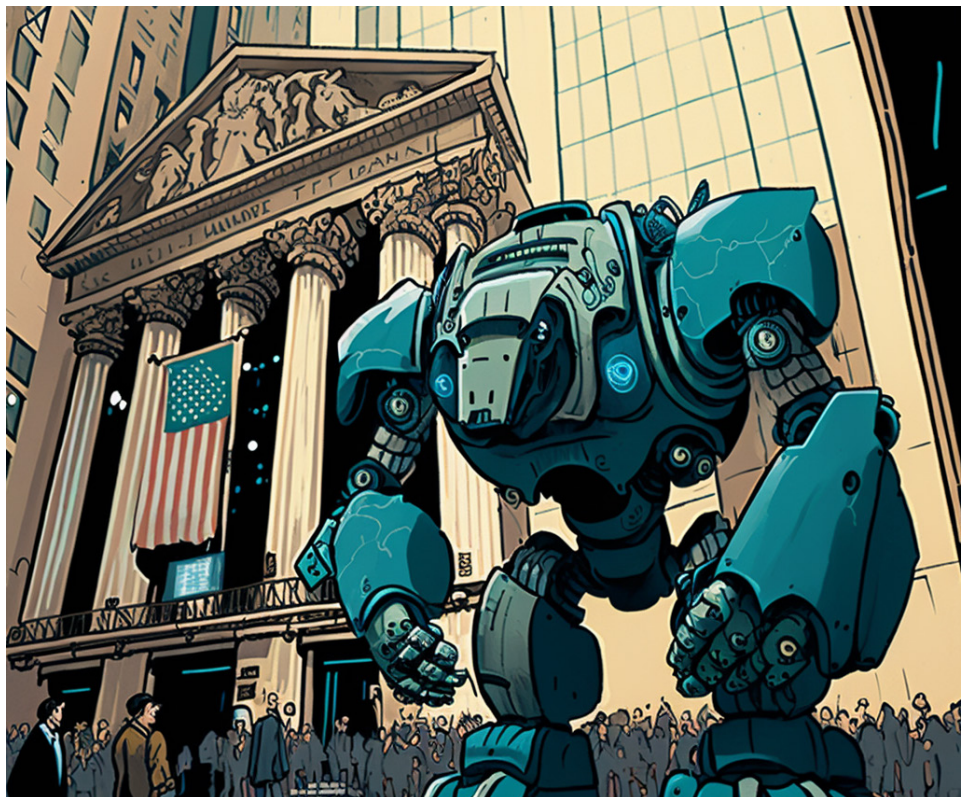
developments of advanced AI systems of at least 6 months to halt what they called a dangerous arms race. In April 2023, a prominent technology ethics group filed a complaint asking the U.S. Federal Trade Commission to open an investigation into OpenAI to determine if commercial release of ChatGPT violates U.S. and global regulations.

Despite the risks, progress in artificial intelligence continues to march forward for now, and it will be interesting to see how this technology continues to evolve and shape the broader economy in the years ahead.

THE IMPACTS OF AI ON THE WORLD OF INVESTING

AI is having a significant impact on the world of investing. AI is likely to empower investors in their search for company-specific information—especially when it comes to ESG concerns. And trading algorithms are increasingly capable of fully replacing human stock pickers. In both instances, what AI brings to the table is the ability to quickly and efficiently process enormous swaths of disparate data. Yet in both instances, supervisory human judgment remains key.

Algorithmic trading—the practice of purchasing or trading a security according to some prescribed set of rules tested on past or historical data—is already widespread in the U.S. stock market. The incorporation of AI will allow newly developed algorithms to diversify trading patterns and move into more pragmatic machine learning dexterity that can manage real-time deciphering of large volumes of data from many different sources. These AI trading algorithms are undoubtedly



Midjourney, make a cartoon image of an artificial intelligence technology taking over the new york stock exchange

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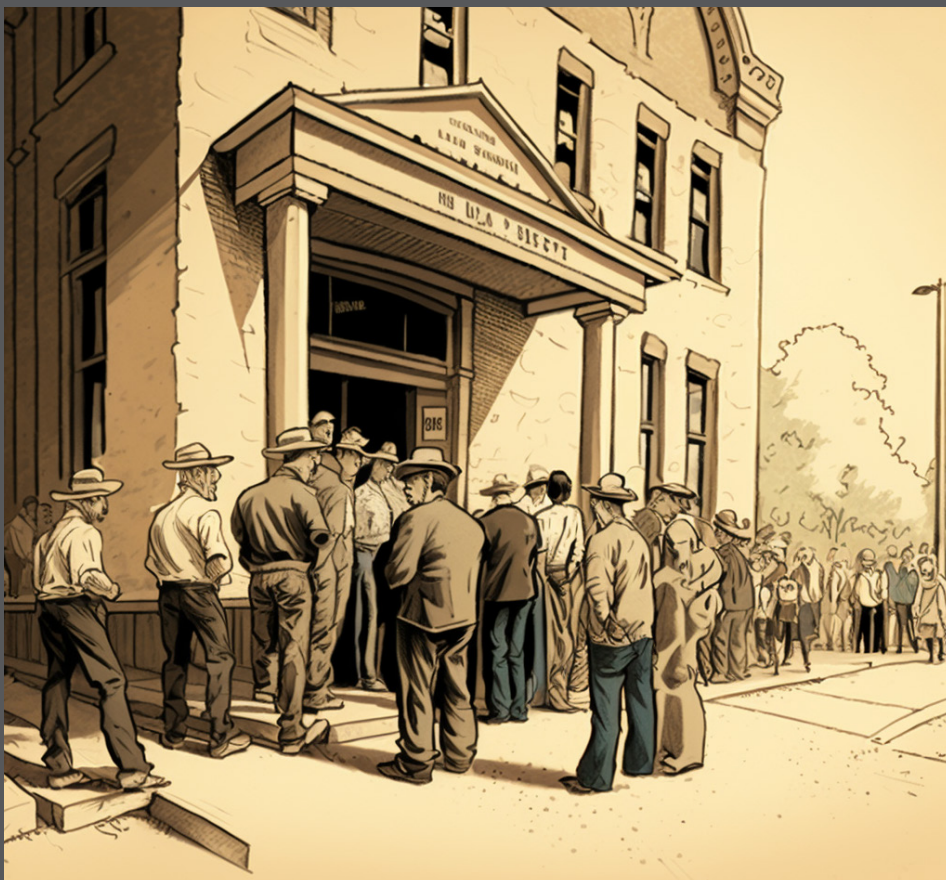
well suited to take over the management of index funds, which are just passively managed, but AI is also being used to actively manage portfolios. BlackRock, the largest U.S. investment management firm, has started to replace human stock-pickers with a fully automated investment program powered by self-learning AI algorithms. Investors should remember, though, that all AI trading algorithms will not be equally effective. They are written by human beings and will therefore be limited by the programmer's understanding of both the underlying technology and the market. When it comes to making ESG-focused investment decisions, investors are typically stuck with self-reported company information. Because data accumulation is

slow, the data lags behind the company's actual position, with studies suggesting up to 90% of negative company incidents are omitted from reports. This leads to positive bias. So while a company may look like it delivers a sustainable mandate when reviewed globally, it can be hard to disaggregate data to look at problems in a particular part of the business or area of the world. AI, however, gives investors the ability to interrogate vast, disparate datasets more quickly and more thoroughly than a human can. AI can capture information from social media, global news sources, and even satellite imagery, all at once. Programs like Sentiment Analysis are trained to find and analyze the tone of text, like earnings call transcripts. The

ability to combine all of these data sources in real time is key to identifying skewed or missing metrics. This is the information that sustainability-focused investors want and need to make their decisions.

AI provides investors with powerful tools for analysis and portfolio optimization. But investors who understand the contours of AI's capabilities and limitations will best be able to leverage it in making investment decisions.

IMPACT OF HIGH INTEREST RATES ON THE FINANCIAL SYSTEM



On March 16, 2022, the Federal Reserve began raising interest rates with the hope of achieving a "soft landing": a sharp reduction in inflation without crashing the economy. The first major signs of turbulence emerged in March 2023 when three major banks failed.

The biggest domestic bank to collapse was Silicon Valley Bank, a relative newcomer to the banking scene whose assets swelled to \$209 billion by the end of 2022. On March 10, 2023, California regulators shuttered the bank and appointed the FDIC its receiver after a panic led to \$42 billion in deposit withdrawal requests. Initial post-mortems blamed two factors tied to high interest rates. First, the drying up of venture capital funding for SVB's start-up clients led them to seek access to more of their cash. Second, SVB had invested much of its customer deposits in Treasury bonds and other low-risk assets whose value declined as interest rates rose and higher-yield

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bonds became available. SVB sold some of those assets at a loss to meet customer withdrawal requests, which may have exacerbated the panic. Once the bank failed, regulators quickly stepped in, first guaranteeing deposits covered under the FDIC's insurance limits, and then also guaranteeing uninsured deposits.

Signature Bank soon followed. New York regulators closed the bank two days after, and partially because of, SVB's failure: many of Signature Bank's private company clients sought to withdraw their deposits when they learned of SVB's collapse. The bank's exposure to declining crypto assets likely also played a role in its demise. As with SVB, the FDIC guaranteed customers' insured and uninsured deposits.

Just a few days later, the Swiss government brokered a deal between Swiss banks UBS and Credit Suisse to prevent the latter's downfall. The 167-year-old bank faced increasing withdrawals and declining deposits following a series of scandals and leadership changes over the last three years. The failure of SVB and an announcement by Credit Suisse's

largest investor that it would not add to its investment contributed to a sell-off in shares of the bank and a sharp drop in the prices of its bonds. UBS agreed to take over its rival for roughly \$3 billion. Unlike SVB, Credit Suisse had hedged against rising interest rates, but it nonetheless fell victim to volatility in the financial system and perceptions of weakness.

The failures of these banks raised concerns that panic would spread throughout the financial system and cause a wave of bank failures. That worst-case scenario has not materialized, in part because state and federal regulators' actions assuaged fears that bank customers might lose their deposits. But that does not mean that the financial sector has recovered. Major bank indices, including the Dow Jones U.S. Bank Index and the NASDAQ Bank Index, dropped by more than 20% in the first two weeks of March and have remained flat since.

Unsurprisingly, the share prices of the banks that failed have taken a particularly hard hit, and investor suits have followed. In the days following SVB's collapse, multiple investors filed putative class

action complaints against SVB Financial Group, the bank's parent company. The investors alleged that the company made false and misleading statements by failing to disclose the risk that interest rate hikes posed to the Company's business. Similarly, shareholders have sued Signature Bank for failing to disclose weaknesses in its business fundamentals. These complaints fault Signature Bank for underselling the volatility of its cryptocurrency-related deposits and, by extension, its vulnerability to a liquidity crisis and subsequent regulatory takeover. Credit Suisse was already facing a series of investor class actions based on its financial troubles over the past several years, and the events of March 2023 launched another lawsuit. The initial complaint alleges that Credit Suisse lied about the significant outflows it experienced in the fourth quarter of 2022 and failed to disclose material weaknesses in its internal controls.

These cases are still in their infancy, so additional theories of liability may yet emerge. We are continuing to monitor the area and advise clients accordingly.

SPRING 2023 ESG UPDATE

In December, we wrote about the polarization over the use of environmental, social, and governance ("ESG") factors in investing. While ESG funds have been around for at least two decades, recently they have grown both in popularity and notoriety. The very concept of ESG has turned into a proxy political battlefield, with fund managers and companies caught between, on the one hand, the demands of investors that they strategically plan for long-term risks related to climate and other ESG factors and, on the other, the backlash against investment strategies seen to hurt industries such as fossil fuels and firearms.

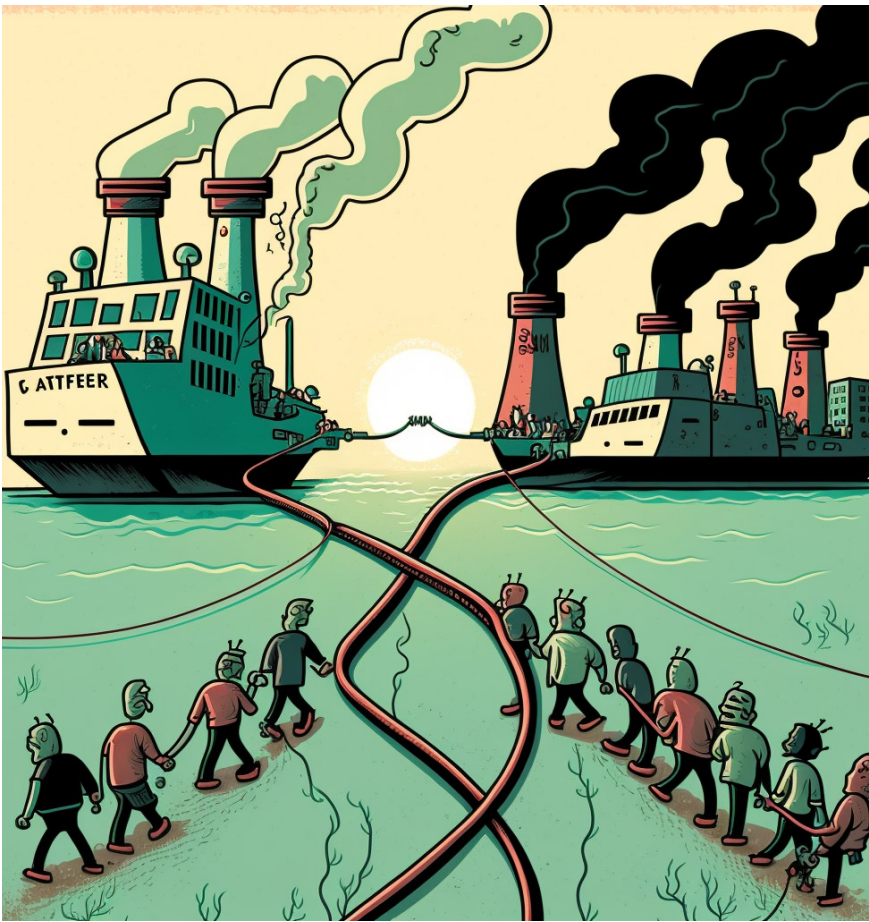
The ESG debate went mainstream this March. After Silicon Valley Bank collapsed, several lawmakers and pundits theorized that the bank was doomed by its ESG initiatives and focus on diversity. Later that month, President Biden used his first presidential veto to defend a Department of Labor rule giving retirement plan sponsors more leeway to consider ESG factors in decision-making. Predictably, ESG opponents like House Speaker Kevin McCarthy criticized the move as an attempt to funnel investments to "far-left political causes," while Biden defended his veto as necessary to protect fund

managers' freedom to "consider risk factors MAGA House Republicans don't like." The SEC, which is finalizing a rule requiring companies to make disclosures related to their carbon footprint, is reportedly considering backing away from some of the rule's more controversial disclosure requirements after business interests threatened to unleash a typhoon of litigation.

Peering behind the rhetoric, the numbers suggest enthusiasm for ESG has not abated among investors.

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A futuristic cartoon image of a tug of war between people who support environmental, social, and governance issues on one side, and people who believe that focusing on those issues is inappropriate and might hamstring legacy industries on the other side

80% of fund managers surveyed by PricewaterhouseCoopers in 2022 reported that they planned to increase their investments in ESG products in the coming years. PwC estimates that by 2026, ESG assets will comprise one-fifth of all assets under management. While non-ESG funds saw net outflows in the first quarter of 2023, investors put more money into ESG equity funds than they took out. Despite a down year in 2022, those ESG equity funds outperformed their non-ESG peers in Q1 2023. Last quarter may not be an anomaly: Data released by Morningstar shows that the majority of ESG equity funds outperform their peers over three and five-year periods.

While some states continue to act aggressively against ESG, the backlash appears to have triggered its own backlash. Kansas and Indiana passed watered-down anti-ESG bills after fund managers projected the measures would cost the states \$1.14 billion and \$7 billion respectively. A new anti-ESG law in Texas that restricts which banks the state can do business with has reportedly already cost the state \$300-500 million by severely curtailing Texas' ability to shop around for favorable interest rates, according to research by UPenn's Wharton School of Business. Other states are moving in the other direction, pushing state asset managers to incorporate ESG principles or even divest from fossil fuels entirely.

Providers are caught between the two poles. Some, like Morgan Stanley, are moving forward with new ESG funds. Others, like Vanguard, are pulling back from ambitious climate initiatives. A new term, "greenhushing," has been coined to describe the middle-ground approach of pursuing ESG initiatives without publicizing them.

Whether the attention is warranted or not, politicians and presidential hopefuls have amplified the noise around ESG. With an election year peeking around the corner, ESG will almost certainly continue to be a political battleground.