



Imposition of Tax Law on Cryptocurrencies and NFT in Indonesia

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Abstract

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Abstract

This research investigates the potential for government revenue through taxation of digital currencies, commonly known as cryptocurrencies, and digital assets such as NFTs. Employing a normative research methodology, the study analyzes the appropriate tax rates for cryptocurrencies and NFTs and examines existing taxation policies. Additionally, the research explores how different countries regulate and tax these digital assets, revealing a lack of consensus on their legal status and regulatory frameworks. The findings aim to provide insights into how varying tax policies impact revenue generation and offer recommendations for developing effective tax regulations.

A. Introduction

Technological advancements often present challenges and potential drawbacks in addition to the benefits. With the rise of digital technologies, including digital currencies and digital assets have brought significant strides in information technology and eliminated the need for intermediaries through the use of cryptographically linked data blocks, leading to the creation of a system known as Blockchain.¹

In recent years, Blockchain has emerged as a prominent and promising technology. Initially associated primarily with Bitcoin, the technology quickly gained popularity and value. Although Blockchain began as a framework closely linked to Bitcoin, its applications have expanded far beyond cryptocurrency. Today, Blockchain technology offers various advantages, including the enhancement of payment processes, data storage, and transactions. Its decentralized nature provides robust security by minimizing the impact of individual connection failures and eliminating intermediaries. This is particularly significant in addressing

¹ Arslanian, H., & Fischer, F. Blockchain As an Enabling Technology. In *The Future of Finance* (pp. 113–121). 2019. Springer International Publishing. https://doi.org/10.1007/978-3-030-14533-0_10



issues of data misuse, such as the frequent illegal trading of credit card customer data. In contrast, Blockchain's design inherently prevents such unauthorized practices.²

The financial industry has embraced Blockchain technology. Cryptocurrency, notably Bitcoin, exemplifies a major application of Blockchain and has contributed to its widespread recognition. Unlike conventional financial systems, which are subject to the regulations and authorities of multiple institutions, cryptocurrencies operate within a decentralized framework.³ In the case of Bitcoin, blocks are validated by "miners" who are rewarded with Bitcoin or other cryptocurrencies, such as Ethereum. These miners use specialized computing devices, referred to as "excavators," to validate and add blocks to the Blockchain, a process known as "cryptocurrency mining."

This overview illustrates how Blockchain principles have the potential to transform financial transactions. By replacing traditional processes with Blockchain technology, the financial sector could significantly enhance the efficiency of payment systems. Currently, credit card transactions may take hours or even days to process. In contrast, Blockchain enables real-time payments through a process known as general ledger adjustments. Consequently, Blockchain has the potential to revolutionize traditional transaction methods by facilitating automated, cost-effective, transparent, and secure contract execution.⁴

An analysis of the literature reveals that Blockchain technology has diverse applications beyond its initial use in cryptocurrencies. Notably, N. Szabo's introduction of "smart contracts" exemplifies one such application. Smart contracts utilize computer protocols to automate the execution of contract terms⁵ through Blockchain systems, enhancing their efficiency and reliability. This innovative approach has the potential to reduce or even eliminate the need for intermediaries such as lawyers and banks in property transactions. Additionally, smart contracts can be applied to both tangible and intangible property management.⁶

A prominent example of Blockchain technology facilitating smart contracts is Ethereum, a decentralized platform proposed by Vitalik Buterin.⁷ Ethereum extends the functionality of the Bitcoin Blockchain by supporting a broader range of applications. According to Gunay, Blockchain technology enables contract execution through encryption, thereby obviating the need for traditional third-party intermediaries such as notaries. This advancement allows for secure, peer-to-peer transactions and trust-building across global networks via the Internet. Georgia's pioneering implementation of Blockchain technology for land registration serves as a notable case of its practical applications. By transitioning from outdated bureaucratic processes to a Blockchain-based system, Georgia has streamlined land registration, demonstrating the potential of Blockchain to enhance administrative efficiency.⁸

² Kwak, J.-H. A conceptual model of crypto-currency for travel using a blockchain consensus mechanism. In *International Journal of Tourism and Hospitality Research* (Vol. 33, Issue 3, 2019, pp. 143–154). Korea Tourism Research Association. <https://doi.org/10.21298/ijthr.2019.3.33.3.143>

³ Omote, K., & Yano, M. Bitcoin and Blockchain Technology. In *Economics, Law, and Institutions in Asia Pacific* (pp. 129–136). 2020. Springer Singapore. https://doi.org/10.1007/978-981-15-3376-1_8

⁴ Reinhard, B. Zehn Jahre Blockchain – Bitcoin, Crypto Kitties und die digitale Blockchain-ID – Eine Reise. In *Wirtschaftsinformatik & Management* (Vol. 11, Issue 2, 2019, pp. 81–83). Springer Fachmedien Wiesbaden GmbH. <https://doi.org/10.1365/s35764-019-00165-x>

⁵ Westerkamp, M. Verifiable Smart Contract Portability. In *2019 IEEE International Conference on Blockchain and Cryptocurrency (ICBC)*. IEEE. 2019. <https://doi.org/10.1109/bloc.2019.8751335>

⁶ Jung, G. A Study on the legal nature of cryptocurrency and a smart contract. In *Commercial Law Review* (Vol. 36, Issue 4, 2019, pp. 109–150). Korean Commercial Law Association. <https://doi.org/10.21188/clr.36.4.4>

⁷ Tarkhanov, I. Ethereum-based cryptocurrency reliability assessment method. In *Artificial societies* Vol. 14, Issue 3, 2019. LLC Integration Education and Science. <https://doi.org/10.18254/s207751800006336-8>

⁸ Wang, G., Wang, S., Bagaria, V., Tse, D., & Viswanath, P. Prism Removes Consensus Bottleneck for Smart Contracts. In *2020 Crypto Valley Conference on Blockchain Technology (CVCBT)*. 2020. IEEE. <https://doi.org/10.1109/cvcbt50464.2020.00011>

The novelty of this article lies in the emphasis on the need for legal regulations addressing digital assets and digital currencies. Currently, Indonesia lacks specific tax regulations for cryptocurrencies and digital assets, creating a potential for tax evasion. This legal vacuum hampers the optimization of state revenue from cryptocurrency investments and NFT transactions, despite their substantial potential. Addressing this regulatory gap is crucial for establishing comprehensive tax provisions and improving tax compliance in the realm of digital assets.

An NFT (Non-Fungible Token) is a type of digital token primarily utilizing Ethereum blockchain technology to signify ownership of digital assets. These assets can include music, videos, images, collections, or other digital files, such as game equipment or characters. Each NFT serves as proof of ownership of a specific asset, which is typically digital, though they are also marketed as evidence of ownership of real-world assets.

Ownership of an NFT is verified through 'irreversible and cryptographically secured records on the blockchain.' These records act as a form of 'digital certificate of title' or 'stamp of authenticity,'⁹ providing a secure and verifiable claim of ownership within the digital realm. The actual digital asset associated with the NFT is stored on a 'separate, cryptographically secured server' owned by the host platform, while the ownership information is maintained on the blockchain.

An NFT represents the tokenization of rights associated with an asset, such as licensing rights for a specific combination of digital art. Thus, possessing an NFT equates to holding the rights summarized within the token. Recently, NFTs related to art collections have gained considerable popularity. For example, individuals such as Gozali and Ahmed have significantly raised awareness of NFTs by achieving substantial financial success from selling digital images on NFT platforms.¹⁰

B. Discussion

Cryptocurrency refers to digital currencies that are open source, mathematically based, and operate within peer-to-peer networks. Unlike traditional currencies, cryptocurrencies lack centralized management and oversight. They rely on cryptographic principles to ensure security and facilitate transactions within a decentralized framework, independent of a central authority.¹¹ Essentially, cryptocurrencies provide a virtual means of payment for goods and services, functioning without a central regulatory body.¹²

However, there is a notable legal deficiency regarding the definition and regulation of cryptocurrencies at both international and national levels. The absence of comprehensive regulatory frameworks allows cryptocurrencies to exist with a degree of independence from formal legal structures. This situation creates the perception that cryptocurrencies are autonomous entities not subject to conventional legal oversight. Nonetheless, this status is

⁹ Muthe, K. B., Sharma, K., & Sri, K. E. N. A Blockchain Based Decentralized Computing And NFT Infrastructure For Game Networks. In *2020 Second International Conference on Blockchain Computing and Applications (BCCA)*. IEEE. 2020. <https://doi.org/10.1109/bcca50787.2020.9274085>

¹⁰ Penowo, A. *Saingi Ghazali Everyday, Bocah 12 Tahun Lebih Tajir Jualan di NFT*. WwW.Pikiranrakyat.Com. <https://karanganyarnews.pikiran-rakyat.com/teknopr-1903629068/saingi-ghozali-everyday-bocah-12-tahun-lebih-tajir-jualan-di-nft>

¹¹ Busulwa, R., & Evans, N. (2021). Blockchain and other distributed ledger technologies. In *Digital Transformation in Accounting* (pp. 265–278). Routledge. <https://doi.org/10.4324/9780429344589-24>

¹² Al-Rawy, M., & Elci, A. (2018). A Design for Blockchain-Based Digital Voting System. In *Advances in Intelligent Systems and Computing* (pp. 397–407). Springer International Publishing. https://doi.org/10.1007/978-3-030-02351-5_45

expected to change as international organizations and national institutions increasingly work towards establishing legal frameworks for these digital assets.¹³

In many jurisdictions, the legal status of cryptocurrencies remains uncertain, with some countries recognizing them and others deeming them illegal. While some nations have developed the necessary legal and technological infrastructure to accommodate cryptocurrencies, others are still in the process of exploration. The unique characteristics and technological requirements of cryptocurrencies introduce gaps in national economic frameworks, leading to various challenges and opportunities. Economic authorities and policymakers face limitations in leveraging existing economic theories to address these gaps and make optimal decisions regarding the integration of cryptocurrencies into the broader economy.

The search for legal regulations on cryptocurrencies is crucial for reflecting the impact of this technological innovation on social, political, economic, and financial spheres at both national and international levels. Cryptocurrencies operate within a decentralized system created by individuals or institutions beyond public authority and control. This system allows participants to remain anonymous and conduct transactions without significant oversight, creating an environment conducive to sensitive illegal activities such as money laundering, illicit trade, illegal gambling, tax evasion, and terrorism financing.¹⁴

The economic impact of cryptocurrencies can be substantial, potentially resulting in significant income losses for national economies. The cryptocurrency ecosystem, including blockchain architecture and mining activities, introduces uncertainties in establishing legal and regulatory frameworks, particularly for tax purposes. Addressing how to tax such new activities without established legal infrastructure remains a complex issue.

To mitigate these challenges, many countries are developing their own digital currencies as alternatives to cryptocurrencies. This move is intended to harness the benefits of digital currencies while maintaining regulatory control. For developing countries, cryptocurrencies present both opportunities and risks. For instance, India's cryptocurrency market has experienced rapid growth due to the emergence of exchange platforms, prompting the government under Narendra Modi to impose high taxes on cryptocurrencies and NFTs.¹⁵

While some developing countries view cryptocurrencies as solutions to issues like national currency depreciation and speculative attacks, others remain cautious or have outright banned certain cryptocurrency transactions. For example, China began prohibiting specific transactions in the cryptocurrency market in 2017. South Korea and Thailand are exploring regulatory measures, and Vietnamese law currently does not recognize cryptocurrencies as taxable assets, having declared them non-legal means of payment at the end of 2017.¹⁶

In Indonesia, the legalization and regulation of cryptocurrencies are addressed in Regulation No. 5 of 2019 issued by the Commodity Futures Trading Regulatory Agency (*Bappebti*). This regulation specifies that crypto assets, including cryptocurrencies, are considered commodities linked to peer-to-peer networks and distributed ledgers.

¹³ Yano, M., Dai, C., Masuda, K., & Kishimoto, Y. (2020). Creation of Blockchain and a New Ecosystem. In *Economics, Law, and Institutions in Asia Pacific* (pp. 1–19). Springer Singapore. https://doi.org/10.1007/978-981-15-3376-1_1

¹⁴ Riehl, J. R., & Ward, J. (2020). Transaction Pricing for Maximizing Throughput in a Sharded Blockchain Ledger. In *2020 Crypto Valley Conference on Blockchain Technology (CVCBT)*. IEEE. <https://doi.org/10.1109/cvcbt50464.2020.00008>

¹⁵ Melani, A. (2022). *India Bakal Kenakan Pajak 30 Persen untuk Kripto hingga NFT*. *Www.Liputan6.Com*. <https://www.liputan6.com/crypto/read/4875391/india-bakal-kenakan-pajak-30-persen-untuk-kripto-hingga-nft>

¹⁶ Le, T.-H., Park, D., Tran, C.-P.-K., & Tran-Nam, B. (2018). The Impact of the Hai Yang Shi You 981 Event on Vietnam's Stock Markets. In *Journal of Emerging Market Finance* (Vol. 17, Issue 3). SAGE Publications. <https://doi.org/10.1177/0972652718798215>

Cryptocurrency, as a type of crypto asset, operates through cryptographic technology to ensure secure data transmission and facilitate digital currency exchanges. Essentially, cryptocurrencies function as virtual currencies with capabilities similar to traditional currencies but are utilized for virtual transactions. Bitcoin, being the first and most renowned cryptocurrency, is joined by various alternative coins such as Ethereum, Ripple, and Litecoin. These cryptocurrencies are based on decentralized peer-to-peer networks controlled entirely by users.

Indonesia presents significant potential for cryptocurrency investment. With appropriate regulatory measures, the country stands to benefit considerably from cryptocurrency development. According to Indonesian tax regulations, cryptocurrencies, classified as crypto assets, are subject to Value Added Tax (VAT) under Article 4A Paragraph (2) of Law No. 42 of 2009 on VAT and Luxury Goods Tax (*PPnBM*). Therefore, cryptocurrencies qualify as objects of VAT.

Furthermore, cryptocurrencies are categorized as commodities under Article 2 of Regulation No. 99 of 2018 issued by the Minister of Trade regarding the General Policy for Crypto Asset Futures Trading. Consequently, capital gains derived from cryptocurrency transactions are subject to Income Tax, as stipulated in Article 17 Paragraph (1) letter a of Law No. 36 of 2008. This law outlines the tax rate applicable to taxable income for domestic individual taxpayers, ensuring that cryptocurrency-related income is appropriately taxed.

Taxable Income Layer	Tax Rate
up to Rp50,000,000.00 (fifty million rupiah)	5% (five percent)
above Rp50,000,000.00 (fifty million rupiah) up to Rp250,000,000.00 (two hundred and fifty million rupiah)	15% (fifteen percent)
above Rp250,000,000.00 (two hundred and fifty million rupiah) to with Rp500,000,000.00 (five hundred million rupiah)	25% (twenty-five percent)
above Rp500,000,000.00 (five hundred million rupiah)	30% (thirty percent)

The use of cryptocurrencies as an investment option in Indonesia presents significant potential for tax revenue. The increasing number of users and the growing trading volume underscore this potential. As of December 31, 2021, data from the Commodity Futures Trading Supervisory Agency (*Bappebti*) of the Indonesian Ministry of Trade indicated that there were 10 million investors, with a trading volume nearing IDR 500 trillion.¹⁷

The potential for tax revenue from digital currencies and assets can be assessed from two perspectives. First, on the sales side, Value Added Tax (VAT) can be generated from companies categorized as Taxable Entrepreneurs (*PKP*). Second, Income Tax (*PPh*) can be derived from the capital gains realized by investors in cryptocurrencies or NFTs, specifically the margin between the selling and buying rates. This margin represents taxable gains.

This study emphasizes the aspects of Income Tax on cryptocurrency and NFT transactions in Indonesia. Taxpayers, including individuals, have a legal obligation to report and pay Income Tax on these transactions through their Annual Tax Return. However, tax literacy remains a significant challenge, as many cryptocurrency and NFT users may not fully understand their reporting obligations. This lack of awareness can lead to underreporting and, consequently, a reduction in the state's tax revenue from these investments. Addressing tax literacy is crucial

¹⁷ Olavia, L. (2022). *Sepanjang 2021, Ini Pencapaian Investasi Kripto di Indonesia*. Beritasatu.Com. <https://www.beritasatu.com/ekonomi/873895/sepanjang-2021-ini-pencapaian-investasi-kripto-di-indonesia>

for improving compliance and maximizing potential tax revenues from digital asset investments.

The regulatory and tax treatment of digital assets and cryptocurrencies varies significantly across countries. There is no universal consensus on how cryptocurrencies should be classified or taxed. Different nations approach cryptocurrencies differently: some view them as barter transactions, while others classify them as property. This lack of a unified framework reflects the broader challenge of establishing consistent global regulations for digital assets.

The issue of regulatory gaps and taxation is not limited to developing countries like Indonesia. Even economically stable nations are grappling with how to address cryptocurrencies through tax rules and legislation. Many governments express concerns about the high risks associated with cryptocurrencies, including their potential use in unregulated transactions and illegal activities such as money laundering, terrorism financing, and tax evasion. In response to these concerns, countries like Australia, Canada, and Iceland have begun to expand and refine their legal frameworks to better manage and mitigate risks in the cryptocurrency market. Despite these efforts, a global consensus on the terminology and regulatory approach to cryptocurrencies remains elusive. Table 1 presents different terms used by different countries to refer to cryptocurrencies.

Table 1. Countries with the term cryptocurrency

Country Name	Terms Used
Argentina, Thailand and Australia	digital currency
Canada, China, Taiwan	virtual commodities
German	crypto-token
Switzerland	payment token
Italy, Lebanon	cyber currency
Honduras, Mexico	virtual assets

Source: Multiple Sources.

The global landscape for cryptocurrency regulation and taxation is marked by significant variation. The approach to cryptocurrencies differs widely among countries. Some nations impose outright bans on cryptocurrencies, while others have implicit prohibitions. Additionally, several countries, such as France, Finland, Belgium, Denmark, Mozambique, Namibia, and South Africa, lack a comprehensive or partial regulatory framework for cryptocurrencies.

Conversely, some countries, including Spain, Belarus, and Luxembourg, see substantial potential in cryptocurrency technology and are developing regulations to attract investment in technology companies. These nations aim to harness the benefits of blockchain technology while establishing a regulatory environment that fosters innovation.

Taxation remains a particularly complex issue. Different countries classify cryptocurrencies in various ways for tax purposes. For instance, Israel, Bulgaria, and Switzerland treat cryptocurrencies as assets, financial assets, or foreign currencies. In contrast, Argentina, Spain, and Denmark categorize cryptocurrencies as income for tax purposes, with implications for income tax and, in the case of businesses, corporate taxes. The United Kingdom, however, does not apply Value Added Tax (VAT) to profits generated from cryptocurrency investments. This diversity in regulatory and tax treatment underscores the global challenge of creating a unified approach to managing and taxing digital assets.

Table 2. Taxation Status against Cryptocurrencies in Some Countries.

Country	Taxation Status
United States	Cryptocurrencies do not have legal tender status in the U.S. In addition they are considered property for U.S. federal tax purposes. Whatever tax policy is applied to property transactions, the same tax principle

	applies to transactions using cryptocurrencies. If employees are paid wages in cryptocurrency, these wages are subject to federal income tax deductions and payroll taxes. If payments are made to independent contractors and other service providers in cryptocurrencies, these payments are subject to taxes and self-employment tax rules apply. If payments made using cryptocurrencies are subject to reporting
Russia	Cryptocurrency transactions were banned in 2015, but withdrew them in early 2018 the Russian Ministry of Finance explained that they are working on legislation to regulate cryptocurrency transactions without completely banning them and through this law it is possible to tax cryptocurrency transactions to support the state budget.
Australia	In this country every cryptocurrency transaction should be recorded to determine its status against taxes Have guidance on cryptocurrency taxation in 2014. According to the guidelines, cryptocurrency transactions are treated like barter transactions. If an individual sells or award cryptocurrencies, trades or exchanges cryptocurrencies (including the release of one cryptocurrency for another)
Canada	Cryptocurrency is defined as a digital currency or virtual money that can be used to buy and sell goods or services on the Internet, and cryptocurrency is accepted as a digital currency. Digital currencies that are cryptocurrencies can be sold or bought like commodities. Tax liability may arise, in this context. According to the Canadian implementation, cryptocurrencies are subject to the Income Tax Act. In addition, the Canadian Revenue Agency should be notified of the use of cryptocurrencies, otherwise it is not legal."
Cyprus	In Cyprus, the term virtual currency is used to describe cryptocurrencies. The Central Bank of Cyprus states that the purchase, storage, or trading of virtual currencies is not a legitimate means of payment. Also, there is no regulatory framework on cryptocurrencies, and the public warns of the potential downsides of cryptocurrencies.

	Profits from cryptocurrency trading are not taxed, including trading other securities such as stocks and forex.
France	Cryptocurrency is defined as an unregulated virtual currency with no replacement guarantee. Virtual currencies have no legal or regulatory status. In addition, cryptocurrencies are criticized for aiding criminal activities. Another report published by Banque de France in 2018 stated that cryptocurrencies are not accepted as currencies. Therefore there is no guarantee of security, convertibility or value. However, Banque de France suggests a regulatory framework for dealing with cryptocurrency losses. ¹ One-time profits earned from cryptocurrencies are considered capital gains and taxed.
England	Cryptocurrencies are not classified as legal tender in the UK and do not have specific cryptocurrency laws. ⁷ If individuals in the UK hold cryptocurrencies for investment, these are considered assets, and the profits to be earned are subject to capital gains taxation. Individuals who trade in cryptocurrencies are taxed as income on their profits. In the case of companies, profits or losses on cryptocurrencies are taxed as income. The UK Tax Authority has published guidance on the temporary VAT treatment of cryptocurrencies. Lastly, no transfer tax is paid in the UK.
Spain	Cryptocurrencies are not permitted by any regulations in Spain. However, the government aims to make some arrangements for the cryptocurrency, which will include possible tax cuts for companies in the blockchain technology sector. The profits of cryptocurrencies are taxed under the Individual Income Tax Act.
Argentina	Cryptocurrency is not a legal currency in Argentina, as it is not issued by the government. So that the profit increase in value or the results of the trade is not taxed.
China	In 2017 the Chinese government announced that initial coin offerings were banned in China, and the government did not recognize cryptocurrencies as a legitimate means of payment.

Source; (Barth, 2019) Abstracted by the author from various references and literature

Cryptocurrency tax policies vary significantly across countries, reflecting differing perspectives on digital assets. The lack of consensus on the legal status of cryptocurrencies is mirrored by the diversity in tax regulation and policy. While a few countries have established comprehensive regulatory frameworks that address ownership, trading, and taxation of cryptocurrencies, many others have only partial regulations or lack a coherent framework altogether. This variation highlights the global challenge of harmonizing approaches to cryptocurrency regulation and taxation.

C. Conclusion

The discussion underscores the need for a clear legal framework regarding digital assets and cryptocurrencies. The absence of specific tax regulations for cryptocurrencies and digital assets, such as NFTs, in Indonesia creates a legal vacuum that could lead to tax avoidance. This gap in the regulatory landscape means that state revenue from taxes on cryptocurrency investments and NFT transactions remains suboptimal, despite the significant potential for tax revenue. Addressing this issue through the development of comprehensive tax laws and regulations is crucial to ensure that the potential tax revenue from these emerging digital assets is fully realized.

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