

What is Decentralized Finance (DeFi)?

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Gokce Gence
Solution & Project Director
Fineksus

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Decentralized Finance (DeFi) is a financial system built on public blockchains that delivers services like lending, trading, and payments without banks or other intermediaries. Instead, it uses smart contracts — pieces of code that automatically execute transactions — making services accessible to anyone with an internet connection.

Why DeFi Matters?

In recent years, the financial sector has been under pressure to become faster, more accessible, and less costly. Traditional financial systems, while robust, are often criticized for their complexity, high fees, and reliance on multiple intermediaries. Against this backdrop, Decentralized Finance (DeFi) has emerged as a new model for delivering financial services.

DeFi uses blockchain technology to create a system where services such as lending, payments, and trading are carried out without banks or brokers. Instead of trusted third parties, DeFi applications rely on smart contracts—computer programs that automatically execute agreements once conditions are met. The ambition is to build a borderless, transparent, and efficient financial ecosystem.

For banks and financial institutions, DeFi represents both an opportunity for innovation and a challenge to existing models of trust, risk management, and regulation.

DeFi and Traditional Finance: Similar Goals, Different Methods

Although DeFi presents itself as a disruption, many of its services are already familiar to the financial industry. The main difference lies in how these services are delivered.

- **Lending and Credit:** Traditional banks provide loans with assessments of creditworthiness. DeFi platforms allow users to lend and borrow crypto assets using collateral.
- **Trading Assets:** Traditional markets use exchanges and brokers. DeFi employs decentralized exchanges, where buyers and sellers interact directly through algorithms.
- **Payments and Transfers:** Cross-border payments in today's systems involve multiple intermediaries, often creating cost and settlement delays. DeFi offers stablecoins like for near-instant transfers, but questions remain about compliance and liquidity.
- **Investments and Funds:** While mutual funds dominate traditional finance, DeFi uses automated platforms to pool assets and generate optimized returns.
- **Custody:** In traditional finance, institutions safeguard assets. DeFi is often non-custodial, which means users themselves are responsible for managing their digital assets.

In essence, DeFi recreates many of the same services but does so on a new technological foundation.

What Makes DeFi Different

Several features make DeFi stand apart from traditional finance:

- **Trust Through Code:** Instead of relying on banks or regulators, rules are enforced automatically by smart contracts.
- **Permissionless Access:** Anyone with internet access can use these services, without restrictions based on geography or income.
- **Transparency:** Transactions are visible on public blockchains and can be audited in real time.
- **Composability:** Applications can be combined like building blocks to create new products and services.
- **Efficiency:** By removing intermediaries, DeFi seeks to lower costs and accelerate settlement.

These strengths highlight the innovation of DeFi, but they also expose weaknesses that institutions must carefully evaluate.

What are DeFi's Risks and Vulnerabilities

DeFi brings with it both traditional financial risks and new vulnerabilities created by its unique structure.

1. Market and Leverage Risks

DeFi lending often depends on over-collateralization. When markets decline, forced liquidations can quickly amplify downward spirals.

2. Interconnectedness and Contagion

DeFi protocols are closely linked. The collapse of the algorithmic stablecoin TerraUSD in 2022 showed how the failure of one product can trigger disruption across the entire ecosystem.

3. Operational and Technical Risks

Smart contracts, the core of DeFi, are not immune to flaws. Errors in code or deliberate exploits have repeatedly resulted in significant financial losses across the sector. Because blockchain transactions are irreversible and lack central oversight, funds lost in such incidents are rarely recovered. Large-scale security breaches have continued to raise questions about the maturity and resilience of DeFi infrastructure.

4. Governance Weaknesses

Governance tokens are designed to distribute decision-making, yet in practice influence is often concentrated among a small group of participants. This concentration creates vulnerabilities, as mechanisms such as flash loans have been used to temporarily gain control over governance processes and redirect funds.

5. Flash Loan and Oracle Risks

Flash loans allow large, uncollateralized loans to be taken and repaid within one transaction block. Although innovative, they have been exploited in manipulative attacks. Similarly, reliance on “oracles” to import data from outside the blockchain creates new points of vulnerability.

6. Systemic and Investor Risks

- DeFi remains largely focused on speculative crypto activity rather than tokenized real-world assets.
- Stablecoins have shown instability under stress, raising doubts about their role as reliable settlement assets.
- Retail investors often face heavier losses compared to larger and more experienced players.

Regulatory and Policy Challenges

DeFi does not fit easily into existing regulatory frameworks, creating several challenges:

- **No Clear Counterparties:** Without identifiable intermediaries, regulators face difficulties in assigning responsibility.

- **Anonymity and Borderless Nature:** The global reach of blockchain complicates oversight and enforcement.
- **Regulatory Gaps:** Approaches such as embedding compliance directly into protocols or holding governance token holders accountable may be necessary.
- **International Coordination:** To avoid regulatory arbitrage, a coordinated global framework is essential.

What DeFi Means for Banks and Financial Institutions

DeFi is still in an experimental stage. While it promises inclusion, transparency, and efficiency, its real-world benefits remain limited, and its risks are significant. For financial institutions, the most effective path forward is to approach DeFi with both caution and curiosity.

Practical steps include:

- **Monitoring DeFi developments** to identify risks and potential spillovers.
- **Exploring targeted use cases**, such as tokenization or blockchain-based settlement, where real benefits could be realized.
- **Engaging with regulators** to help shape frameworks that balance innovation with financial stability and compliance.

This balanced approach reflects the lessons of large-scale system integrations: success depends not only on technology but also on governance, oversight, and long-term operational resilience.

Conclusion

DeFi is an experiment in rethinking how financial systems can operate when technology replaces intermediaries. Whether it becomes a pillar of global finance or remains a niche innovation will depend on how effectively its risks are managed and how well regulation adapts.

For the financial sector, DeFi represents both an opportunity and a challenge. It demonstrates the importance of building future financial systems that are transparent, efficient, and inclusive. Institutions that understand DeFi's strengths while protecting against its weaknesses will be best positioned to lead in the next era of finance.