Pushing through undercurrents

Technology's impact on systemic risk: A look at payments

As more financial institutions embrace digital innovation, risks emerge that could threaten the stability of the financial system. Some of these risks originate from a single sector. Either way, they could proliferate and become systemic without appropriate management.

To understand what these technology-driven risks look like, the World Economic Forum (the Forum) and Deloitte consulted over 100 financial services and technology experts in the development of a new report, Pushing through undercurrents. This group shared more specific perspectives on the forces behind technology-driven systemic risk in the payments sector. Here's a summary of what we learned. You can learn more in the *full report from the Forum, and the executive summary from Deloitte.*

Risk 1: Accumulation and securitization of "buy now, pay later" debt

What could go wrong?

Easy access to point-of-sale financing, paired with weak underwriting rules, may lead to overborrowing and spill over to the financial system through debt securitization. The risk is growing because:

- Weak credit controls create opportunities for impulse buying and easy accumulation of debt
- Limited reporting requirements for buy now, pay later (BNPL) debt limit the visibility of customers' total debts
- Securitization of BNPL debts could create contagion in the wider financial system
- The conflicting incentives of protecting customers and increasing sales may accelerate debt accumulation

This risk could become systemic if, for example, a recession hits—affecting customers' ability to repay their loans—when the volume of BNPL debt is at significant levels and a large percentage is securitized as subprime borrower debt.

What sectoral and regional forces could amplify the risk?

- Big Tech companies offering BNPL loans
- An absence of regulations in jurisdictions where BNPL financing is offered
- Low rates of financial literacy

How can the industry mitigate it?

Goal	Mitigation opportunities
Customer protection from overborrowing	• Establish safeguards to protect against overborrowing and misleading advertising • Develop codes of conduct for BNPL providers
Transparency on customers' ability to pay	• Improve data sharing among BNPL providers • Include BNPL data with credit bureau reporting

Risk 2: Security vulnerabilities of decentralized central bank digital currencies architecture

What could go wrong?

Central bank digital currencies (CBDCs), that run on decentralized ledger technology (DLT) widens the attack surface for malicious actors. The risk is growing because:

- DLT networks have many participants that hackers could exploit
- A bug or malfunction in a supporting DLT platform could cripple the system
- Side-channel attacks could be used to break into user wallets and steal customer funds

This risk could become systemic if, for example, a rogue nation-state launches a distributed denial-of-service cyberattack on the CBDC payment network of another country, causing outages of critical services.

What sectoral and regional forces could amplify the risk?

- A complex CBDC network architecture
- Interoperability with other networks
- A large number of participating institutions

How can the industry mitigate it?

Goal	Mitigation opportunities
User protection and data privacy	• Incorporate protection to end-user digital wallets challenges
Strong access control and network security	• Set up a tiered ledger system for CBDCs • Use quantum-resistant algorithms to protect CBDC systems
Cross-border security standardization	• Standardize CBDC security protocols

To learn more about technology's impact on systemic risk in payments, including examples, please see pages 48-59 of the full report.

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