

A Comprehensive Study on Decentralized Finance (DeFi): Exploring Its Opportunities, Associated Risks, and Emerging Regulatory Challenges in the Global Financial Ecosystem

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Received 15 February 2026;

Accepted 7 March 2026;

Published 19 March 2026;

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ABSTRACT- Decentralized Finance (DeFi) has emerged as one of the most disruptive developments in the digital financial ecosystem. DeFi is a blockchain based on smart contracts, which wants to do away with the existing middlemen (banks, brokers, clearing institutions) and allow for peer-to-peer (P2P) financial transactions. DeFi's emergence has opened up new options such as financial inclusion, transparency, automation, cost reduction and global reach. But the ecosystem also confronts substantial hurdles such as smart contract weaknesses, liquidity hazards, market manipulation, governance issues and regulatory uncertainties. This report evaluates the architecture, prospects, hazards and the shifting regulatory frameworks of the DeFi ecosystem offering a full analysis of the ecosystem. It also analyses evolving worldwide regulatory responses and makes recommendations on how to reconcile innovation and financial stability.

KEYWORDS: Decentralized Finance, Blockchain, Smart Contracts, Cryptocurrency, Financial Inclusion, Regulation, Financial Stability

1. INTRODUCTION

The advent of blockchain technology has revolutionized the world financial ecosystem with decentralized solutions that do not involve a central intermediary. The Decentralized Finance (DeFi) is one of the most promising developments of the blockchain technology. It is a fast-growing ecosystem of financial applications built on top of distributed ledger networks and smart contracts. DeFi is a new financial system without banks, brokers and other central institutions. It allows clients to access financial products such as lending, borrowing, trading, insurance and asset management through decentralized protocols running on blockchain networks.

The growth of DeFi has been driven largely by the development of programmable blockchain platforms, most notably Ethereum, which allow the creation of self-enforcing smart contracts. These kinds of smart contracts automate the financial transactions, and reduce operational costs and the need for trusted intermediaries. DeFi has unlocked pathways for new financial innovation, transparency, and efficiency. Decentralized financial markets provide more accessibility, interoperability and composability, allowing developers to create innovative financial products by combining several protocols in a common ecosystem [Schär \(2021\)](#).

The massive growth of DeFi has raised a lot of interests from researchers, investors, financial institutions and regulatory bodies across the globe. The DeFi ecosystem encompasses a range of applications such as decentralized exchanges (DEXs), lending platforms, derivatives markets, stablecoins, and asset management protocols [Auer et al. \(2024\)](#). DeFi can disintermediate financial intermediation by replacing traditional financial institutions with financial infrastructures deployed via software. DeFi is a new paradigm of financial service delivery, which is similarly distinguished by openness, programmability and worldwide accessibility [Jiang et al. \(2023\)](#). DeFi can be revolutionary, but it is not without severe risks and obstacles. Smart contracts are prone to security flaws, flash loan attacks, oracle manipulation and governance problems which have caused considerable financial losses to users and platforms [Werner et al., 2021](#). Moreover, the growing interconnection of DeFi protocols has raised concerns of systemic risk and financial contagion in the digital asset markets [Kitzler et al., 2021](#). In addition, the lack of central control also results in regulatory issues for anti-money laundering (AML), know-your-customer (KYC) compliance, consumer protection, taxation and financial stability [Zetzsch et al., 2020](#).

With the growing popularity of DeFi in the global financial ecosystem, it is vital to take a holistic review of the opportunities, dangers and regulatory consequences. The research consequently seeks to examine the technological basis of DeFi, explore its economic and financial benefits, identify the risks associated and explore the rising regulatory concerns.

The research develops from contemporary academic literature and policy debates to advance knowledge of DeFi's role in defining the future of global finance.

2. LITERATURE REVIEW

Decentralized Finance (DeFi) is a major breakthrough in the financial technology space, using blockchain technology and smart contracts to deliver financial services without traditional middlemen. The idea took off after the emergence of blockchain platforms such as Ethereum, which enabled programmable smart contracts and decentralized applications (DApps). The DeFi is a financial ecosystem that is built on transparent, permissionless and decentralized protocols of lending, borrowing, trading, derivatives and asset management services, unlike the conventional financial systems.

Schär (2021) provided one of the first comprehensive academic analyses of DeFi, characterizing DeFi as an alternative financial infrastructure based on blockchain networks. The study pointed out that DeFi protocols are similar to traditional financial services, but better (transparency, interoperability, accessibility and composability). Schär further argued that smart contracts are the basic mechanism for enabling trustless transactions and the automated execution of financial operations. The study showed both the opportunities and the technological vulnerabilities of the decentralized financial systems. DeFi protocols and their underlying architecture are systematically classified by Auer et al. (2023). The research identified decentralized exchanges, lending platforms, derivatives markets, stablecoins and asset management protocols as the core pieces of the DeFi ecosystem. The authors argued that DeFi is a new financial paradigm by replacing centralized intermediaries with software-based protocols that reduce transaction costs and improve operational efficiency. But they also highlighted that the ever-increasing complexity and interdependency of DeFi protocols generate new types of technological and economic risks.

Jiang et al. [38] conduct a survey of DeFi systems and propose a taxonomy of DeFi applications. In the study, DeFi protocols were classified into decentralized exchanges, lending and borrowing, derivatives, insurance, stablecoins and asset management. The authors also talked about several research problems on scalability, interoperability, security, governance and regulatory compliance. They concluded DeFi provides unique financial solutions, but there are major technical and economic hurdles to overcome before it can be widely used.

Werner et al. (2021) performed a Systematization of Knowledge (SoK) study, analyzing the technical and economic security risks in DeFi ecosystems. Their research distinguished between vulnerabilities arising from software bugs and those arising from economic incentives encoded in protocol design. Authors noted that flash-loan attacks, oracle manipulation, liquidity exploitation and governance attacks are great threats to protocol stability. The research has shown that economic security is less studied than technical security and it should be more academically focused.

The heart of the ecosystem comprises of decentralized exchanges and lending protocols as shown in the research regarding the structure of DeFi protocols (Kitzler et al., 2021). Their research found that increased composability promotes innovation, but also engenders systemic interdependencies that can amplify the extent of financial contagions and operational risks. The study identified a lack of understanding as to how procedures interact in assessing stability at the ecosystem scale. Governance is another important research area in DeFi. Decentralization is often mentioned as a characteristic of DeFi, but in practice it seems that a small number of token holders may control governance.

Kitzler et al. (2023) studied the governance dynamics of DAOs and found that contributors and large token holders often have influence or control over governance decisions.

The study highlighted the problems of central administration and the need for transparent and equitable governance for the achievement of objectives of decentralization.

DeFi is massively economically beneficial for financial inclusion and financial innovation." DeFi removes the necessity of traditional financial institutions, removes geographic barriers, and brings financial services to a broader community.

Decentralized lending, borrowing, and payment systems, in particular, have been cited by researchers to have the potential to empower the unbanked and underbanked. Further, composability of DeFi protocols allows developers to combine a plethora of financial services into new products, which accelerates financial experimentation and innovation. Current financial regulatory frameworks have been designed for centralized institutions and therefore have difficulties in dealing with decentralized financial systems (Zetzsche et al., 2020).

Without identifiable intermediaries, it is more difficult to apply anti-money laundering (AML), know-your-customer (KYC), consumer protection and taxation regulations. Regulators will need to be creative in how to deal with dispersed organizational structures without stifling innovation," the authors emphasized.

There also has been recent policy-relevant research that has brought to the fore concerns about financial stability and systemic risk. DeFi protocols, stablecoins and the crypto market are becoming increasingly interconnected, offering potential avenues for risks to flow over into the broader financial system. As DeFi develops and interacts with existing financial institutions, regulators need to strike a balance between innovation and market integrity, investor protection and financial stability.

Literature has shown that DeFi has the ability to change the global financial ecosystem through enabling better access, transparency, efficiency and creativity.

But the smart contract vulnerability, governance concentration, economic security, systemic risk and regulatory uncertainty remain ongoing concerns that pose serious challenges to sustainable growth. Future research should aim at increasing the security of protocols, strengthening the governance mechanisms, enhancing the interoperability and developing adaptive regulatory frameworks that can enable responsible innovation in decentralized financial markets.

3. OBJECTIVES OF THE STUDY

The main objectives are:

- Learn about DeFi concept and architecture.
- To study the opportunities offered by DeFi.
- To identify the major risks associated with DeFi platforms.
- To evaluate emerging regulatory challenges.
- To formulate recommendations for sustainable development of DeFi.

4. RESEARCH METHODOLOGY

4.1 Research Design

The current study is a qualitative descriptive research design to investigate opportunities, risks, and emerging regulatory challenges of Decentralized Finance (DeFi) in the global financial ecosystem. DeFi is a fast-moving interdisciplinary area that includes finance, blockchain technology, economics, cybersecurity, and regulatory policy. Hence, a thorough literature-based approach was considered appropriate to investigate the current status and future implications of DeFi. The paper is mostly a synthesis of existing academic knowledge, industry insights and policy development around DeFi.

4.2 Research Method

The research adopts a systematic literature review method to identify, evaluate and analyze relevant scholarly and professional publications. Systematic review allows for the synthesis of results across multiple studies and provides a holistic perspective on emerging trends, opportunities, challenges, and regulatory issues in the DeFi ecosystem. Given the dynamic and ever-changing nature of decentralized financial markets this study is exploratory.

4.3 Sources of Data

The study is based only on secondary data collected from reliable academic and professional sources. Literature was retrieved from peer-reviewed journals, conference proceedings, working papers, industry reports, regulatory publications and international financial organizations. The main data sources used are - Scopus indexed journals - Web of Science indexed publications - Google Scholar database - IEEE Xplore Digital Library - SpringerLink - ScienceDirect - ACM Digital Library - ArXiv repository - Bank for International Settlements (BIS) - Financial Stability Board (FSB) - International Monetary Fund (IMF) - World Economic Forum (WEF) These databases and repositories were selected because they provide reliable and timely information on blockchain technology, decentralized finance, digital assets, financial regulation, and emerging financial innovations.

4.4 Selection Criteria of Literature

Inclusion and exclusion criteria were properly defined to ensure the quality, trustworthiness and relevancy of the literature evaluated. The following criteria were used to choose studies in order to preserve consistency in the selection process of studies.

4.4.1 Inclusion Criteria

The review included literature on decentralized financing (DeFi), blockchain, smart contracts, decentralized apps (dApps) and digital assets. Our search was comprehensive and extensive, across academic publications (e.g. peer-reviewed journal articles, conference papers and regulatory or institutional reports) from 2020 to 2025. Studies were included only when published in English. The selected literature should also cover parts of the DeFi ecosystem, such as opportunities, risks, governance mechanisms, security issues, and legal frameworks.

4.4.2 Inclusion criteria

The review eliminated only publications that were solely on traditional or non-decentralized finance. We also removed non-academic content such as blogs, opinion pieces and other informal sources found on the web. Duplicate records from different databases were removed to avoid duplication. Additionally, studies were omitted if they did not reveal methodological transparency, empirical data or declared study aims to maintain the integrity and rigor of the evaluation.

4.5 Data Collection Process

A systematic search strategy was employed using predefined keywords and search strings. The major search terms included:

- Decentralized Finance (DeFi)
- Blockchain Finance
- Smart Contracts
- DeFi Risks
- Financial Inclusion and DeFi
- DeFi Regulation"
- Cryptocurrency Ecosystem
- Decentralized Exchanges
- DeFi Governance
- Digital Asset Regulation

Relevant studies were screened based on titles, abstracts, keywords, and full-text evaluations. Publications meeting the inclusion criteria were selected for detailed analysis.

4.6 Data Analysis Methodology

The literature was analysed through thematic content analysis. This approach allowed to identify common themes, patterns and research findings across selected studies. The literature was divided into the following broad themes:

- DeFi technology base
- Financial opportunities and innovation
- Security threats and operational risks
- Challenges of governance and decentralization
- Legal and regulatory issues
- Implications for financial stability
- Trends for the future and research directions

Thematic analysis facilitated a systematic comparison of findings across different studies and aided in the development of an integrated understanding of the DeFi ecosystem.

4.7. Conceptual Framework

The essay uses a conceptual framework that looks at the interaction of three main DeFi (Decentralized Finance) components:

- Opportunities, dangers and regulatory limitations. The Opportunities dimension consists of financial inclusion, transparency, efficiency, innovation and accessibility.
- Risks dimension covers smart contract vulnerabilities, cyber security risks, liquidity issues, governance and market manipulation.
- The regulatory difficulties dimension includes AML/KYC compliance, consumer protection, taxation, cross border supervision and financial stability issues. The combination of such variables gives a complete picture of the drivers for the acceptance, sustainability and future evolution of DeFi in the global financial system.

4.8 Validity and Reliability

The reliability and validity are improved through the use of information from highly cited academic publications, recognized financial institutions and established regulatory organizations. Cross checking of multiple sources was done to reduce bias and improve credibility of findings. Moreover, the use of peer-reviewed literature and internationally recognized reports further strengthens the robustness of the research conclusions.

5. UNDERSTANDING THE DeFi ECOSYSTEM

DeFi refers to blockchain-based financial applications operating through decentralized protocols and smart contracts.

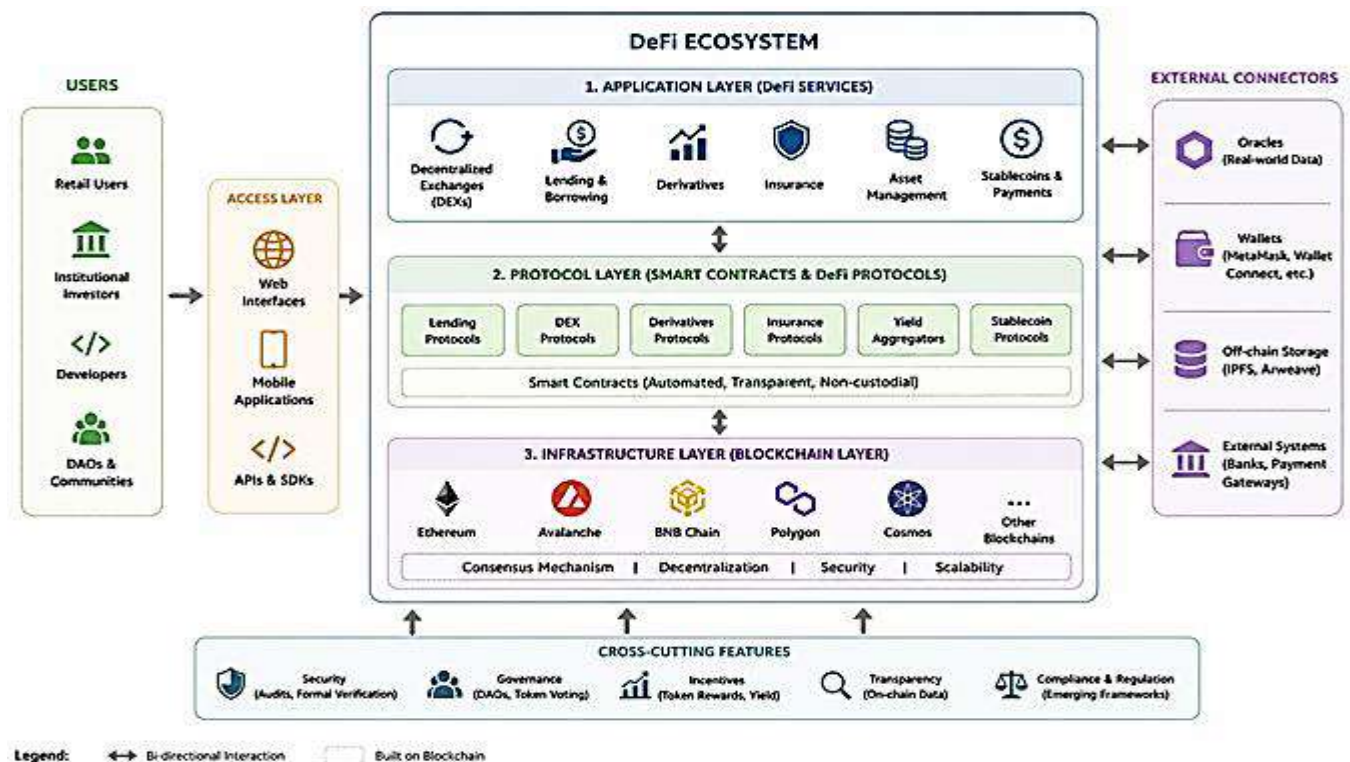


Figure 1: Architecture of the DeFi Ecosystem (Source: Developed by the author(s) based on Schär (2021), Auer et al. (2024), and Jiang et al. (2023))

Figure 1 displays the basic architecture of Decentralized Finance (DeFi) ecosystem . Users access DApps through digital wallets that then connect to smart contracts running on blockchain networks . The smart contracts allow automatic execution of financial transactions between parties such as lending, borrowing, trading and asset management without the need for a third party. The underlying blockchain architecture guarantees transparency, security, immutability and decentralized functioning of all financial actions happening inside the DeFi ecosystem.

6. CORE COMPONENTS OF DEFI

Table 1: Major Components of the DeFi Ecosystem

Component	Function
Blockchain	Provides decentralized infrastructure
Smart Contracts	Automates financial transactions
Stablecoins	Reduces volatility in transactions
Decentralized Exchanges (DEXs)	Enables peer-to-peer trading
Lending Protocols	Facilitates decentralized lending
DAOs	Supports decentralized governance

(Source: [Auer, R., Haslhofer, B., Kitzler, S., Saggese, P., & Victor, F. \(2023\)](#))

Table 1 describes the basic components of DeFi. Smart contracts automate the execution. The underlying infrastructure is blockchain technology. Stablecoins provide transactional stability. Trading on decentralised exchanges. DAOs enable community governance of protocols.

7. DEFI OPPORTUNITIES

7.1 Financial Sector Inclusion

DeFi allows those who are unbanked to take part in financial activities through internet access and digital wallets.

7.2 Transparency

And the transactions are recorded in blockchain ledgers that are public and therefore audit-able and accountable.

7.3 Cost Savings

Elimination of intermediary's cuts transaction and operational costs.

7.4 World Wide Accessibility

Users can also access financial services without geographical limits.

7.5 Innovation and Composability

DeFi protocols can plug into each other, creating new financial products and services.

Table 2: Key Opportunities Offered by DeFi

Opportunity	Impact
Financial Inclusion	Expands access to banking services
Transparency	Improves trust and accountability
Cost Efficiency	Lowers operational expenses
Global Access	Enables borderless finance
Automation	Increases operational efficiency

(Source: [Jangra, R. \(2025\)](#))

Table 2 shows the main advantages of DeFi. Financial inclusion and access globally are particularly important in emerging economies where traditional banking infrastructure is lacking. Automation through smart contracts further improves efficiency and minimizes human intervention.

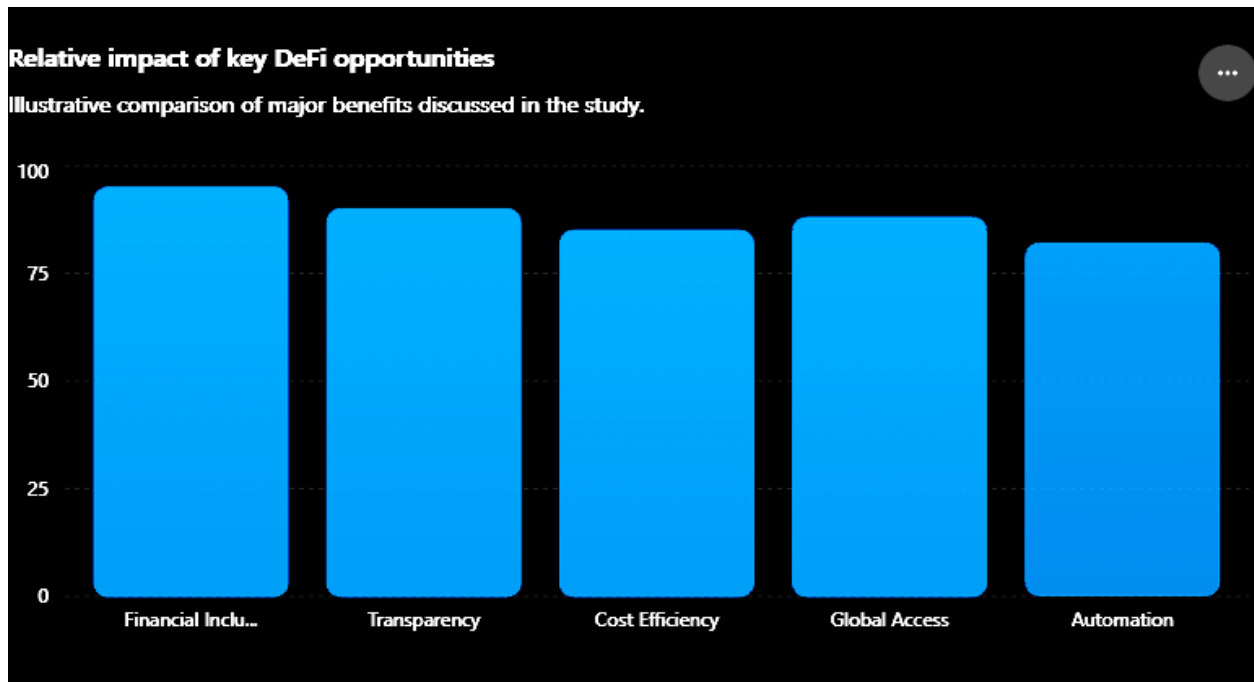


Figure 2: Comparative Impact of Major DeFi Opportunities

Main opportunities provided by the Decentralized Finance (DeFi) ecosystem are compared in Figure 2. The graph shows that the impact of financial inclusion is the highest which shows DeFi's ability to provide banking and financial services to underserved populations. Transparency and global accessibility also play an important role in the possibility of open, borderless and verifiable financial transactions. Cost efficiency and automation also enhance operational performance by reducing the need for intermediaries and streamlining financial processes.

8. RISKS ASSOCIATED WITH DEFI

Despite its benefits, DeFi introduces several risks.

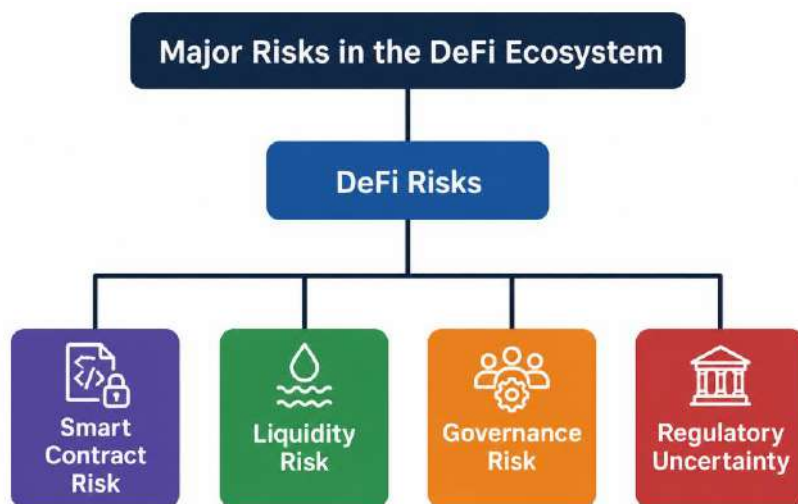


Figure 3: Major Risks in the DeFi Ecosystem

Figure 3 categorizes the major risks associated with DeFi. Smart contract vulnerabilities can lead to financial losses, liquidity shortages may destabilize markets, governance failures can result in poor decision-making, and regulatory uncertainty creates compliance challenges.

8.1 Smart Contract Vulnerabilities

Coding errors and security flaws can result in protocol exploits and loss of funds.

8.2 Liquidity Risk

The market is dynamic and may experience abrupt illiquidity from time to time.

8.3 Risk Oracle

External data feeds may be corrupted and may impact protocol operation.

8.4 Governance risk

Governance tokens are centralized, which may lead to lack of decentralization. 7.5 Cybersecurity Threats
DeFi platforms remain attractive targets for hackers. Multiple large-scale attacks have resulted in substantial financial losses. Recent incidents demonstrate the continuing cybersecurity challenges faced by DeFi platforms [Schär, F. \(2021\)](#).

Table 3: Major Risks and Their Consequences

Risk Type	Potential Consequence
Smart Contract Risk	Loss of user funds
Liquidity Risk	Market instability
Oracle Risk	Price manipulation
Governance Risk	Centralization concerns
Cybersecurity Risk	Hacking and exploitation

(Source: [Aquilina, M., Cornelli, G., Frost, J., & Gambacorta, L. \(2025\)](#))

Table 3 demonstrates that DeFi risks extend beyond technical vulnerabilities and include economic, governance, and systemic challenges that can affect both individual users and broader financial markets.

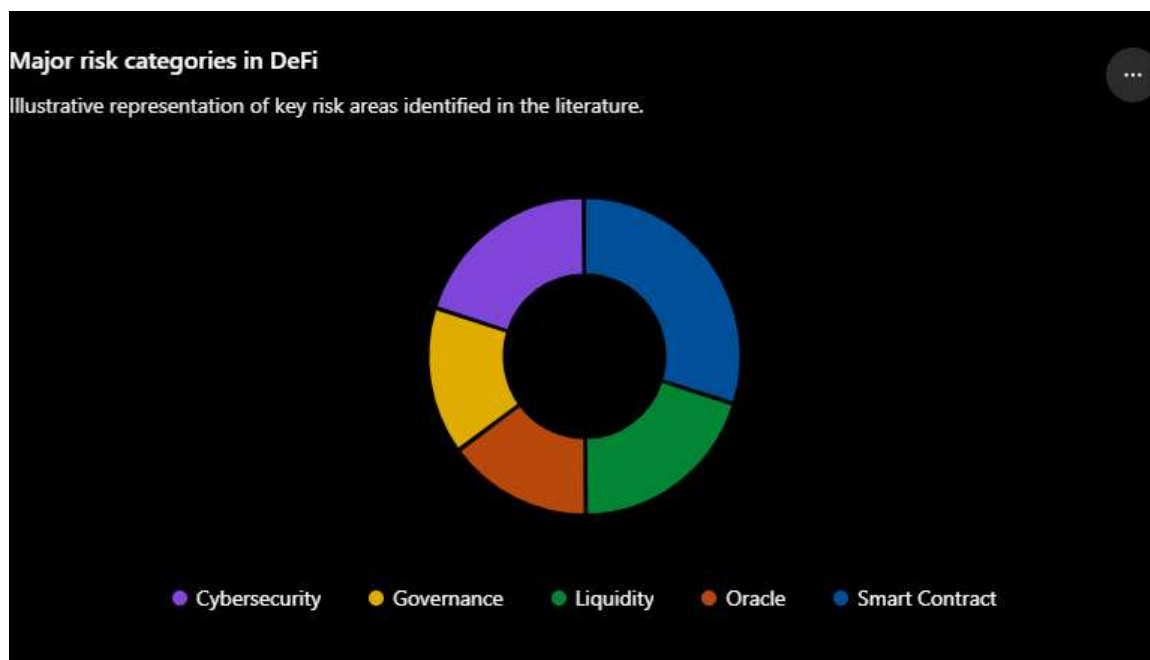


Figure 4: Major Risk Categories in the DeFi Ecosystem

Figure 4 Distribution of key risks of DeFi ecosystem. The greatest category is smart contract risk, which includes code vulnerabilities and software exploits that can result in loss of money. Also, the liquidity risk and the cyber security risk are large volumes, suggesting the volatility of the market and malicious attacks on DeFi systems. Oracle and Governance Risks recognize the risk of external data tampering and power concentration in decision making.

9. REGULATORY CHALLENGES

The decentralized nature of DeFi creates significant regulatory complications.

Key Challenges

- Absence of identifiable intermediaries

- Across border jurisdictional issues
- Anti-Money Laundering (AML) compliance
- Know Your Customer (KYC) implementation
- Protection of consumers
- Complexity of taxation

Regulators around the world are looking for ways to enable innovation while managing risks to financial stability. Recently, policy circles have discussed the need for better stablecoin oversight, smart contract auditing, and risk-based regulation Schär, F. (2021).

Table 4: Global Regulatory Concerns in DeFi

Regulatory Area	Challenge
AML/CFT	Anonymous transactions
Consumer Protection	Limited legal recourse
Taxation	Difficult transaction tracking
Financial Stability	Systemic contagion risks
Cross-Border Supervision	Jurisdictional conflicts

(Source: Financial Stability Board. (2023))

Table 4 illustrates the multifaceted regulatory concerns associated with DeFi. Regulators face difficulties in applying traditional compliance frameworks to decentralized systems operating across multiple jurisdictions.

10. FUTURE OF DEFI

The future of DeFi is expected to be influenced by:

- Greater participation by institutions.
- Integration with traditional finance (TradFi).
- Growth of tokenized real-world assets.
- Expansion of Central Bank Digital Currencies (CBDCs).
- Enhanced regulatory oversight.
- Improved security and governance mechanisms.

Emerging research indicates that the long-term sustainability of DeFi depends on balancing innovation, security, and regulatory compliance.

11. RECOMMENDATIONS

- Establish International co-regulation.
- Demand smart contract audits.
- Enhance transparency requirements.
- Develop decentralized identity solutions.
- Strengthen cybersecurity frameworks.
- Enable responsible innovation using regulatory sandboxes.

12. CONCLUSION

Decentralized Finance (DeFi) has been a disruptive force that can upset the global finance sector. It can bring huge prospects for economic development through financial inclusion, transparency, automation and borderless access. DeFi also presents significant technological, financial, governance and regulatory challenges. The report says developers, financial institutions, politicians and regulators need to work together to drive DeFi's continued growth. Ultimately, the future of decentralized banking will hinge on a delicate regulatory balance that supports innovation while maintaining financial stability.

REFERENCES

- 1) Schär, F. (2021). Decentralized finance: On blockchain- and smart contract-based financial markets. *Federal Reserve Bank of St. Louis Review*, 103(2), 153–174. Available from: <https://doi.org/10.20955/r.103.153-74>
- 2) Auer, R., Haslhofer, B., Kitzler, S., Saggese, P., & Victor, F. (2024). The technology of decentralized finance (DeFi). *Digital Finance*, 6(1), 55–95. Available from: <https://doi.org/10.1007/s42521-023-00088-8>
- 3) Werner, S. M., Perez, D., Gudgeon, L., Klages-Mundt, A., Harz, D., & Knottenbelt, W. J. (2021). *SoK: Decentralized finance (DeFi)*. arXiv. Available from: <https://arxiv.org/abs/2101.08778>
- 4) Kitzler, S., Victor, F., Saggese, P., & Haslhofer, B. (2021). *Disentangling decentralized finance (DeFi) compositions*. arXiv. Available from: <https://arxiv.org/abs/2111.11933>

- 5) Zetsche, D. A., Arner, D. W., & Buckley, R. P. (2020). Decentralized finance. *Journal of Financial Regulation*, 6(2), 172–203. Available from: <https://doi.org/10.1093/jfr/fjaa010>
- 6) Aquilina, M., Cornelli, G., Frost, J., & Gambacorta, L. (2025). *Cryptocurrencies and decentralised finance: Functions and financial stability implications*. Bank for International Settlements. Available from: <https://www.bis.org/publ/bppdf/bispap156.htm>
- 7) Auer, R., Haslhofer, B., Kitzler, S., Saggese, P., & Victor, F. (2023). *The technology of decentralized finance (DeFi)* (BIS Working Paper No. 1066). Bank for International Settlements. Available from: <https://www.bis.org/publ/work1066.htm>
- 8) Financial Stability Board. (2023). *The financial stability risks of decentralised finance*. Bank for International Settlements. Available from: <https://www.bis.org/fsi/fsisummaries/defi.htm>
- 9) Gogol, K., Killer, C., Schlosser, M., Bocek, T., Stiller, B., & Tessone, C. (2024). SoK: Decentralized finance (DeFi) – Fundamentals, taxonomy and risks. arXiv. Available from: <https://arxiv.org/abs/2404.11281>
- 10) Jiang, E., Qin, B., Wang, Q., Wang, Z., Wu, Q., Weng, J., Li, X., Wang, C., Ding, Y., & Zhang, Y. (2023). *Decentralized finance (DeFi): A survey*. arXiv. Available from: <https://arxiv.org/abs/2308.05282>
- 11) Jangra, R. (2025). *Decentralized finance (DeFi) and its disruptive potential in emerging markets: A comparative study of use cases, risks, and regulatory responses*. SSRN. Available from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5259453
- 12) Xiong, X., Wang, Z., Cui, T., Knottenbelt, W., & Huth, M. (2023). *Market misconduct in decentralized finance (DeFi): Analysis, regulatory challenges and policy implications*. arXiv. Available from: <https://arxiv.org/abs/2311.17715>
- 13) Zhang, S., Wang, Z., Zheng, J., & Cartledge, J. (2026). *Systemic risk in DeFi: A network-based fragility analysis of TVL dynamics*. arXiv. Available from: <https://arxiv.org/abs/2601.08540>
- 14) Kitzler, S., Ballelli, S., Saggese, P., Haslhofer, B., & Strohmaier, M. (2023). *The governance of decentralized autonomous organizations: A study of contributors' influence, networks, and shifts in voting power*. arXiv. Available from: <https://arxiv.org/abs/2309.14232>
- 15) Paul, A. (2025, June 11). *\$40 million worth of crypto stolen from Step Finance: Hackers compromise executive devices to gain illicit access*. Tom's Hardware. Available from: https://www.tomshardware.com/tech-industry/cyber-security/usd40-million-worth-of-crypto-stolen-from-step-finance-hackers-compromise-executives-devices-to-gain-illicit-access?utm_source=chatgpt.com