

MEMORANDUM

To: Members of the Committee on Financial Services
From: Majority and Minority Committee Staff
Date: November 26, 2024
Subject: December 4, 2024, Full Committee Hearing entitled, “Innovation Revolution: How Technology is Shaping the Future of Finance.”

On Wednesday, December 4, 2024, at 10:00 a.m. the House Committee on Financial Services will hold a hearing in 2128 Rayburn House Office Building titled “Innovation Revolution: How Technology is Shaping the Future of Finance.” The following witnesses will testify:

- **Denelle Dixon**, CEO and Executive Director, Stellar Development Foundation
- **Avlok Kohli**, CEO, AngelList
- **Nathan McCauley**, CEO and Co-founder, Anchorage Digital
- **Henry Ward**, CEO and Co-founder, Carta
- **Alan Butler**, Executive Director, Electronic Privacy Information Center

Background

Innovation is central to human progress. It has allowed individuals to live longer, healthier, and more productive lives. Moreover, innovation has been central to economic growth and prosperity in the United States, when harnessed responsibly. There are several definitions of innovation and all of them coalesce around the concept that innovation is a process, procedure, product, or service that has been improved through the use of technology. Innovation involves risk-taking and entrepreneurship by individuals and businesses, including small businesses, as well as government, private sector, and public support.¹ Changes initiated by innovation can cause disruption, where certain business models may fail, and consequently impact industries, government, and society. Over time, however, the continuous search for improved ways of doing things will drive human learning and, ultimately, economic, social, and cultural prosperity.²

Innovative Technologies in Financial Services

Financial technology companies (fintechs) are offering innovative financial products and services to meet evolving consumer demand. The term “fintech” is broad, encompassing technologically enabled innovation that supports new business models, applications, processes, or products with an associated material effect on financial markets and institutions and the

¹ Mercatus Center, James Broughel, Technological Innovation and Economic Growth: A Brief Report on the Evidence (Oct. 2019), <https://www.mercatus.org/system/files/broughel-technological-innovation-mercatus-research-v1.pdf>.

² *Id.*

provision of financial services.³ Generally, a fintech firm employs technology to with the goal of enhancing financial services for consumers, businesses, and/or the government. The range of services offered by fintechs is equally broad. Fintech firms may offer products and services in different segments of financial services – including payments, insurance, regulatory and supervisory functions, and cybersecurity, among others. The development of new financial products and solutions by entrepreneurs has the potential to be transformative in all financial services segments, when done responsibly.

Many legacy financial institutions also utilize technology, or work with a fintech firm, to bolster their use of technology with the goal of enhancing their services, reaching new customers, and lowering costs to consumers. For example, banks and credit unions often partner with third-party vendors to meet the evolving needs of consumers and businesses of all sizes. Such partnerships can expand access to, and reduce costs of, financial services but can also present risks. If done responsibly, these partnerships can expand opportunities in the form of access to financial services to households and businesses who may be traditionally underbanked or unbanked.

Blockchain Technology & Digital Assets

Blockchains and their related digital assets have the potential to serve as the building blocks of the next generation of internet technology. Blockchains enable the creation of networks that can facilitate new, cooperative ways to offer services, like access to financial products, social networks, and shared computing systems. User-developed, controlled, and owned networks could one day offer an alternative to existing networks and services offered by large companies and other centralized actors. However, the benefits of decentralization may not be fully realized in current use cases.

These democratized networks may allow users greater autonomy, privacy, and control over their activities on the internet, as well as potentially reduce costs in accessing these services. Digital assets associated with blockchains have so far been used for the development and operation of these new networks. These digital assets have served as a medium of exchange within each network. Today, the total digital asset market capitalization is approximately \$3 trillion with Bitcoin and Ether comprising approximately 70 percent of the market.⁴

Stablecoins are a type of digital asset designed to offer price stability. Stablecoins are pegged to another asset's value. The most popular stablecoins are currently pegged to the U.S. dollar. Stablecoins, as the name implies, are intended to be less volatile than other digital assets and sufficiently stable to enable them to be used in a similar manner to currency.

³ Financial Stability Board, Financial Innovation (Last updated: Oct. 22, 2024), *available at* <https://www.fsb.org/work-of-the-fsb/financial-innovation-and-structural-change/financial-innovation/>.

⁴ CoinMarketCap. "Today's Cryptocurrency Prices by Market Cap." (Nov. 19, 2024), *available at* <https://coinmarketcap.com/>

Today, there are approximately 200 stablecoins, collectively worth more than \$191 billion. The most popular stablecoin is Tether (USDT) with a \$128 billion market capitalization, followed by USD Coin (USDC) with a \$43.1 billion market capitalization.⁵

To date, most blockchain innovation has occurred outside federally regulated sectors. However, tokenizing real-world assets using blockchain technology could mark the next significant advancement for financial markets. Tokenization is the process by which an entity creates a unique, digital representation of an asset that can be transacted and stored using blockchain technology.⁶ Consequently, tokenizing a specific asset can help increase liquidity, enhance price discovery, increase transparency, increase access, enable fractional ownership, among other things. Tokenization also presents its own considerations and risks. For example, for tokenization projects that are completed on the blockchain, there may be challenges with interoperability, as “assets created on one blockchain are not compatible with those on another.”⁷ Tokenization may also present systemic risk to the financial system.⁸

Artificial Intelligence and Machine Learning

While there is no agreed-upon definition for AI, Congress and regulators have raised the importance of defining shared terms for AI. In December 2020, the National Artificial Intelligence Act of 2020, enacted as part of the William M. (Mac) Thornberry NDAA for Fiscal Year 2021, defined AI as “a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations or decisions influencing real or virtual environments. AI systems use machine and human-based inputs to, (A) perceive real and virtual environments; (B) abstract such perceptions into models through analysis in an automated manner; and (C) use model inference to formulate options for information or action.”

Beginning in 2022, the public began to understand how artificial intelligence (AI) not only could change the lives of individuals but could revolutionize every aspect of the economy; depending on how it is harnessed, this technology could present major benefits and risks to society. The most recent development in AI technology is “Generative AI” or Gen AI. The Committee recognized the significant impact of Gen AI, having previously examined AI during the 116th and 117th Congresses in nearly a dozen different hearings held by the Task Force on Artificial Intelligence.⁹

In the 118th Congress, the Committee continued to examine the benefits, risks, and consequences of AI’s use in financial services and housing sectors. In January 2024, Chair McHenry and

⁵ Stablecoin Tokens by Market Capitalization (Nov. 18, 2024), available at <https://coinmarketcap.com/view/stablecoin/>.

⁶ What is tokenization?, MCKINSEY & COMPANY, (Mar. 6, 2024), available at <https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-tokenization>; Anshika Bhalla, A Quick Guide to Fungible Vs. Non-Fungible Tokens, BLOCKCHAIN COUNCIL, (Dec. 9, 2022), available at <https://www.blockchain-council.org/blockchain/a-quick-guide-to-fungible-vs-non-fungible-tokens/>.

⁷ Paul Tierno, *Tokenized Assets*, CRS (May 20, 2024).

⁸ *Id.*

⁹ U.S. House Committee on Financial Services, Waters and Foster Announce New Task Force on Artificial Intelligence (May 9, 2019), <https://democrats-financialservices.house.gov/news/documentsingle.aspx?DocumentID=403738>.

Ranking Member Waters established the bipartisan AI Working Group (Working Group).¹⁰ The Committee explored how AI is impacting the financial services and housing industries, including the development of new products and services, fraud prevention, compliance efficiency, and the enhancement of supervisory and regulatory tools, as well as how AI may impact access and affordability in housing and insurance, and how AI may impact the financial services workforce. The Committee also focused on how existing regulation addresses the use of AI and how lawmakers and financial regulators can ensure that any new regulations consider both the potential benefits and risks associated with AI.

Innovation-Forward Regulation

Regulatory agencies retain an important role in fostering responsible innovation and, after evaluating benefits and risks, they themselves should utilize the latest technologies and innovative supervisory tools to ensure they are carrying out their mandates in an efficient and effective manner.

To evaluate innovations by regulated institutions and firms and assist industry in pursuing responsible innovations, as well as to help modernize their internal operations, many agencies have established offices of innovation (or an equivalent office under a similar name). These offices and their mandates differ from agency to agency. Some agencies are more external facing while some are focused exclusively on internal agency operations, depending on the leadership of the particular agency.

Legislative Proposals

- H.Res. ___, Expressing the sense of the House of Representatives with respect to the use of artificial intelligence in the financial services and housing industries (McHenry/Waters)
- H.R. ___, the AI Act of 2024 – The bill is a comprehensive study bill that directs the federal financial regulators to examine and report on current uses of AI technology in their respective markets, the benefits and risks of those uses, and internal use by agencies. The bill directs them to examine regulations that impact AI use and roadblocks to adoption by the agencies. The bill also directs the agencies to collect public input to inform the drafting of the report and provide recommendations to Congress to facilitate the responsible adoption of AI within the financial services industry. (Waters/McHenry)

¹⁰ U.S. House of Representatives, “McHenry, Waters Announce Creation of Bipartisan AI Working Group,” House Financial Services Committee, (Jan. 11, 2024), <https://financialservices.house.gov/news/documentsingle.aspx?DocumentID=409108>