Artificial Intelligence and Financial Regulation: The Challenge of Balancing Promise and Peril

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> "The rise of AI threatens to worsen wealth inequality, weaken worker power, and fortify a tech oligarchy. What does progress even mean, if it doesn't include better lives for people who work? What is the point of greater efficiency, if the money being saved isn't going anywhere except into shareholders' bank accounts?"
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> *- [Ted Chiang](), Writer*

> "The development of AI is as fundamental as the creation of the microprocessor, the personal computer, the Internet, and the mobile phone. It will change the way people work, learn, travel, get health care, and communicate with each other. Entire industries will reorient around it. Businesses will distinguish themselves by how well they use it."
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> *- [Bill Gates](), Technologist and Philanthropist*

The optimists, the pessimists, and most of those in between are right about Artificial Intelligence ("AI") to some degree: their views reflect the promise and peril of AI. The challenge we all face is balancing those views, ideally in a way that enables Main Street Americans and the country to get the benefits of AI while avoiding the potential catastrophic applications and implications. Innovation—related to AI or anything else—is the fuel that drives our economy, wealth creation and rising living standards, along with healthier, happier, more satisfied people. However, bad actors, short term thinking, or just development gone awry can set that all back as the trust and confidence of the public, investors, markets, and governments are undermined if not destroyed.

If that happens, then the result will likely be an overreaction that results in blunt, innovation-limiting over-regulation. The danger to realizing the promise and potential of AI isn't the pessimists or luddites; it's optimists who don't see the need for proper regulation now or understand the imperative for trust-building structures within which AI can develop and thrive, even if not at the unfettered pace some may like.

The potential of AI is far too important to take that risk or let that happen. A laissez-faire attitude (or a Silicon Valley attitude of "move fast and break things") about AI development isn't appropriate or sustainable given the potential downsides for Americans, the AI industry itself, the broader economy,

and humanity. That's why the AI community should lead the way in demanding that government invest the time and resources to ensure that AI has proper oversight and regulation. This should be looked at as one of the most important public-private partnerships ever. It's the only way to get the maximum benefits from AI while minimizing the risks. Yes, reasonable people will disagree about where and how to strike the balance, but no one should disagree with the need to strike a balance and a partnership is the best way to achieve that.

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AI has become ubiquitous in the daily lives of Main Street Americans, with technology being used to provide everything from real-time driving directions to language translation to weather forecasts. Financial services companies have employed AI in all corners of the banking, investment, and financial services sector. Without question, many of these changes are helpful for consumers, financial companies, and society as a whole. AI has the potential to bring greater efficiency, lower cost, and improved access to customized financial services; enhance compliance and risk management; and improve financial performance and outcomes. At the same time, however, AI poses serious threats to consumers and financial stability.

A 2023 Executive Order detailed both the benefits and challenges that AI presents to American society:

> Artificial intelligence (AI) holds extraordinary potential for both promise and peril. Responsible AI use has the potential to help solve urgent challenges while making our world more prosperous, productive, innovative, and secure. At the same time, irresponsible use could exacerbate societal harms such as fraud, discrimination, bias, and disinformation; displace and disempower workers; stifle competition; and pose risks to national security. Harnessing AI for good and realizing its myriad benefits requires mitigating its substantial risks. **This endeavor demands a society-wide effort that includes government, the private sector, academia, and civil society.**

The Silicon Valley motto of "move fast and break things" simply cannot apply in the case of AI. The stakes are far too high. Not only are Main Street Americans' pocketbooks, retirement accounts, and consumer data vulnerable to misuse and manipulation, broader financial stability is increasingly vulnerable to the threats of AI. While financial regulators have taken some initial steps to address the use of AI in finance, largely amounting to policy statements, guidance, and consumer advisories, **more urgency and concrete actions are needed to protect Main Street Americans and financial stability**.

However, we cannot allow the challenges and risks of AI to overshadow its incredible potential to improve the financial services industry for all Americans. As Better Markets has detailed, AI has already been used to strengthen and streamline internal and back-office operations at financial firms; improve trading operations; and enhance client interactions.

Effective management and oversight of the safe and fair implementation of AI throughout the financial industry will require one of the greatest balancing acts of our time. It will necessitate the highest levels of cooperation, coordination, and foresight to maximize AI's upside while also

minimizing its downsides. We urge the Treasury Department ("Treasury") and the Financial Stability Oversight Council ("FSOC") and other financial regulators to take an active role to increase oversight, regulation, supervision, and consumer protection. AI's growth trajectory and penetration into all corners of the financial industry demands a new approach to regulation, one that effectively incorporates agile and forward-looking regulatory frameworks and a focus on consumer protection, ethics, transparency, accountability, and financial stability.

We recommend that the financial regulators take specific actions to allow for AI's continued innovation while at the same time protecting consumers, investors, banks, the economy, and the financial system from harm:

- **Coordinate the understanding of and communication about AI— including its benefits and risks**—to facilitate appropriate actions by the public, regulators, and financial industry**;**

- **Increase funding** to build staff, expertise, testing, and other capabilities to appropriately oversee and regulate AI and strengthen enforcement in this area;

- **Recognize and address the inherent data problems** that permeate AI;

- **Develop a pre-approval process** for acceptable applications and usage of AI;

- **Increase regulatory standards and enforcement** to punish and deter violations, recidivism, and the attitude that such behavior is simply a cost of doing business is not acceptable; and

- **Enhance public transparency** around the enforcement of AI rules and regulations.

Background

AI includes a range of systems that can process vast amounts of data extremely rapidly and execute tasks based on that analysis. It also encompasses the next generation of technology enabling these programs to exercise judgment or (as some say) "think" in the same way that humans do. The question of whether machines can think is not new; researchers explored this question many decades ago and popular culture followed, most famously with HAL, the human-like machine in the movie *2001: A Space Odyssey* in 1968. Such questions have resurfaced recently with the emergence of AI and questions about appropriate oversight and regulation.

Notably, U.S. Securities and Exchange Commission ("SEC") Chair Gary Gensler explained that while AI systems, technology, and data inputs have grown exponentially and increasingly imitate human intelligence, at its core AI still relies on data inputs. Similarly, Acting Comptroller of the Currency Michael Hsu detailed the evolution of AI—first as a source of inputs to human decision-making, then to a co-pilot that enhances human actions, and finally as an independent entity that makes its own decisions—but underscored that all of these phases are rooted in code, data, and other instructions developed by humans.

Even the phrase "artificial intelligence" leads to **the incorrect conclusion** that computers are somehow "thinking" on their own. Thought leaders, academics, and other experts in the field (here, here, here, and here) have explained that currently AI is not actually intelligent and is instead using applied statistics based on data, coding, and statistical models that are created by inherently biased

humans. Writer Ted Chiang astutely [identified](#) this misnomer and explained that ***AI is not intelligent; instead, AI is only applied statistics***:

> "I think that if we had chosen a different phrase for [AI], back in the '50s, we might have avoided a lot of the confusion that we're having now."

> So if he had to invent a term, what would it be? His answer is instant: applied statistics.

> ***"It's genuinely amazing that . . . these sorts of things can be extracted from a statistical analysis of a large body of text," he says. But, in his view, that doesn't make the tools intelligent.*** Applied statistics is a far more precise descriptor, "but no one wants to use that term, because it's not as sexy."

It is true that computer models in use today contain vast amounts of data—more than any one person may have to make a decision. This has led to the belief that computers or AI are therefore able to outperform humans in a range of activities from investment decisions to bank examinations. While this is a potential outcome in theory, it is also a flawed conclusion because it misses the key consideration and evaluation of the motivation, intentions, and bias of the humans that programmed the computer or selected the data set that the AI uses to make decisions. The continued development of AI technology has obscured the line between human thought and computer or algorithmic decision-making. Chiang rightly [stated](#) how this evolution, when paired with corporate greed, can be devastating for Main Street Americans:

> ***[T]he rise of AI threatens to worsen wealth inequality, weaken worker power, and fortify a tech oligarchy.*** 'What does progress even mean, if it doesn't include better lives for people who work?' he wrote. 'What is the point of greater efficiency, if the money being saved isn't going anywhere except into shareholders' bank accounts?'

However, embracing AI's the transformative possibility for innovation and inclusivity [promises](#) better, fairer, more accurate, more accessible financial outcomes for all Americans:

> The status quo is not something society should uphold as nirvana. Our current financial system suffers not only from centuries of bias, but also from systems that are themselves not nearly as predictive as often claimed. ***The data explosion coupled with the significant growth in [machine learning] and AI offers tremendous opportunity to rectify substantial problems in the current system.***

Now, more than ever, Main Street Americans are relying on Financial Regulators, to take intentional and well-informed actions that protect society and the financial system from AI's threats while allowing AI's benefits to flourish.

Regulatory Recommendations

Without strong, forward-looking regulation in place, the dangers and abuses associated with AI are likely to outweigh the gains it can provide. Importantly, the interventions, rules, and regulation needed to reduce the risks of AI for Main Street Americans and financial stability "[are likely quite different than the traditional interventions in finance](#)."

We applaud the work that Treasury and others have already done to protect consumers and the financial markets. For example, Treasury's November 2022 [report](#) on nonbank firms' impact on consumer finance markets detailed how nonbank firms evade safety and soundness and consumer protection laws by operating outside of the "bank regulatory perimeter" and shed light on how AI presents data privacy and discrimination concerns. Additionally, in March 2024, Treasury published a [report](#) on AI-related cybersecurity risks within the financial services industry, emphasizing the need to protect against cybersecurity and fraud. This work, as well as events such as the Treasury's [conference](#) focused on AI and financial stability, clearly show that the risks of AI are well known within Treasury and that *it is now time to act to protect consumers and the broader financial system*. Indeed, the U.K. is already ahead of the U.S. with movement toward establishing [legislation](#) to control the development of AI models; strengthen cyber defenses; and reform data use and protections.

We offer the following recommendations—which are described in further detail in our [comment letter](#) to the U.S. Department of Treasury on this topic—for actions that are necessary to protect consumers, investors, financial institutions, businesses, regulators, and others that are affected by AI:

1. **Coordinate the understanding of and communication about AI—including its benefits and risks—to facilitate appropriate actions by the public, regulators, and financial industry.**

The FSOC should take the lead to develop and maintain a definition and taxonomy to frame the usage and risks of AI within the financial industry in the U.S. The Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act") assigned several important duties to the FSOC in the wake of the 2008 Financial Crisis. Many of these can be directly applied to AI, including monitoring threats to financial stability, facilitating regulatory coordination, and facilitating information sharing.

In recent years, financial regulators as well as other entities in the U.S. and around the world have attempted to define AI and describe its uses and risks. As mentioned earlier, in 2023, the FSOC included AI in its [Annual Report](#) for the first time. Also, the Congressional Research Service issued a [report](#) on the same topic in 2024, outlining several policy considerations that should be evaluated by Congress as it considers AI legislation, and the House Financial Services Committee issued a [report](#) summarizing its work and recommendations related to AI.

Years earlier however, in 2017, the Financial Stability Board published a [report](#) that defined AI, described its uses within the financial sector as well as its risks, and provided thoughts on governance by supervisors. In August 2021, the Bank for International Settlements issued a [report](#) explaining that AI brings a range of unique challenges and complexities that demand a coordinated global response.

These disparate reports prove that there is a serious lack of coordination on AI among financial supervisors. The message is further muddled by various international and domestic statements about actions that are necessary to respond to the risks of AI. For example, attendees at the international AI Safety Summit in November 2023, which included representatives from the U.S., issued a [declaration](#) recognizing the scope of AI's infiltration into nearly every part of humans' daily life and the significant risks that it poses to human rights, transparency, fairness, accountability,

safety, ethics, bias mitigation, regulation, privacy, and data protection. Attendees agreed on a cooperative agenda to identify AI risks, build a shared scientific and evidence-based understanding of these risks, and sustain that understanding as capabilities continue to increase. They also agreed to build risk-based policies across countries to ensure safety in light of the risks, collaborating as appropriate with activities such as developing frontier AI capabilities, appropriate evaluation metrics, tools for safety testing, and scientific research.

Unfortunately, these activities and tone have not carried through to financial regulators' approach to AI in the U.S. and contrasts with statements at the January 2024 Responsible AI Symposium, where leaders from the Federal Reserve, Federal Deposit Insurance Corporation, Office of the Comptroller of the Currency, and Consumer Financial Protection Bureau ("CFPB") said that further development is not needed because regulators already have the tools to address AI risks, such as existing tools and laws that apply to consumer protection, third party entities, and model risks.

2. Increase funding to build staff, expertise, testing, and other capabilities to appropriately oversee and regulate AI and strengthen enforcement in this area.
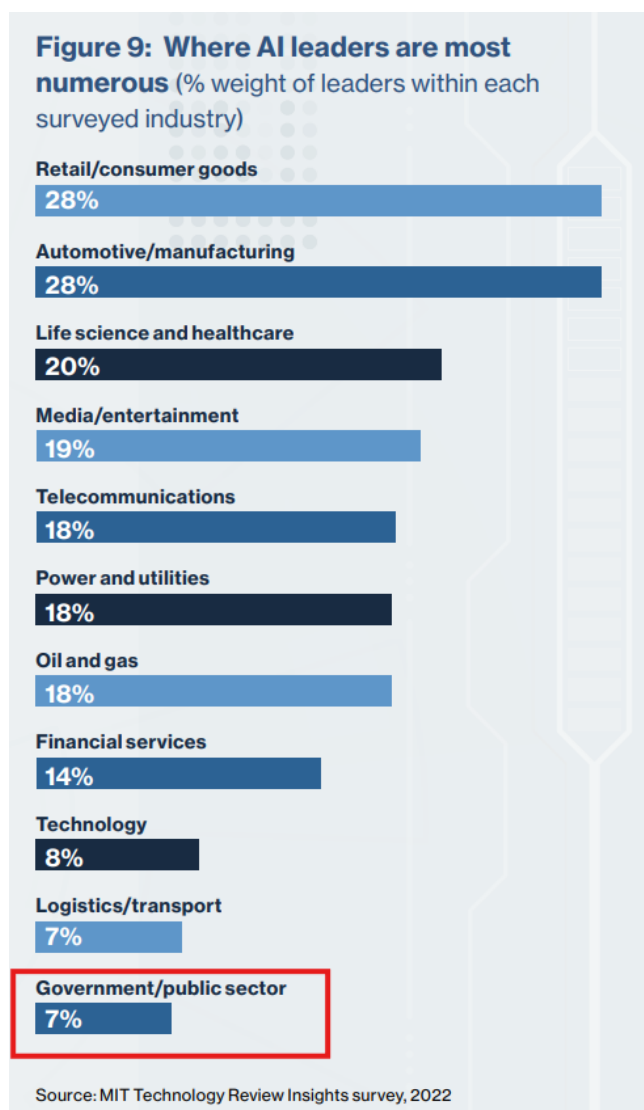
Funding for financial regulators must be increased to support staff, training, and other resources related to AI to achieve the goals of protecting Main Street Americans and financial stability. As mentioned earlier, the financial industry is spending billions of dollars on AI research, patents, and other activities. The federal government has started to focus on the need to hire AI professionals, but it must think bigger and broader to even keep pace with the industry.

Regulators need adequate funding so that they have the necessary AI expertise and can dedicate resources to AI supervision and enforcement. Such funding, along with focus and attention can make a meaningful difference in the success of regulatory programs. One example of this is the expansion of resources related to oversight of crypto markets and cyber threats at the SEC. In 2017, the SEC created the Cyber Unit in the Division of Enforcement to protect investors in crypto markets and from cyber-related threats. In 2022, the SEC almost doubled the size of the unit and renamed it the Crypto Assets and Cyber Unit. The SEC has taken similar, but smaller, steps with respect to AI—for example, it has established a team in the Division of Examinations to address issues regarding AI. A dedicated unit in the SEC's Division of Enforcement for AI, as well as in other agencies such as the Commodity Futures Trading Commission ("CFTC"), would be even more beneficial.

The federal government has started to focus on the need to hire AI professionals, but it must think bigger and broader to even keep pace with the well-funded and highly motivated industry. For example, earlier this year, the White House issued a statement recognizing the need for action to strengthen AI oversight. The statement outlined aspirations to hire 100 professionals who will be responsible for the trustworthy and safe use of AI across industries, not just financial services, and states that the 2025 budget includes $5 million for government-wide AI training. While this is certainly a good first step, it is far too small, especially considering that the government and public sector is starting from the bottom with regards to investment in AI-related human capital (see Chart 1). Moreover, it is dwarfed by the billions of dollars being dedicated to AI development by private sector financial firms.

Chart 1

Figure 9: Where AI leaders are most numerous (% weight of leaders within each surveyed industry)

Retail/consumer goods
28%

Automotive/manufacturing
28%

Life science and healthcare
20%

Media/entertainment
19%

Telecommunications
18%

Power and utilities
18%

Oil and gas
18%

Financial services
14%

Technology
8%

Logistics/transport
7%

Government/public sector
7%

Source: MIT Technology Review Insights survey, 2022

3. Recognize and address the inherent data problems that permeate AI.

Data serves as a critical cornerstone for AI systems. The programs and code that operate within AI systems require data to make decisions. There is no question that this data represents immense opportunities to create systems that improve upon the analytical capabilities and decision-making of an individual or team of people. Such systems could consider more data, with less bias or distraction, and potentially make far better and fairer decisions to benefit all stakeholders in a financial decision.

However, there are a range of problems that currently exist with most datasets in existence today, including bias, challenges with third party data providers, and the need for consumer protection. Regulators must remain keenly focused on these data risks to appropriately protect consumers and financial stability, but also seek to improve datasets so that AI systems can realize their full potential in the future.

- <u>Bias stems from a range of factors and is a key challenge for AI systems</u>. Examples of bias include interaction bias, where AI absorbs bias from the users it interacts with; latent bias, due to correlations inherent in datasets; and selection bias—which occurs when datasets over- or under-represent certain groups. It can also facilitate the intentional targeting of groups most vulnerable to exploitation and tailor products, services, and messaging in a way that extracts wealth from vulnerable populations. Finally, the rapid expansion of digitalization and data availability has concentrated the data that is available to make decisions in recent years, increasing the chance for recency bias.

- <u>Third-party data provider challenges are widespread throughout financial services companies</u>. While some financial companies may have the financial and technical resources to develop proprietary models or use proprietary data, others may choose to pool resources or purchase data and models from vendors. This leads to potential challenges with data sovereignty and security, especially if it is stored in the cloud and the physical data facilities are in another jurisdiction.

- <u>Data privacy is a constant and increasing challenge</u>. Financial services companies may violate customers' privacy rights by inadvertently, and without specific consent, gathering publicly available customer data for profiling and prediction. Data constraint risks occur because some internal and customer data is private and confidential. Its use to train generative AI models may unintentionally expose data externally.

4. Develop a pre-approval process for acceptable applications and usage of AI.

We recommend that the financial regulators put in place a system of pre-launch testing and evaluation, as well as continuous monitoring for AI that is deployed for use in financial companies. Such a framework of transparency and accountability will support the goals of protecting consumers and financial stability.

Pre-testing should be required before AI systems are deployed in finance. The testing must include not only assessments of efficacy and reliability but also resistance to hacking. A testing and pre-approval paradigm is important for all AI technology, but especially important for AI technology that is outward facing, not just AI used by financial firms to make internal operations more efficient. Outward-facing AI has the most chance of causing harm to consumers.

While we are not aware of a pre-approval requirement that is currently employed for AI systems, a pre-approval regulatory role is familiar in a general sense. For example, the SEC pre-approves securities offerings, not on the merits but in terms of making sure there is adequate disclosure of all material information about the company and its business model. Additionally, the CFTC regularly assesses new products in the derivatives market. These examinations are carried out with a focus on safeguarding the market's stability, ensuring customer protection, and preserving the overall financial integrity of the derivatives market.

5. Increase regulatory standards and enforcement to punish and deter violations, recidivism, and the attitude that such behavior is simply a cost of doing business.

To punish and deter the inevitable abuses of AI technology by bad actors, enforcement capabilities, tools, and sanctions must be dramatically increased throughout the financial industry. Similarly, fines and other penalties must be large enough to prevent bad behavior before it starts or at least stop it from continuing and to prevent a "cost-of-doing" attitude within the industry. To be effective, the enforcement policy must also prioritize accountability for the managerial individuals responsible for violations, not just the entities or low-level employees.

The SEC has started to routinely analyze the industry's use of AI. In late 2023, the SEC's Division of Examinations sent investment advisers requests for information regarding AI-related marketing documents, algorithmic models used to manage client portfolios, and contingency plans for system failure and reports on AI systems causing regulatory or legal issues. Also, the SEC's Division of Examination's priorities for 2024 included automated investment tools, artificial intelligence, and trading algorithms or platforms, and the risks associated with the use of emerging technologies.

In a few areas involving AI in financial services, useful standards are emerging:

- First, robo-advisers employ algorithms to provide investment advice, in theory matching the financial products available to the investor and the attributes of the investor using the robo-adviser. The problem is that firms may use a biased matching or ranking algorithm, prioritizing what is best for the firm rather than investors, including investments that allow the firm to receive more compensation than it would have had if the algorithm had chosen other investments.

  The SEC's predictive data analytics rule would require broker-dealers and investment advisers to eliminate, or neutralize the effects of, certain conflicts of interest associated with their use of AI-like technologies in their interactions with investors. The rule is necessary to prevent securities professionals from using predictive data analytics, digital engagement practices, and gamification in a way that induces investors to engage in a series of transactions that are not in their own interest and that have the potential to turn retail investors into investing addicts.

- Second, the SEC is working to protect investors who are susceptible to AI-based fraud and scams (here, here, and here). Firms may market their services to investors based on their use of AI, with claims that investors can't lose because the firm's investment strategy is backed by the use of artificial intelligence.

In contrast, as mentioned earlier, the federal banking regulators and the CFPB said that existing tools and laws related to third parties are sufficient to prevent AI failures from harming consumers or the financial system. We encourage careful attention to be paid to all areas of the financial industry to watch for additional illegal or deceptive activities that arise and look for areas where additional rules and oversight need to be added to protect consumers and financial stability.

6. Enhance public transparency around the enforcement of AI rules and regulations.

Increased transparency is necessary to protect consumers from the hidden dangers of AI in financial services. The SEC has moved in the right direction with cases against companies that make unfounded claims about their usage of AI, but the work is not done. The next step may be to require standard disclosures by financial companies about their usage of AI so customers can make their own informed decisions. However, it is unlikely that Main Street Americans know how to search for SEC enforcement actions. The financial regulators must proactively work to make this information easily accessible for regulators, businesses, financial services companies, or other members of the public who want to use it.

The [CFPB's new registry](#) of recidivist companies and individuals could help in this effort or serve as a model for tracking AI companies that break the law and making that information easily available to the public. The CFPB's new registry was developed to bring together disparate enforcement actions and court orders related to consumer protection into a single system to make it easier for consumers, investors, creditors, businesses, and other members of the public to find information about companies that have broken consumer laws. A similar system is needed to collect and make available information about unlawful and discriminatory AI companies.

Conclusion

Microsoft's CEO wisely [summarized](#) the challenge and potential ahead:

> I would argue that perhaps the most productive debate we can have isn't one of good versus evil: ***The debate should be about the values instilled in the people and institutions creating this technology.***

We urge the financial regulators to seize this opportunity and work to ensure that AI contributes to a better economy, financial system, and future for everyone.

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Better Jobs | Better Economic Growth
Better Lives | Better Communities

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