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Dhali, M.^a, Hassan, S.^a, Zulhuda, S.^b

The regulatory puzzle of decentralized cryptocurrencies: Opportunities for innovation and hurdles to overcome
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^a College of Law, Prince Sultan University, Riyadh, 12435, Saudi Arabia

^b Department of Law, International Islamic University Malaysia, Kuala Lumpur, 53100, Malaysia

Abstract

Decentralized cryptocurrencies, such as bitcoin, use peer-to-peer software protocol, disintermediating the traditional intermediaries that used to be banks and other financial intermediaries, effectuating cross-border transfer. In fact, by removing the requirement for a middleman, the technology has the potential to disrupt current financial transactions that rely on a trusted authority or intermediary operator. Traditional financial regulation, primarily based on the command-and-control approach, is ill-suited to regulating decentralized cryptocurrencies. The present paper aims to investigate the policy option most suitable for regulating decentralized cryptocurrencies. The study employs content analysis method to effectuate the purpose of the study. The paper argues that the combination of both direct and indirect regulatory approaches would be a feasible option for regulating decentralized cryptocurrencies. The absence of centralized authority and the borderless nature of decentralized cryptocurrencies would make them antithetical to centralized direct regulation. Therefore, the findings of the study suggest that regulators should focus on regulating intermediaries bridging the connection between the online world (crypto ecosystem) and the physical world (the point of converting crypto into fiat money). These intermediaries can work as passive actors or surrogate regulators who are indirectly responsible for implementing policy options on behalf of the central authority. © 2024 by author(s).

Author Keywords

banking; bitcoin; blockchain; cryptocurrency; decentralization; money; regulation; virtual currency

References

- Adrian, T., Mancini-Griffoli, T.
Central Bank Digital Currencies: 4 Questions and Answers
(2019),
International Monetary Fund Website. (accessed on 19 January 2022)
- Ali, S., Jiang, J., Hassan, S. T., Shah, A. A.
Revolution of nuclear energy efficiency, economic complexity, air transportation and industrial improvement on environmental footprint cost: A novel dynamic simulation approach
(2022) *Nuclear Engineering and Technology*, 54 (10), pp. 3682-3694.
- Ali, S., Naseem, M. A., Jiang, J.
How” and “When” CEO Duality Matter? Case of a Developing Economy
(2022) *SAGE Open*, 12 (3), p. 215824402211161.
- Ali, S., Zhang, J., Abbas, M.
Symmetric and Asymmetric GARCH Estimations and Portfolio Optimization: Evidence from G7 Stock Markets
(2019) *SAGE Open*, 9 (2), p. 215824401985024.
- Allen, F., Santomero, A. M.
What do financial intermediaries do?
(2001) *Journal of Banking & Finance*, 25 (2), pp. 271-294.
- Allen, J. G., Rauchs, M., Blandin, A., Bear, K.
(2020) *Legal and Regulatory Considerations for Digital Assets*,
Cambridge Centre for Alternative Finance

- AlShamsi, M., Al-Emran, M., Shaalan, K.
A Systematic Review on Blockchain Adoption
(2022) *Applied Sciences*, 12 (9), p. 4245.
- Al-Shikarchy, M., Gheorghiu, L.
Canadian Taxation of Cryptocurrency ... So Far
(2017),
Glowing WLG. (accessed on 5 December 2021)
- Atzori, M.
Blockchain technology and decentralized governance: Is the state still necessary?
(2017) *Journal of Governance and Regulation*, 6 (1), pp. 45-62.
Portico
- Auer, R., Farag, M., Lewrick, U.
Banking in the Shadow of Bitcoin? The Institutional Adoption of Cryptocurrencies
(2023) *SSRN Electronic Journal*,
- Ayadi, A., Ghabri, Y., Guesmi, K.
Directional predictability from central bank digital currency to cryptocurrencies and stablecoins
(2023) *Research in International Business and Finance*, 65, p. 101909.
- Bajpai, P.
(2021) *Liquidity of Bitcoin*. Investopedia,
(accessed on 14 July 2021)
- Bal, A.
How to Tax Bitcoin?
(2015) *Handbook of Digital Currency*, pp. 267-282.
- Banguis, D.
Adopting Cryptocurrency & Blockchain to Fuel Growth in 2022
(2022) *FinTech Magazine*,
(accessed on 14 June 2022)
- Bar-Ziv, S.
A Content Analysis Approach to Intellectual Property Research
(2021) *Handbook of Intellectual Property Research*, pp. 473-486.
- Bech, M. L., Garratt, R.
(2017) *Central bank cryptocurrencies*,
(accessed on 7 October 2022)
- Beessoo, V., Foondun, A.
Money Laundering Through Bitcoin: The Emerging Implications of Technological Advancement
(2019) *SSRN Electronic Journal*,
- Black, J.
Decentring Regulation: Understanding the Role of Regulation and Self-Regulation in a "Post-Regulatory" World
(2001) *Current Legal Problems*, 54 (1), pp. 103-146.
- Black, J.
Critical Reflections on Regulation
(2017) *Crime and Regulation*, pp. 15-49.
- Boissay, F., Cornelli, G., Doerr, S., Frost, J.
(2022) *Blockchain Scalability and the Fragmentation of Crypto (Issue 56)*,
(accessed on 10 May 2023)

- Bollen, R.
The Legal Status of Online Currencies Are Bitcoins the Future?
(2016) *SSRN Electronic Journal*,
- Bossu, W., Itatani, M., Margulis, C.
Legal Aspects of Central Bank Digital Currency
(2020) *IMF Working Papers*, 20 (254).
- Braeden, A. K.
Regulating the Future of Finance and Money: A Rational U.S. Regulatory Approach to Maximizing the Value of Crypto-Assets and Blockchain Systems
(2018) *Bocconi Student-Edited Legal Papers*, 11, p. 1.
(accessed on 15 May 2022)
- Brito, J., Castillo, A.
Bitcoin: A Primer for Policymakers
(2013) *Mercatus Center: George Mason University*, 29 (4), pp. 3-12.
- Brito, J., Shadab, H. B., Castillo, A.
Bitcoin Financial Regulation: Securities, Derivatives, Prediction Markets, & Gambling
(2014) *SSRN Electronic Journal*,
- Bryans, D.
Bitcoin and Money Laundering: Mining for an Effective Solution
(2014) *Indiana Law Journal*, 89 (1), pp. 441-472.
- Caliskan, K.
The Elephant in the Dark: A New Framework for Cryptocurrency Taxation and Exchange Platform Regulation in the US
(2022) *Journal of Risk and Financial Management*, 15 (3), p. 118.
- Casey, B., Farhangi, A., Vogl, R.
Rethinking Explainable Machines: The GDPR'S 'Right to Explanation' Debate and The Rise of Algorithmic Audits in Enterprise
(2019) *Berkeley Technology Law Journal*, 34, p. 143.
- Chawki, M.
Cybercrime and the Regulation of Cryptocurrencies
(2022) *Advances in Information and Communication*, pp. 694-713.
- Chen, D.
Understanding the Scalability Issue of Blockchain
(2021),
Unstoppable Domain. (accessed on 25 February 2023)
- Choo, K.-K. R.
Cryptocurrency and Virtual Currency
(2015) *Handbook of Digital Currency*, pp. 283-307.
- Chorzempa, M.
China, the United States, and Central Bank Digital Currencies: How Important Is It to Be First?
(2021) *SSRN Electronic Journal*,
- Chu, D.
Broker-dealers for virtual currency: Regulating cryptocurrency wallets and exchanges
(2018) *Colum. L. Rev*, 118, p. 2323.

- (2023) *Cryptocurrency Prices by Market Cap*, (accessed on 11 June 2023)
- (2023) *Global Cryptocurrency Owners Grow to 425 Million Through 2022*, Crypto.Com. (accessed on 13 January 2023)
- Cumming, D. J., Johan, S., Pant, A.
Regulation of the Crypto-Economy: Managing Risks, Challenges, and Regulatory Uncertainty
(2019) *Journal of Risk and Financial Management*, 12 (3), p. 126.
- Broby, Daniel, Baker, S.
(2018) *Central Banks and Cryptocurrencies*, (accessed on 14 June 2023)
- Davidson, L., Block, W. E.
Bitcoin, the regression theorem, and the emergence of a new medium of exchange
(2015) *Quarterly Journal of Austrian Economics*, 18 (3), pp. 311-338.
- De Filippi, P.
Bitcoin: a regulatory nightmare to a libertarian dream
(2014) *Internet Policy Review*, 3 (2).
- De Filippi, P.
The Interplay Between Decentralization and Privacy: The Case of Blockchain Technologies
(2016) *Journal of Peer Production, Alternativ*, (7), pp. 1-18.
- De Filippi, P., Lavayssière, X.
(2020) *Blockchain Technology: The Great Awakening*, pp. 185-222.
- Dhali, M., Hassan, S., Mehar, S. M.
Cryptocurrency in the Darknet: sustainability of the current national legislation
(2023) *International Journal of Law and Management*, 65 (3), pp. 261-282.
- Didenko, A. N., Buckley, R. P.
Central bank digital currencies as a potential response to some particularly Pacific problems
(2022) *Asia Pacific Law Review*, 30 (1), pp. 44-69.
- Eichengreen, B., Viswanath-Natraj, G.
Stablecoins and Central Bank Digital Currencies: Policy and Regulatory Challenges
(2022) *Asian Economic Papers*, 21 (1), pp. 29-46.
- (2012) *Virtual Currency Schemes*, (accessed on 4 July 2022)
- (2017) *The Distributed Ledger Technology Applied to Securities Markets*,
- (2016) *Changes in modus operandi of Islamic State terrorist attacks*, Review held by experts from Member States and Europol on 29 November and 1 December 2015 (Issue January)
- (2021) *DarkMarket: world's largest illegal dark web marketplace taken down*, (accessed on 8 August 2022)
- Fairfield, J.
Smart Contracts, Bitcoin Bots, and Consumer Protection
(2014) *Washington and Lee Law Review Online*, 71 (2), pp. 35-50.
- Fairfield, J.
Bitproperty

(2015) *Southern California Law Review*, 88 (4), p. 805.

- Favole, J.
It Can't Be 'Decentralization or Bust'
(2021) *CoinDesk*,
(accessed on 12 August 2022)
- Feinstein, B. D., Werbach, K.
The Impact of Cryptocurrency Regulation on Trading Markets
(2021) *Journal of Financial Regulation*, 7 (1), pp. 48-99.
- *FSB warns of emerging risks from crypto-assets to global financial stability*,
(2022a). (accessed on 16 February 2022)
- *International Regulation and Supervision of Crypto-Asset Activities*,
(2022b). (accessed on 11 July 2022)
- Foley, S., Karlsen, J. R., Putniņš, T. J.
Sex, Drugs, and Bitcoin: How Much Illegal Activity Is Financed through Cryptocurrencies?
(2019) *The Review of Financial Studies*, 32 (5), pp. 1798-1853.
- Frankenfield, J.
Crypto Regulatory Sandbox Definition
(2020) *Investopedia*,
(accessed on 15 March 2022)
- Fyookball, J.
Mathematical Proof That the Lightning Network Cannot Be a Decentralized Bitcoin Scaling Solution
(2017) *Medium*,
(accessed on 27 June 2017)
- Gandal, N., Hamrick, J., Moore, T., Oberman, T.
Price manipulation in the Bitcoin ecosystem
(2018) *Journal of Monetary Economics*, 95, pp. 86-96.
- Gikay, A. A.
Regulating Decentralized Cryptocurrencies Under Payment Services Law: Lessons From European Union Law
(2018) *Journal of Law, Technology & the Internet*, 9 (1), pp. 1-35.
- Goodhart, C.
The Boundary Problem in Financial Regulation
(2008) *National Institute Economic Review*, 206, pp. 48-55.
- Goodhart, C. A. E., Lastra, R. M.
Border Problems
(2010) *Journal of International Economic Law*, 13 (3), pp. 705-718.
- Griffin, J. M., Shams, A.
Is Bitcoin Really Untethered?
(2020) *The Journal of Finance*, 75 (4), pp. 1913-1964.
Portico
- Grinberg, R.
Bitcoin: an innovative alternative digital currency
(2012) *Hastings Sci. & Tech. LJ*, 4 (1), p. 50.
- Haffke, L., Fromberger, M., Zimmermann, P.
Cryptocurrencies and anti-money laundering: the shortcomings of the fifth AML

Directive (EU) and how to address them

(2019) *Journal of Banking Regulation*, 21 (2), pp. 125-138.

- Hassan, S., Dhali, M., Mehar, S. M., Zaman, F.
Islamic Securitization as a Yardstick for Investment in Islamic Capital Markets
(2022) *International Journal of Service Science, Management, Engineering, and Technology*, 13 (1), pp. 1-15.
- Hayek, F. A.
The Use of Knowledge in Society
(1945) *The American Economic Review*, 35 (4), pp. 519-530.
- Hermans, L., Ianiro, A., Kochanska, U.
(2022) *Decrypting financial stability risks in crypto-asset markets*,
European Central Bank
- Hewitt, E.
Bringing Continuity to Cryptocurrency: Commercial Law as a Guide to the Asset Categorization of Bitcoin
(2016) *Seattle University Law Review*, 39 (2), pp. 619-640.
- Hicks, C.
Different Types of Cryptocurrencies
(2023),
Forbes Advisor. (accessed on 15 March 2023)
- Hochstein, M.
(2017) *Bitcoin 'Ought to Be Outlawed,' Economist Joseph Stiglitz Says-CoinDesk*,
(accessed on 20 August 2022)
- Hofert, E.
(2019) *Regulating virtual currencies*,
(130; IMFS Working Paper Series)
- Hossain, M. B.
Acquiring an awareness of the latest regulatory developments concerning digital assets and anti-money laundering
(2023) *Journal of Money Laundering Control*, 26 (6), pp. 1261-1268.
- Howden, E.
The Crypto-Currency Conundrum: Regulating an Uncertain Future
(2015) *Emory International Law Review*, 29 (4), pp. 741-798.
- Hsu, S.
After Cracking Down on Bitcoin, China Contemplates Its Own Digital Currency
(2017),
Forbes. (accessed on 18 January 2023)
- Huang, Y.
Virtual Currencies, ICOs and Central Bank Digital Currencies in China
(2022) *Law and Practice of Crowdfunding and Peer-to-Peer Lending in Australia, China and Japan*, pp. 125-141.
- Huang, Y., Mayer, M.
Digital currencies, monetary sovereignty, and U.S.–China power competition
(2022) *Policy & Internet*, 14 (2), pp. 324-347.
Portico
- Isaac, A., Ostroff, C.
Central Banks Move Closer to Issuing Digital Currencies

- (2020) *The Wall Street Journal*,
(accessed on 18 January 2023)
- Jabotinsky, H. Y.
The Structure of Financial Supervision: Consolidation or Fragmentation for Financial Regulators? A Game Theoretical Perspective
(2012) *SSRN Electronic Journal*,
 - Johnson, K. N.
Decentralized Finance: Regulating Cryptocurrency Exchanges
(2021) *SSRN Electronic Journal*,
 - Jones, L.
Beyond the Hype: A Practical Approach to CryptoReg
(2021) *SSRN Electronic Journal*,
 - (2020) *The TPS Race: How Leading Cryptocurrencies Are Overcoming the Scalability Problem*. *Medium*,
(accessed on 17 March 2020)
 - Kaal, W. A., Vermeulen, E. P. M.
How to Regulate Disruptive Innovation—From Facts to Data
(2016) *SSRN Electronic Journal*,
 - Kelly, J., Sadeghieh, T., Adeli, K.
Peer Review in Scientific Publications: Benefits, Critiques, & A Survival Guide
(2014) *EJIFCC*, 25 (3), p. 227.
 - Kethineni, S., Cao, Y.
The Rise in Popularity of Cryptocurrency and Associated Criminal Activity
(2019) *International Criminal Justice Review*, 30 (3), pp. 325-344.
 - Lannoo Karel, K., Blockmans, S., Kopitsch, R.
(2021) *Regulating crypto and cyberware in the EU*, (31).
(Issue)
 - Lastra, R. M., Allen, J. G.
Virtual currencies in the eurosystem: Challenges ahead
(2019) *International Lawyer*, 52 (2), pp. 177-232.
 - Mann, J.
Bitcoin Falls to Its Lowest Level Since Late 2020 Amid Crypto Selloff
(2022),
Insider. (accessed on 22 December 2022)
 - Mason, E.
Morgan Stanley Co-Leads \$48 Million Investment to Bring Blockchain to Capital Markets
(2021),
Forbes. (accessed on 21 June 2021)
 - Matsushita, M. B. B. N.
Cryptoactives Taxation and Legal Limitations of The Economic Power
(2023) *Singular. Sociais e Humanidades*, 1 (4), pp. 34-40.
 - Mersch, Y.
(2018) *Virtual Currencies Ante Portas*,
European Central Bank. (accessed on 20 March 2022)
 - Millard, C.
Blockchain and law: Incompatible codes?
(2018) *Computer Law & Security Review*, 34 (4), pp. 843-846.

- Mogul, Z., Kronfellner, B., Buser, M.
(2020) *How Banks Can Succeed with Cryptocurrency*, BGC. (accessed on 5 November 2020)
- Mookerjee, A. S.
What if central banks issued digital currency?
(2021) *Harvard Business Review*, pp. 1-10.
- Mulligan, A.
Is peer review in crisis?
(2005) *Oral Oncology*, 41 (2), pp. 135-141.
- Nabilou, H.
How to regulate bitcoin? Decentralized regulation for a decentralized cryptocurrency
(2019) *International Journal of Law and Information Technology*, 27 (3), pp. 266-291.
- Nabilou, H., André, P.
Central Banks and Regulation of Cryptocurrencies
(2019) *Review of Banking and Financial Law*, 39, pp. 1-53.
(July)
- Nabilou, H., Prm, A.
Ignorance, Debt and Cryptocurrencies: The Old and the New in the Law and Economics of Concurrent Currencies
(2018) *SSRN Electronic Journal*,
- Nair, A., Borkar, N.
Significance of including grey literature search in systematic reviews and meta-analyses
(2023) *Saudi Journal of Anaesthesia*, 17 (2), p. 295.
- Nakamoto, S.
(2008) *Bitcoin: A Peer-to-Peer Electronic Cash System*,
(accessed on 10 January 2022)
- Nivedha, S.
Progression of Cryptocurrency: A Taxation Concern
(2022) *International Journal of Law Management & Humanities*, 5 (1).
(accessed on 10 January 2022)
- Ogunbadewa, A.
The Bitcoin Virtual Currency: A Safe Haven for Money Launderers?
(2013) *SSRN Electronic Journal*,
- Omarova, S. T.
License to Deal: Mandatory Approval of Complex Financial Products
(2012) *SSRN Electronic Journal*,
- Ozili, P. K.
Decentralized finance research and developments around the world
(2022) *Journal of Banking and Financial Technology*, 6 (2), pp. 117-133.
- Pacy, E. P.
Tales from Cryptocurrency: On Biocoin, Square Pegs, and Round Holes
(2014) *New England Law Review*, 49, pp. 121-144.
- Pacy, E. P.
Tales from Cryptocurrency: On Biocoin, Square Pegs, and Round Holes
(2014) *New England Law Review*, p. 49.

- Paez, A.
Gray literature: An important resource in systematic reviews
(2017) *Journal of Evidence-Based Medicine*, 10 (3), pp. 233-240.
Portico
- Panetta, F.
(2022) *For A Few Cryptos More: The Wild West of Crypto Finance*,
European Central Bank. (accessed on 6 February 2022)
- Park, A.
(2017) *Managing Blockchain Transparency: Strategies for a Private/Open World*,
(accessed on 10 March 2022)
- Pavlidis, G.
Europe in the digital age: regulating digital finance without suffocating innovation
(2021) *Law, Innovation and Technology*, 13 (2), pp. 464-477.
- Paz, J.
(2022) *The Best Global Crypto Exchanges*,
Forbes. (accessed on 16 March 2022)
- Powell, F.
10 Best Crypto Apps & Exchanges of June 2023
(2023),
Forbes Advisor. (accessed on 1 June 2023)
- Prasad, E.
Central Banking in a Digital Age: Stock-Taking and Preliminary Thoughts
(2018) *Huchins Center on Fiscl & Monetary Policy*,
(accessed on 20 March 2022)
- Priem, R.
**Distributed ledger technology for securities clearing and settlement: benefits, risks,
and regulatory implications**
(2020) *Financial Innovation*, 6 (1).
- Reiff, N.
(2020) *JPMorgan to Launch JPM Coin. Investopedia*,
(March). (accessed on 20 March 2022)
- REIFF, N.
(2021) *Blockchain Won't Cut Out Intermediaries After All. Investopedia*,
(accessed on 25 March 2022)
- Reyes, C.
Conceptualizing Cryptolaw
(2017) *SSRN Electronic Journal*,
- Rivers, M. L.
(2022) *The World's First Regulated Crypto Bank Braces for Flood of Institutional Money*,
Forbes. (accessed on 21 April 2022)
- Schich, S.
Do Fintech and Cryptocurrency Initiatives Make Banks Less Special?
(2019) *Business and Economic Research*, 9 (4), p. 89.
- Schuster, E.
Cloud Crypto Land
(2020) *The Modern Law Review*, 84 (5), pp. 974-1004.
Portico

- Scott, B.
Visions of a Techno-Leviathan. The Politics of the Bitcoin Blockchain
(2015), p. 4.
Policy Paper
- Senarath, S.
Development of Virtual Currency and ICOs in Australia
(2022) *Law and Practice of Crowdfunding and Peer-to-Peer Lending in Australia, China and Japan*, pp. 41-65.
- Severin, A., Chataway, J.
Purposes of peer review: A qualitative study of stakeholder expectations and perceptions
(2020) *Learned Publishing*, 34 (2), pp. 144-155.
Portico
- Sokolov, K.
Ransomware activity and blockchain congestion
(2021) *Journal of Financial Economics*, 141 (2), pp. 771-782.
- Sonksen, C.
Cryptocurrency Regulations in ASEAN, East Asia, & America: To Regulate or Not to Regulate
(2021) *Washington University Global Studies Law Review*, p. 20.
- Spaeth, W., Peráček, T.
Cryptocurrencies, Electronic Securities, Security Token Offerings, Non-Fungible Tokens: New Legal Regulations for “Crypto Securities” and Implications for Issuers and Investor and Consumer Protection
(2022) *Developments in Information & Knowledge Management for Business Applications*, pp. 217-238.
- (2023) *Cryptocurrencies—Worldwide. Statista*,
(accessed on 8 May 2023)
- Stokes, R.
Virtual money laundering: the case of Bitcoin and the Linden dollar
(2012) *Information & Communications Technology Law*, 21 (3), pp. 221-236.
- Sultan, N., Mohamed, N., Martin, M., Latif, H. M.
Virtual currencies and money laundering: existing and prospects for jurisdictions that comprehensively prohibited virtual currencies like Pakistan
(2023) *Journal of Money Laundering Control*, 27 (2), pp. 395-412.
- Sutherland, A.
Cryptocurrency Economics and the Taxation of Block Rewards
(2019) *Taxnotes Federal*, 165 (5), pp. 749-771.
- Tepper, T., Schmidt, J.
Best Crypto Exchanges of March 2022
(2022),
Forbes Advisor. (accessed on 8 May 2023)
- **The Trust Machine**
(2015) *The Economist*,
- Tu, K., Meredith, M.
Rethinking Virtual Currency Regulation in the Bitcoin Age
(2015) *Washington Law Review*, 90 (1).

- Vandezande, N.
Virtual currencies under EU anti-money laundering law
(2017) *Computer Law & Security Review*, 33 (3), pp. 341-353.
- Vansh, S.
(2020) *A Deep Dive into Blockchain*,
(accessed on 19 June 2022)
- Ward, O., Rochemont, S.
(2019) *Understanding Central Bank Digital Currencies (CBDC)*,
- Wexler, R., Abramowicz, M., Ayres, I.
Liberty, and Trade Secrets: Criminal Justice System
(2018) *Stanford Law Review Life*, 70 (May), pp. 1343-1429.
- Kathryn, W, Arushi, G, Sandra, W.
(2022) *Cryptocurrency Regulation: Where Are We Now, And Where Are We Going?*,
(accessed on 12 June 2022)
- Wright, A., De Filippi, P.
Decentralized Blockchain Technology and the Rise of Lex Cryptographia
(2015) *SSRN Electronic Journal*,
- Wronka, C.
Crypto-asset activities and markets in the European Union: issues, challenges and considerations for regulation, supervision and oversight
(2023) *Journal of Banking Regulation*,
- Wu, B., Duan, T.
The Advantages of Blockchain Technology in Commercial Bank Operation and Management
(2019) *Proceedings of the 2019 4th International Conference on Machine Learning Technologies*,
- Xie, R.
Why China Had to Ban Cryptocurrency but the U.S. Did Not: A Comparative Analysis of Regulations on Crypto-Markets between the U.S. and China
(2019) *Wash. U. Global Stud. L. Rev*, 18 (2), pp. 457-489.
- Zaring, D.
The Use of Foreign Decisions by Federal Courts: An Empirical Analysis
(2006) *Journal of Empirical Legal Studies*, 3 (2), pp. 297-331.
Portico
- Zetsche, D. A., Annunziata, F., Arner, D. W., Buckley, R. P.
The Markets in Crypto-Assets regulation (MiCA) and the EU digital finance strategy
(2021) *Capital Markets Law Journal*, 16 (2), pp. 203-225.
- Zetsche, D. A., Arner, D. W., Buckley, R. P.
Decentralized Finance
(2020) *Journal of Financial Regulation*, 6 (2), pp. 172-203.
- Zetsche, D. A., Buckley, R. P., Arner, D. W.
The Distributed Liability of Distributed Ledgers: Legal Risks of Blockchain
(2017) *SSRN Electronic Journal*,

Correspondence Address

Dhali M.; College of Law, Saudi Arabia; email: mdhali@psu.edu.sa

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