

1. Record Nr.	UNINA9910592985003321
Autore	Yao Qian
Titolo	Blockchain-based new financial infrastructures : theory, practice and regulation / / Qian Yao
Pubbl/distr/stampa	Singapore : , : Springer, , [2022] ©2022
ISBN	9789811948435 9789811948428
Descrizione fisica	1 online resource (204 pages)
Disciplina	005.74
Soggetti	Blockchains (Databases) Finance - Technological innovations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Preface -- Contents -- 1 Envisaged Framework and Key Considerations -- 1.1 Basic Framework -- 1.1.1 Traditional Framework -- 1.1.2 A Blockchain-Based New Framework -- 1.2 Framework Extension -- 1.2.1 DLT-PS -- 1.2.2 Decentralized Asset Trading -- 1.2.3 CCP Smart Contracts -- 1.2.4 CCP Smart Contracts and Trade Smart Contracts -- 1.3 Key Considerations -- 1.3.1 DvP and Settlement Risk -- 1.3.2 Settlement Period and Liquidity -- 1.3.3 Privacy Protection -- 1.3.4 Performance -- 1.3.5 New Role of FMIs -- 2 Blockchain-Based Cross-Border FMIs: Scenario of Depository Receipts -- 2.1 Existing Schemes -- 2.1.1 Entities Involved -- 2.1.2 Existing Business Processes -- 2.2 Prerelease of Existing DRs -- 2.2.1 Definition of DR Prerelease and Existing Mechanisms -- 2.2.2 Risks in Prerelease of ADRs: An Example of the U.S. Market -- 2.2.3 Conflict Between Efficiency and Security -- 2.3 Blockchain-Based DR Solutions -- 2.3.1 Conversion of Underlying Shares to DR -- 2.3.2 Conversion of DR to Underlying Shares -- 2.3.3 Corporate Actions of DRs -- 2.3.4 DvP, PVP and DvD for DR Issuance and Redemption -- 3 Blockchain-Based Exchange-Traded Derivatives FMIs: Scenarios of Futures and Options -- 3.1 Existing Schemes -- 3.1.1 Futures -- 3.1.2 Options -- 3.2 Blockchain-Based Innovation Schemes -- 3.2.1 Futures -- 3.2.2 Options -- 4 Blockchain-Based Over-the-Counter FMIs -- 4.1

Blockchain-Based Bond FMI Interconnection Solutions -- 4.1.1 Status Quo Analysis of China's Bond FMIs -- 4.1.2 Blockchain-Based Solutions -- 4.2 Blockchain-Based Regional Equity Market Scheme -- 4.2.1 Current Developments -- 4.2.2 Existing Problems -- 4.2.3 A Blockchain-Based Development Scheme -- 4.3 Blockchain-Based OTC Asset Management FMI Platform -- 4.3.1 Status Quo and Problems of OTC Asset Management Market -- 4.3.2 Blockchain-Based OTC Asset Management FMI Platform.

5 Blockchain-Based OTC Derivatives FMI -- 5.1 OTC Derivatives and Trade Repositories -- 5.1.1 OTC Derivatives -- 5.1.2 Trade Repositories -- 5.2 Practical Pain Points -- 5.2.1 Stringent Supervision Brings Heavy Business Pressure -- 5.2.2 Low Efficiency Gives Rise to Automation Requirements -- 5.3 Blockchain-Based OTC Derivatives Information Exchange Platform and TR -- 5.3.1 Migrating Off-Chain Contract Information onto the Chain -- 5.3.2 Blockchain-Based TRs -- 5.4 Blockchain-Based OTC Derivatives Trading Platform and TRs -- 5.4.1 OTC Derivatives and Smart Contracts -- 5.4.2 Smart Derivatives Contract Trading Platform -- 5.4.3 Smart Trade Repositories -- 6 Blockchain-Based New Payment Systems: Digital Currencies -- 6.1 Digital Renminbi -- 6.1.1 "One Currency, Two Databases and Three Centers" -- 6.1.2 Digital Currency and Bank Accounts -- 6.1.3 CBDC Scheme Based on Indirect Holding -- 6.2 Digital US Dollar -- 6.2.1 A Plan for a Digital US Dollar -- 6.2.2 Strategic Intent -- 6.2.3 Main Matters of Concern -- 6.3 Digital Euro -- 6.3.1 Digital Euro Characteristics -- 6.3.2 Technical Models -- 6.4 Perspectives on CBDC -- 6.4.1 Central Bank Money Faces Challenges: A New Currency War -- 6.4.2 From Private Digital Currency to CBDCs: Associations and Differences -- 6.4.3 Value Attributes of CBDCs: Central Bank Liability or Private Liability -- 6.4.4 Generation of CBDCs: Issuance or Exchange -- 6.4.5 Technical Route for CBDCs: Account-based or Token-based -- 6.4.6 CBDC and Smart Contracts: Prudent or Active -- 6.4.7 CBDC Operation Structure: One-tier and Two-tier Operation -- 6.4.8 CBDCs and Monetary Policy Tools: Interest-Bearing or Not -- 6.4.9 Regulatory Considerations for CBDCs: Balancing Privacy Protection and Regulatory Compliance -- 6.4.10 Conclusion -- 7 Trusted Identity, Digital Credit Reporting and Decentralized Finance -- 7.1 Trusted Identity. 7.1.1 Definition and Value of Trusted Identity -- 7.1.2 Form of Trusted Identity -- 7.1.3 Big Data-Based Behavior Traceability Strengthens the Management of Cyber Trusted Identity -- 7.1.4 Trusted Identity System -- 7.1.5 Trusted Identity Use Scenarios -- 7.1.6 Key Elements of Trusted Identity Development -- 7.2 Digital Credit Reporting -- 7.2.1 Definition of Digital Credit Reporting -- 7.2.2 Design of Digital Credit Reporting Solutions -- 7.2.3 Value Analysis of Digital Credit Reporting -- 7.3 Decentralized Finance -- 7.3.1 Current Developments -- 7.3.2 Decentralized Exchanges -- 7.3.3 Decentralized Digital Asset Lenders -- 7.3.4 Risks of DeFi -- 8 Supervision of Blockchain-Based New FMIs -- 8.1 ICO and STO -- 8.2 PFMI Assessment -- 8.2.1 Legal Basis and Governance -- 8.2.2 Risk Management -- 8.2.3 Settlement -- 8.2.4 Participation and Links -- 8.2.5 Data Disclosure -- 8.3 Legal Basis and Off-Chain Governance -- 8.3.1 Legal Basis -- 8.3.2 Off-Chain Governance -- 8.4 System Security -- 8.4.1 Possible Single-Point-of-Failure Risk -- 8.4.2 Security of Digital Wallets -- 8.4.3 Security of Smart Contracts -- Appendix Definitions and Technical Basis -- A.1 Financial Market Infrastructure (FMI) -- A.2 Financial Infrastructure -- A.3 Symmetric Key Algorithm -- A.4 Asymmetric Key Algorithm -- A.5 Hash Algorithm -- A.6 Hashed Time Lock Contract (HTLC) -- A.7 Digital Currency -- A.8 Double Spending -- A.9 E-Cash -- A.10 Bitcoin -- A.11 Blockchain Technology -- A.12 Distributed Ledger --

A.13 P2P Network -- A.14 POW -- A.15 Mining -- A.16 POS -- A.17
Digital Wallet -- A.18 Smart Contract -- A.19 Public Chain -- A.20
Consortium Chain.
