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?**

<table>
<thead>
<tr>
<th>Goal</th>
<th>Mitigation opportunities</th>
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| **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?

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

## How can the industry mitigate it?

- 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

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