Umit Hacioglu Editor

Blockchain Economics and Financial Market Innovation

Financial Innovations in the Digital Age

Springer

Contents

| Par | t I Blockchain Economics and Financial Market Innovation | |
|-----|--|-----|
| 1 | Corporate Finance in the New Business Ecosystem in the Digital Age Meltem Gurunlii | 3 |
| 2 | The Global Financial System's New Tool: Digital Money Faruk Dayi | 17 |
| 3 | Redesigning Current Banknotes with Blockchain Infrastructure: A Model Proposal Sabri Erdem and Derya Altun | 41 |
| 4 | Initial Coin Offerings: Tokens as Innovative Financial Assets Saman Adhami and Giancarlo Giudici | 61 |
| 5 | The Blockchain-Sustainability Nexus: Can This New Technology Enhance Social, Environmental and Economic Sustainability? Semen Son-Turan | 83 |
| Pai | rt II Crypto-Currency Investment Strategies and Crypto-Markets | |
| 6 | Herding Behaviour in Cryptocurrency Market: CSSD and CSAD Analysis Giiliizar Kurt Gumu§, Yusuf Giimu§, and Ay§egul £imen | 103 |
| 7 | News Sentiment and Cryptocurrency Volatility Serkan Cankaya, Elcin Aykac Alp, and Mefule Findikci | 115 |
| 8 | Bitcoin Market Price Analysis and an Empirical Comparison with Main Currencies, Commodities, Securities and AUcoins Burak Pirgain, Burgu Din Pergola and Sijheda Haslak | 141 |

xx Contents

| 9 | The Causal Relationship Between Returns and Trading Volume in Cryptocurrency Markets: Recursive Evolving Approach Efe Caglar Cagli | 167 |
|-----|--|-----|
| 10 | Assessment of the Crypto Market Efficiency: Empirical Evidence from Unit Root Tests with Different Approximations Yuksel Iltas, Gulbahar Ucler, and Umit Bulut | 191 |
| 11 | Forecasting the Prices of Cryptocurrencies Using GM(1,1) Rolling Model Cem Kartal and Mehmet Fatih Bayramoglu | 201 |
| Par | t III Economic and Financial Assessment of Crypto-Currencies | |
| 12 | Is It Possible to Understand the Dynamics of Cryptocurrency Markets Using Econophysics? Crypto-Econophysics Tolga Ulusoy and Mehmet Yunus £elik | 233 |
| 13 | The Linkage Between Cryptocurrencies and Macro-Financial Parameters: A Data Mining Approach Arzu Tay Bayramoglu and £agatay Ba§anr | 249 |
| 14 | Impact of Digital Technology and the Use of Blockchain Technology from the Consumer Perspective Hande Begum Bumin Doyduk | 271 |
| 15 | Empirical Evidence of the Relationships Between Bitcoin and Stock Exchanges: Case of Return and Volatility Spillover M. Kamisli, S. Kamisli, and F. Temizel | 293 |
| 16 | Cryptocurrencies as an Investment Vehicle: The Asymmetric Relationships Between Bitcoin and Precious Metals M. Kamisli | 319 |
| Par | rt IV Crypto Currency Taxation in Emerging Markets | |
| 17 | Effective Taxation System by Blockchain Technology Habip Demirhan | 347 |
| 18 | The Size and Taxation of Cryptocurrency: An Assessment for Emerging Economies Erdogan Teyyare and Kadir Ayyildinm | 361 |
| 19 | Accounting and Taxation of Crypto Currencies in Emerging Markets Ali Kablan | 381 |
| 20 | Cryptocurrency and Tax Regulation: Global Challenges for Tax Administration Gamze Oz Yalaman and Hakan Yildinm | 407 |

Contents xxi

| 21 | Using Smart Contracts via Blockchain Technology for Effective Cost Management in Health Services Nihal Kalayci Oflaz | 423 |
|-----|--|-----|
| Par | rt V Related Subjects, Political Agenda for Crypto Markets | |
| 22 | Cryptocurrencies in the Digital Era: The Role of Technological Trust and Its International Effects Serif Dilek | 453 |
| 23 | Existence of Speculative Bubbles for the US at Times of Two Major Financial Crises in the Recent Past: An Econometric Check of BitCoin Prices Sovik Mukheijee | 475 |
| 24 | Analysis of Relationship Between International Interest Rates and Cryptocurrency Prices: Case for Bitcoin and LIBOR Serdar Erdogan and Volkan Dayan | 487 |
| 25 | Cryptocurrency Derivatives: The Case of Bitcoin Yakup Soylemez | 515 |
| 26 | How Is a Machine Learning Algorithm <i>Now-Casting</i> Stock Returns? A Test for ASELSAN Engin Sorhun | 531 |
| 27 | A Comprehensive Framework for Accounting 4.0: Implications of Industry 4.0 in Digital Era Banu Esra Aslanertik and Bengii Yardimci | 549 |