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Payments in the Age of AI Agents

Remarks by

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Thank you for inviting me to speak here today.¹ Last year at Sibos I leaned into the conference theme and discussed how a range of emerging technologies could shape the next frontier in global payments.² Consistent with this year's theme, today I want to focus more specifically on the state of artificial intelligence (AI) in payments and raise a few questions about how this technology could change the way payment systems operate.

As I have discussed before, within the financial sector, the payments industry has long been at the forefront of using AI to improve operations.³ There is a rich history of deploying machine learning to combat payments fraud. The industry was also an early adopter of large language models (LLMs) for payment reconciliation and similar tasks. Now it is helping to build foundational infrastructure for AI agents to operate more broadly in the economy. These agents can plan and execute multistep processes using LLMs, enabling those agents to transact autonomously.

Given the global audience for this event, I'll start by discussing the implications of AI for the efficiency and security of cross-border payments. Then I will turn to a potentially transformative topic for the payments industry—agentic commerce.

¹ Thank you to Jeff Allen and Micah Gertzog of the Federal Reserve Board for their assistance in preparing this text. The views expressed here are my own and not necessarily those of my colleagues on the Federal Reserve Board or the Federal Open Market Committee.

² See Christopher J. Waller (2025), "The Next Frontier of Payments Innovation," speech delivered at Sibos 2025, Frankfurt, Germany, September 29, <https://www.federalreserve.gov/newsevents/speech/waller20250929a.htm>.

³ See Christopher J. Waller (2025), "Technological Advancements in Payments," speech delivered at the Wyoming Blockchain Symposium 2025, Teton Village, Wyoming, August 20, <https://www.federalreserve.gov/newsevents/speech/waller20250820a.htm>.

Potential for Cross-Border Payment Efficiency and Security

Much has been said about how stablecoins can potentially improve cross-border payments.⁴ So what role can AI play? Combating illicit finance is one of the clearest examples of where AI can drive efficiency and security gains. This work is critical in cross-border payments, where threat actors can exploit the seams between jurisdictions. LLMs have contextual awareness that can greatly improve the accuracy of sanctions screening and anti-money-laundering systems. Research has demonstrated that they can significantly reduce false-positive alerts for illicit activity.⁵ This frees up resources to examine more complex, high-risk cases and allows legitimate transactions to proceed with less friction. Given the velocity of modern payment systems, I expect LLMs to augment, rather than replace, faster, more traditional anomaly detection methods.

The effect of AI on cybersecurity is another important consideration for payment systems globally. Many are worried that AI could increase the volume and sophistication of cyberattacks. These concerns are well founded. Nearly every week we see new model releases pushing the boundaries of cybersecurity or AI agents escaping their test environments and breaching external systems. In the payments world, a successful cyberattack against a highly interconnected payment infrastructure could significantly disrupt international commerce.

But AI isn't just an offensive tool. Cyber professionals are optimistic about the use of AI for cyber threat detection and exposure management, among other important

⁴ See Christopher J. Waller (2025), "Reflections on a Maturing Stablecoin Market," speech delivered at A Very Stable Conference, San Francisco, California, February 12, <https://www.federalreserve.gov/newsevents/speech/waller20250212a.htm>.

⁵ See Jeffrey S. Allen and Max S. S. Hatfield (2025), "Can LLMs Improve Sanctions Screening in the Financial System? Evidence from a Fuzzy Matching Assessment," Finance and Economics Discussion Series 2025-092 (Washington: Board of Governors of the Federal Reserve System, September), <https://doi.org/10.17016/FEDS.2025.092>.

defensive tasks.⁶ AI can be used to support the development of new, more secure software and help catch vulnerabilities before they're introduced. However, there is clearly an asymmetry. Threat actors need to exploit only one key vulnerability, whereas payment system operators and service providers need to defend a large attack surface. That asymmetry is precisely why the industry must move deliberately to leverage AI in strengthening the safety of our trusted payment systems.

AI could also help facilitate the many layers of search and optimization required in sending money across borders. Payment routing involves finding the path that best balances cost, speed, and reliability. Similarly, cross-border payment service providers have complex foreign exchange conversion and liquidity mechanisms. They need to decide when and where to convert currency, whether to net offsetting flows, and so forth. If presented with the right data and criteria, AI agents have the potential to excel at solving these complex optimization problems, helping to improve the efficiency of cross-border payments.

Developments in Agentic Commerce

Let me turn to an emerging area of focus for the payments industry. At the beginning of the summer, I hosted an industry roundtable at the Federal Reserve that focused on agentic commerce, which involves using AI agents to make e-commerce purchases.⁷ Market participants broadly agree that agentic commerce is in an early phase, but it could significantly reshape commerce and payments if adoption scales.

⁶ See Iñaki Aldasoro, Sebastian Doerr, Leonardo Gambacorta, Sukhvir Notra, Tommaso Oliviero, and David Whyte (2025), "Generative Artificial Intelligence and Cyber Security in Central Banking," *Journal of Financial Regulation*, vol. 11 (April), pp. 119–28.

⁷ Additional information on the May 26, 2026, roundtable is available on the Board's website at <https://www.federalreserve.gov/paymentsystems/files/payments-innovation-roundtable-meeting-20260526.pdf>.

At a high level, there are two primary models of agentic commerce: agent assisted and agent delegated. In the agent-assisted model, a buyer uses an AI agent primarily for product search and discovery, but the buyer remains in control. They make the decisions, and they handle the payment. In the agent-delegated model, a buyer grants authority to an AI agent to shop and make payments on their behalf. The buyer may specify some constraints and set up guardrails, but the agent operates autonomously. For example, a buyer might give an agent access to a pre-funded virtual card with instructions to shop for groceries online based on past purchases.

Consumer-to-business transactions are seen as the first wave of agentic commerce, with agent-assisted use cases preceding more autonomous, agent-delegated ones. Because it introduces higher risks of unintended purchases, the delegated model requires a more extensive buildout of trust mechanisms and guardrails. I'll say more about these shortly. Consumers are likely to access agents in two common ways: through general-purpose agents offered by AI firms and through merchant-specific agents. As personal AI assistants gain traction, they too could become a natural fit for agentic commerce. To be useful to consumers, AI agents need broad, real-time knowledge of merchant inventories. Large online retailers are sharing their inventory data in different ways. Some work directly with AI firms to make their product catalogs available to third-party agents, while others surface that catalog data through their own shopping agents. Small and medium-sized merchants are being supported by e-commerce platforms, which are building tools to standardize their digital product catalogs and make them discoverable by leading agent interfaces.

While consumer shopping receives a lot of attention in this area, business-to-business (B2B) purchases may be especially well suited for agentic commerce. These purchases are often recurring and abide by a set of rules, such as approved suppliers and budget limits, which create natural guidelines for agents. Agents could also potentially negotiate terms with suppliers and develop payment strategies to optimize working capital. However, the higher transaction values typical in B2B commerce amplify the financial exposure from agent errors or unauthorized actions, so robust controls and monitoring systems will be essential. For B2B purchases, agents would need to be able to carry out payments on a diverse set of rails. Whereas payment cards dominate consumer e-commerce payments, businesses rely on a wider range of methods, including ACH, wire, instant payments, and cards.

To operate efficiently across these shopping contexts, agents will need to make micropayments along the way. Before completing a purchase, an agent might pay for LLM queries, price data feeds, and other API calls. Small machine-to-machine payments are not new, but they could reach a much larger scale if shopping agents are working around the clock at machine speed. Micropayments like these favor payment rails with lower flat fees.

The biggest barrier to scaling agentic commerce, particularly the agent-delegated model, is building sufficient trust among buyers and sellers. A few concrete challenges stand out: authentication, liability, and fraud. Agentic commerce transforms the payment authentication paradigm. The question shifts from proving that a buyer is an authorized payer to proving that an agent has the authority to pay on the buyer's behalf. Capturing this will require new authentication approaches. Liability in this context

comes down to a pretty simple question: Who is on the hook if an agent makes the wrong purchase? Current e-commerce liability frameworks—including network rules, consumer protection standards, and other regulations—could potentially be adapted for agentic commerce. But there may also be an opportunity to test and refine new approaches. For example, technical standards could be designed to give everyone a better understanding of what the buyer intended and how their agent carried it out. That shared understanding could help reduce the ambiguities that complicate many transaction disputes today. Finally, as in other contexts, fraud could undermine confidence in agentic commerce. Existing fraud detection and prevention systems, calibrated to human behavior, may not translate well to agents. As a result, fraud models and rules will need to be recalibrated to account for agent payment patterns.

Market participants are actively developing standards to address some of these trust challenges and related issues. Tech firms, e-commerce platforms, and payment service providers are building foundational protocols that standardize how agents interact with merchants and make payments. Card networks are also publishing technical specifications that enable AI agents to make secure payments on a payer's behalf. These specifications include methods of registering agents and logging cardholders' approvals to conduct agentic payments, among other functionalities. A key question is whether agentic commerce will migrate toward platform-specific or interoperable standards. Platform-specific standards are designed around a single ecosystem. Interoperable standards are designed to work across e-commerce systems, agent interfaces, and payment methods. In this sense, they could help to level the playing field for smaller merchants and payment providers seeking to operate in this space.

A related consideration revolves around open versus closed agentic commerce systems, which share similarities with open- and closed-loop payment networks. An open system in this context is one that allows a range of shopping agents on its platform. A closed system is one that requires using a specific AI agent. For example, an online retailer might require shoppers to use its proprietary AI agent and block other agents. Open systems support buyer choice and an active environment for developing new agentic commerce solutions. Closed systems give online retailers more control over what happens on their platforms and lead to more vertical integration. At this early stage, it is not clear which model will have the edge in shaping agentic commerce, but whichever gains traction could significantly influence how the market structure evolves.

I've presented what I believe are some of the most thought-provoking considerations for the payments industry as it helps to bring agentic commerce to market. But there is no shortage of issues that the industry will need to consider as this new mode of transacting matures. For example, what standards are still missing for agents to carry identity, consent, and payment credentials across the full e-commerce stack? What is the right balance between user convenience and purposeful friction in agent authorization? Will payment rails need to adapt in a future where agentic payments scale dramatically? These are questions worth pondering.

Looking Ahead

I am keenly focused on how new technologies can affect the structure and functioning of payment systems globally. While my comments today have focused on AI within the context of cross-border and e-commerce payments, AI agents may become integrated into a wide range of payment flows. Agentic transactions could materially

change the frequency and timing of payments, as well as other characteristics. Meeting this moment requires a proactive approach that balances innovation with the safety, integrity, and stability that underpin trust in payments. With all of this in mind, I am very interested to see how the payments industry, including many of you here today, adapts to the use of AI in payments.

Thank you.