Michelle W Bowman:Embracing innovation

Speech by Ms Michelle W Bowman, Vice Chair for Supervision of the Board of Governors of the Federal Reserve System, at the Wyoming Blockchain Symposium 2025, Teton Village, Wyoming, 19 August 2025.

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Good afternoon and thank you to the organizers of the 2025 Wyoming Blockchain Symposium for inviting me to speak to you today.[1] It is an honor to be included in this year's event, which is being held at a critical moment for American leadership in the digital asset space. We are at the beginning of what appears to be a seismic shift in the way we think about money, value, and the fabric of our financial system. This shift is not just about incremental changes or tweaks to the existing system. What we are witnessing has the potential to fundamentally transform the way we live, work, and interact in society.

It is inspiring to be together with all of you, as thought leaders engaged in developing technologies that could help shape the financial system in the future. You don't need a tech background to appreciate the opportunity that blockchain provides to the financial system.

Financial services innovation drives faster, safer, cheaper, and more customized products that more efficiently meet the needs of consumers and businesses. Digital processes like wire transfers and ACH disrupted the need to move large amounts of physical currency and other hard assets, making the system more efficient and safer. Through technology, there is opportunity to transform how we think about transferring assets.

Throughout recent history, whether previous transformations involved industrialization, communications, or the internet, each of these advances had a profound and lasting impact on our society. While the future is unknown and unknowable, I expect we will look back at some point to consider the impact of blockchain, AI, and quantum computing and marvel at the transformation of everyday business processes. Time will tell, but the opportunities and possibilities that lie ahead may be profound.

Of course, you know better than most that bank regulators approach technology and periods of change with caution and skepticism, concerned about rapid growth, new business models, greater interconnectedness and interdependence, often focusing only on the risks. But risks may be offset or at least determined to be manageable when we recognize and consider the potentially extensive benefits of new technology.

Today, I'd like to address the Federal Reserve's approach to thinking about technology and tools like blockchain in context of bank supervision, including recent developments, the cost of supervisory focus on "reputational risk," and principles for a tailored regulatory framework that accommodates technology.

Reframing the Regulatory Mindset

Bank regulators work to promote safety and soundness in the financial system through regulation and supervisory practices. Our goal is not just a safe and sound banking system, but one that also serves its intended purpose of supporting consumers, businesses, and communities, and fostering economic growth. To accomplish this goal, regulators strive to strike a balance between managing risks that threaten safety and soundness, while also creating an environment that allows new technologies to take root and grow.

Innovation outside the banking system often complements the development and use of technology within the banking system, and often far outpaces that growth. As you're all aware, many groundbreaking tech innovations have been pioneered by developers outside of the traditional banking system.

Developments in the Banking System

We are seeing a number of promising developments in the banking and financial system, and I'll start with tokenization.

While progress on tokenization is moving ahead, it's helpful to identify and understand the problem that it is intended to solve. One clear friction is in the transfer of asset ownership, which includes both completing the asset transfer-which may involve re-registering securities, or transferring physical assets-and coordinating the timing of the purchase and sale. Asset transfer frameworks are designed to minimize the risk of transaction failures, and have historically relied on escrow agents and manual processes. Tokenization has the potential to facilitate faster ownership transfer, mitigating some of these well-known risks and potentially lowering costs in the process.

Tokenized assets enable a transferor to pass title without changing a custodian or moving any physical security or asset. Many banks and international organizations have begun projects to develop this technology, but we have not yet seen broad adoption. It is possible that we could see a "tipping point" where the processes themselves are well-established, and legal frameworks have been updated to permit a wider range of activities relying on the new technology, and tokenized asset transfers become more of a market standard.

There are other potential advantages to tokenization, including expanding access to capital markets and facilitating near real-time payments. The speed and cost of wholesale payments, especially internationally, is a longstanding problem that tokenization could help to address. Banks of all sizes, including community banks, can benefit from efficiency gains that flow from asset tokenization. New technology and processes can open the door to direct, faster, and lower cost payments.

While tokenization may be part of the solution to a number of known frictions in the banking system, the blockchain technology that it relies upon has already changed how banks seek to engage with their customers. For example, while digital assets have been considered to be risky, many banks are improving their tech stacks and security infrastructure to provide digital asset custody services to a wider range of retail customers. Very few bankers, and even fewer regulators, anticipated that the market would accommodate this development even just a few years ago. Yet we've seen much progress and a growing appetite for traditional bank engagement in this space. We are also seeing positive signs in the evolution of the digital asset user experience, making digital assets more accessible and easier to use.

One recent development-Congress passing the GENIUS Act and the President signing it into law-has brought stablecoins to the forefront of many discussions. And they are now positioned to become a fixture in the financial system, with implications and opportunities for the traditional banking system, including the potential to disrupt traditional payment rails. Congress tasked the banking agencies with creating a regulatory framework for stablecoins, and we are working with our colleagues in the other agencies to move forward.

It is essential that banks and regulators are open to engaging in new technologies and departing from an overly cautious mindset. Regulators must understand new products and services and recognize the utility and necessity of embracing technology in the traditional financial sector.

So how do we accomplish this? Some of you may have had direct experience with regulators and the banking system, as you attempted to engage in this type of partnership with banks through the introduction of new technology and services. I am sure that many of you were not satisfied with these interactions. When you start from a world of possibility, where you move fast and break things to make rapid improvements, you may struggle with the complex and rigid regulatory constructs familiar to bankers and regulators. In this world, inertia can easily set in and pose resistance to anything not deemed within the realm of "traditional" banking activities.

Despite this past inertia, change is coming.

Bank regulators are taking important steps to create a framework for digital assets and the adoption of blockchain technology within the banking system. These steps will promote accessibility to banking products and services by removing supervisory impediments that have stood in the way of bank relationships. I am also encouraged by the promise of this technology, by its ability to solve problems and improve the efficiency of the traditional financial system.

To this point, I have noted several use cases that have already been adopted or are in development within the banking system, but I would also like to encourage the industry to engage with regulators to help us understand blockchain and its potential to solve other problems. What is the value proposition of any new product or approach? What problem is it intended to address? And how should regulators consider both the risks and benefits, so we can provide a path to allow its use within the banking system?

We have already seen some initial benefits of bank AI adoption, and I continue to be encouraged by the significant ongoing investments being made in AI and in machine learning. These technologies have the potential to transform how business is conducted, including the way we detect and prevent fraud, manage risk, and provide customer service. During a recent banking conference at the Fed, Sam Altman, the CEO of Open AI, joined me for a fireside chat on AI in the banking and financial sector.[2] One highlight from our discussion was the two-sided nature of how technology can impact banking transactions-just as AI can undermine customer verification methods designed to identify and mitigate fraud, AI tools can also be leveraged to detect and mitigate fraud.

I see a similar challenge with blockchain technologies. Some bankers have expressed concerns about new technologies posing a threat to traditional business models and practices. But the banking system is constantly evolving, and technology can change the banking system regardless of how banks and regulators choose to respond. We must choose whether to embrace the change and help shape a framework that will be reliable and durable-ensuring safety and soundness and incorporating the benefits of both efficiency and speed-or to stand still and allow new technology to bypass the traditional banking system altogether. From a regulator's perspective, the choice is clear.

I am open to these discussions, and I look forward to learning more. Many of you have a great deal to share and have new ideas about the best regulatory approach to blockchain and digital assets. Let me start with a specific request on fraud: how can new technologies be leveraged to fight fraud? Fraud is a major challenge in the financial services sector, and if blockchain or other new tools could mitigate it, we should explore those use cases. If fraud can be addressed using new technology, we should make sure that the regulatory framework does not stand in the way. I see this as an exciting opportunity for collaboration between industry and the Fed.[3]

The promise of technology and advances like AI are already positioned to impact parts of the banking and financial system. Ideally, changes will occur with the willing embrace of regulators-allowing use cases to proliferate in a way that benefits the banking system. If this is not our approach, then we risk the banking system becoming less relevant to consumers, businesses, and the overall economy. As a result, the banks will play a diminished role in the financial system more broadly. Those who follow developments in bank regulation have hopefully recognized some positive steps that demonstrate our commitment to embrace change. I am committed to changing our culture and attitude toward the adoption and integration of technology and new products and services.

The Hidden Role of Reputational Risk

In late June, the Board announced that reputational risk would no longer be considered in our supervisory process.[4] To implement this lasting change, we are updating guidance, examination manuals, handbooks, and other supervisory materials to ensure the durability of this approach, which is a critical step in addressing the problem of de-banking. I am also considering whether we need a regulatory change to provide greater transparency and certainty about this approach. It is not the role of examiners or policymakers to direct which customers or industries to serve or which products to offer. That decision lies solely within the purview of bank management, limited by the safety and soundness of the institution,, the legal activities of its customer, and risks, if any, to financial stability.

Over time, "reputational risk" emerged as a priority area that policymakers emphasized for examinations. Exams or reviews focused on reputational risk have often lacked a sufficient nexus to financial risk and safety and soundness considerations that are the appropriate focus of our supervisory activities.

Let me be clear. We must adopt an approach that does not penalize or prohibit a bank from banking a customer engaged in legal activity. This approach must allow and encourage banks to provide banking products and services to any legal business, without disfavoring any particular viewpoints, businesses, or industries.

The Importance of Outreach

The industry-whether traditional finance, community banking, or digital assets-should expect a constructive engagement with our supervisors when discussing strategies and approaches for innovation. As regulators, we must engage in a way that enables our supervisory teams to understand the technology or innovation under consideration and have an open-minded view about the benefits and possibilities of a new approach, while also understanding effective mitigation strategies to address any risks. Banks should be encouraged to explore new technology, to engage in discussions with their regulators about how they can be deployed, and what reasonable supervisory expectations should apply. In this context, a healthy dialogue and a commitment to learning ensures the bank and examiner relationship can be collaborative rather than antagonistic in tone.

Innovators, banks, and regulators must develop a constructive relationship, and this relies on a commitment to ongoing outreach. As I have demonstrated throughout my tenure as a regulator at both the state and federal levels, I am committed to outreach that enhances my understanding of industry preferences, challenges and better ways to engage with both developers and adopters. We should build an examination workforce that requires skills development and informed judgement to address evolving business preferences, practices and expectations. In a step toward doing so, last week, I announced that the Fed's "novel supervision" activities would be reintegrated into our Reserve Bank examination staff. This will reestablish the role of the normal supervisory process in monitoring banks' so-called "novel activities."[5]

Our approach should consider allowing Federal Reserve staff to hold de minimus amounts of crypto or other types of digital assets so they can achieve a working understanding of the underlying functionality. While there are many resources available to learn about these financial products, and we will soon be establishing a framework for supervising issuers of these assets, there's no replacement for experimenting and understanding how that ownership and transfer process flows.

I certainly wouldn't trust someone to teach me to ski if they'd never put on skis, regardless of how many books and articles they have read, or even wrote, about it. We should consider whether limits on staff investment activities may be a barrier to recruiting and retaining examiners with the necessary expertise and for existing staff to better understand the technology.

Building a Tailored and Proportional Regulatory Framework

Going forward it will be necessary to continue to implement a tailored approach to these new technologies in our supervisory activities, an approach that balances the supervisory and regulatory expectations in a way that is commensurate with risk.

What would this look like in practice? It needs to include regulatory certainty, tailoring, safety and soundness, consumer protection, and maintaining America's reputation for providing an open environment for innovation. Regulators should abide by these principles in developing this framework.

The first principle is essential. That is regulatory certainty. Justifying investing in new blockchain development specifically for the banking industry, or even repurposing existing blockchain technologies for this sector, requires significant investment. Why would you make that investment without a clear understanding about how regulators will evaluate new use cases in a highly regulated industry? Would you choose to partner with banks, knowing that this will bring regulatory scrutiny and uncertainty, or would you develop alternatives outside of the banking system? Your industry has already experienced significant frictions with bank regulators applying unclear standards, conflicting guidance, and inconsistent regulatory interpretations. We need a clear, strategic regulatory framework that will facilitate the adoption of new technology, recognizing that in some cases, it may be inadequate and inappropriate to apply existing regulatory guidance to address emerging tech.

Having clear and transparent rules is not effective if these rules are unnecessarily burdensome and restrictive. So, my second principle is that rules must be well-calibrated and tailored to address risks. Well-calibrated regulation promotes responsible innovation while also aligning incentives for long-term growth and stability. Tailoring rules and supervision requires regulators to approach each use case based on particular facts and circumstances, rather than applying expectations designed for an imaginary "worst-case" scenario that differs from the actual use case. We cannot adopt a one-size-fits-all approach. Regulators must recognize the unique features of these new assets and distinguish them from traditional financial instruments or banking products.

A third principle is that frameworks must be consistent with generally applicable rules and requirements. Customer-facing products must comply with consumer protection laws, including those prohibiting unfair, deceptive, or abusive acts or practices. We must think carefully about appropriate regulations to protect consumers and investors, maintain bank safety and soundness, and preserve the stability of the financial system. Any legal framework must also include appropriate Bank Secrecy Act and anti-money-laundering requirements, to fulfill the important policy objectives of these requirements.

Finally, we need to build a framework that allows the United States to continue to be the best place in the world to innovate. Failing to do so could jeopardize American competitiveness over the long run. Regulators have taken preliminary steps to support blockchain technology within the banking system, as well as to eliminate deterrents for banks to provide services to the digital asset industry. I am confident that with the benefit of ongoing outreach and education we will build a framework that is fair, efficient, and transparent.

Closing Thoughts

We stand at a crossroads: we can either seize the opportunity to shape the future or risk being left behind. By embracing innovation with a principled approach, we can define the course of history and fulfill our responsibility to promote the safety and soundness of the banking system and financial stability.

We are mindful of the potential risks and vulnerabilities that result from rapid transformation. We are cautious about the unintended consequences, and our mindset, and policies guide us toward minimizing risks. But we must pay equal attention to the benefits side of the equation. Innovation and regulation don't need to be on opposite ends of the spectrum. In fact, they complement each other. A more modern, efficient, and effective financial system furthers key regulatory objectives-promoting safe and sound banking operation, financial stability, and economic growth.

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1 The views expressed here are my own and are not necessarily those of my colleagues on the Board of Governors of the Federal Reserve System or the Federal Open Market Committee.

2 Michelle W. Bowman, "Fireside Chat with OpenAI CEO Sam Altman," conducted at the Integrated Review of the Capital Framework for Large Banks Conference, Washington, D.C., July 22, 2025.

3 See Board of Governors of the Federal Reserve System, Office of the Comptroller of the Currency, and Federal Deposit Insurance Corporation, "Federal Bank Regulatory Agencies Seek Comment to Address payments and Check Fraud," press release, June 16, 2025. Comments on the RFI are due on September 18, 2025.

4 Board of Governors of the Federal Reserve System, "Federal Reserve Board Announces That Reputational Risk Will No Longer Be a Component of Examination Programs in Its Supervision of Banks," press release, June 23, 2025.

5 See Board of Governors of the Federal Reserve System, "Federal Reserve Board Announces That It Will Sunset Its Novel Supervision Program And Return to Monitoring Banks' Novel Activities Through the Normal Supervisory Process," press release, August 15, 2025.