

# DIGITAL JURISPRUDENCE: THE LEGAL FIELD OF CRYPTOCURRENCIES

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**Abstract.** *Digital jurisprudence as a branch of law that studies the legal aspects of digital technologies is facing unprecedented challenges in the era of rapid innovation. One of the most revolutionary innovations in the digital sphere has been the emergence of cryptocurrencies – decentralized digital assets that function based on blockchain technology. Bitcoin, as the first and most well-known cryptocurrency, has caused tremendous resonance since its launch in 2009 and sparked heated discussions about its legal nature and the need for regulation. Today, the cryptocurrency market continues to grow rapidly, attracting private investors large corporations, and even government agencies. However, despite the growing popularity, the legal status of digital assets remains uncertain in many jurisdictions. The diverse approaches to the regulation of cryptocurrencies in different countries, from complete prohibition to free circulation, create a complex and contradictory picture on a global level.*

*The uncertainty in digital jurisprudence regarding the status of cryptocurrencies carries numerous risks and challenges. On one hand, the absence of clear legal norms can contribute to the use of cryptocurrencies in illegal money laundering schemes or financing of terrorist organizations. On the other hand, excessive regulation can hinder the development of innovation and impede the realization of the potential of new technologies. At the same time, harmonization of norms at the international level is a complex task due to significant differences in the approaches of different countries.*

*In this article, we will examine topical issues of the legal regulation of cryptocurrencies through the lens of digital jurisprudence, analyze problems of determining their status, requirements for crypto exchanges and conducting ICOs, risks of using digital assets for illegal purposes, as well as prospects for the development of regulation in this area.*

**Key words:** *digitalization of judiciary, legislative regulation, digital assets, blockchain, legal regulation, cybersecurity, innovative technologies, data protection.*

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**Statement of the problem.** The rapid growth of virtual currencies and blockchain technology in recent years has posed a challenging task for regulators around the world – to find the right balance in regulating decentralized currencies so as not to hinder innovation [1]. On the one hand, the use of cryptocurrencies and blockchain has been recognized as a new global trend. But on the other hand, there are real concerns about possible fraud, money laundering, and other illegal activities associated with virtual currencies. However, most countries currently do not have specific laws or regulations to govern cryptocurrencies [2]. Although some existing provisions could potentially apply to them, the main problem lies in how to classify virtual currencies, since they have features of different types of assets, such as a means of payment, product, or security, and do not fall under traditional regulatory definitions. Because of this, any discussions about which specific cryptocurrencies will ultimately be regulated in a given country inevitably turn into guesswork based on the current understanding of the classification of virtual currencies and regulatory frameworks. Depending on how regulators ultimately qualify cryptocurrencies (as a means of payment, product, or security), different rules for their regulation may apply.

The widespread adoption of virtual currencies by users has reached markets across many countries, sparking lively discussions among lawyers, legislators, and regulators [3]. As is often the case, technological and business innovations precede relevant regulations, and the virtual currency business has been no exception [4].

The cryptocurrency ecosystem has both a global and local character. Its rapid growth has raised a wide range of issues – from local mining to global crypto exchanges. Participants in this crypto ecosystem provide and consume services and products, daily ignoring limitations outlined in laws and regulations governing banking, payment systems, and capital markets. This situation is observed in most countries. Despite the global growth of the cryptocurrency market, legal regulation of this sphere remains imperfect and fragmented across different countries. The lack of clear and unified norms creates uncertainty for participants in the crypto market and hinders the development of innovations. Therefore, there is an urgent need for thorough scientific research that will help develop balanced approaches to regulating virtual currencies and blockchain technologies at the national and international levels.

The state of research of the problem. Digital assets and their legal regulation are a relatively new phenomenon in judicial practice that is rapidly evolving and encompasses a wide range of scientific issues. Several scholars have been engaged in solving these problems [3-6]. The authors G. Habib et al. analyzed blockchain technology, its applications in various fields, and the critical threats that this innovation may cause [7]. S. Chan et al. investigated risk management with cryptocurrencies [5]. C. Watters highlighted the challenges associated with defining categories of digital decentralized assets (DDAs) within traditional legal frameworks. The author emphasized the need for a simple taxonomy that takes into account the dynamic nature of digital currencies while also allowing for

flexibility [8]. Researchers D.J. Cumming et al. studied the potential risks of applying the existing legal framework to the constantly evolving ecosystem [6]. Sanz-Bas et al. analyzed legal instruments for combating criminal activity related to the phenomenon of cryptocurrencies [9]. Despite the valuable research by the aforementioned authors, scientific work on digital assets and their legal regulation remains insufficient and fragmented. The rapid pace of technological development and the constant emergence of new types of digital assets require more thorough, systematic research to comprehensively understand the legal implications, risks, and issues associated with their use. Further efforts are needed to study best regulatory practices, international coordination, consumer protection, and prevention of abuse in the digital asset sphere. Only a comprehensive and coordinated approach by scholars, lawmakers, regulators, and industry experts can provide an effective legal environment for the safe and responsible use of digital assets.

**Presentation of the main research material.** The European Central Bank (ECB) defines virtual currencies as “a digital representation of value, not issued by a central bank, credit institution or e-money institution, which, in some circumstances, can be used as an alternative to money” [19]. It explains that virtual currencies, despite being able to be used as an alternative to money, are not money or legal tender from a legal perspective, unlike electronic money [11]. This means that no one is obliged to accept payments in virtual currencies.

The ECB provides further clarification by proposing three subcategories of virtual currencies, classified according to their interaction with legal tender (or similar instruments) and their ability to be used to purchase physical goods and services. These subcategories are [10]:

1. Closed virtual currency schemes. These are virtual currencies that do not interact with the real world. They cannot be obtained using legal tender (or similar instruments), cannot be exchanged for legal tender, and cannot be used to purchase goods and services in the real economy. For example, World of Warcraft (WoW) gold, is an in-game virtual currency that WoW players can use to advance to higher levels in the game.

2. Virtual currency schemes with unidirectional flow. These are virtual currencies that can be purchased with fiat currency, but cannot be converted back into fiat currency. For example, Facebook credits or air miles in airline loyalty programs.

3. Virtual currency schemes with bidirectional flow. These are virtual currencies that users can buy and sell at an exchange rate with fiat currency, and which can be used to purchase physical goods and services. The most common examples of bidirectional fiat currencies are cryptocurrencies.

With the growing interest in virtual currencies and the increasing complexity of cryptocurrency service business models, an additional layer of complexity arises in classifying tokens and coins both within and outside the realm of financial instruments. Cryptocurrency exchanges

facilitate the exchange of virtual assets using fiat money or virtual currencies [12]. Miners verify virtual currency transactions using cryptographic methods, employing specialized mining hardware. In exchange, or as a reward, they receive a portion of the virtual currencies they mine. In some cases, miners may receive an additional percentage of the transaction fee from users for the urgency of confirming transactions.

The rapid spread of cryptocurrencies has led to the emergence of the global blockchain phenomenon. Its core functions, immutability, and decentralization, have expanded the possibilities of transactions without regard for borders or institutional approvals. So far, there is no clear universal legislative framework regulating cryptocurrencies. In many jurisdictions, cryptocurrencies are not considered legal tender or electronic money. Rather, they are digital assets with a limited currency role or a useful function within a defined cooperative system. They are typically referred to as payment instruments, agreed upon by the parties entering into a monetary agreement.

As the cryptographic space grows exponentially, the cybersecurity of cryptocurrency exchanges and issues of consumer protection and privacy require particular attention. Cryptocurrency exchanges may be subject to hacker attacks. Even if specific norms regarding compliance with cybersecurity requirements for crypto exchanges have not been adopted, cryptocurrency exchanges should independently implement compliance standards [2].

The regulation of the cryptocurrency market across different countries is quite uneven and at various stages of development. Some countries have already implemented fairly clear rules, while others are still determining their stance toward digital assets. Several countries have imposed a complete or partial ban on the circulation of cryptocurrencies (for example, in China, and some Arab countries). In many countries around the world, cryptocurrencies have an undefined legal status, and there is no specific legislation governing them. Other countries are developing special laws and regulations to govern the crypto market (such as the United States, Japan, Switzerland, Malta, and others). Some countries are including cryptocurrency operations under existing laws on securities, anti-money laundering, and other areas.

Despite the diversity of approaches, most experts agree that the cryptocurrency market requires clear and understandable regulation at both the national and international levels. This is necessary to ensure transparency, and stability, protect investor rights, and combat cybercrime. At the regional and global levels, efforts are already underway to harmonize regulation. For example, the European Union has Anti-Money Laundering Directives that include rules for crypto companies. The FATF group of developed countries is developing recommendations for regulating virtual assets. However, there are still no universal international standards.

The adoption of harmonized laws at the national and international levels would eliminate regulatory uncertainty, strengthen the protection of investors and users of crypto services, and create favorable conditions for the

development of innovative blockchain projects within a legal framework. For countries with higher cryptocurrency adoption rates, establishing a comprehensive regulatory framework is crucial to support the development of the industry while mitigating potential risks.

### **Legal and Regulatory Landscape for Cryptocurrencies in Selected Nations with Highest Adoption Rates**

*Cryptocurrency Laws and Regulations in the Philippines.* The Bangko Sentral ng Pilipinas (BSP) regulates virtual currencies in the Philippines under Circular 944 issued in 2017 [13]. The BSP defines virtual currencies as any type of digital unit used as a medium of exchange. Bitcoin and other cryptocurrencies fall under this definition. The BSP requires virtual currency exchanges to register with the central bank. Exchanges must implement KYC/AML measures and meet capitalization requirements.

In 2022, the BSP issued guidelines classifying certain crypto assets as securities under Philippine law. Crypto asset offerings may require SEC registration [16]. The Philippines has tax laws imposing capital gains and income taxes on profits from buying/selling cryptocurrencies and from crypto mining. The Philippines enacted the Digital Asset Token Regulation Act in 2022 to establish a dedicated framework for regulating crypto assets [14]. The Act defines different types of crypto assets (e.g. utility tokens, security tokens) and regulates issuers and exchanges dealing with them. The Philippines has taken an open regulatory approach towards cryptocurrencies and created specific laws and regulations to govern this sector.

*Cryptocurrency Laws and Regulations in Indonesia.* Bank Indonesia, the central bank, has prohibited financial institutions from using cryptocurrencies as payment instruments since 2018. However, trading cryptocurrencies is not illegal in Indonesia. The Commodity Futures Trading Regulatory Agency regulates crypto exchanges. In 2019, Indonesia passed a law recognizing cryptocurrencies as commodities that can be traded on exchanges [15]. The law does not accept cryptocurrency as legal tender. The rupiah remains the only legal currency. Crypto exchanges must register with the Commodity Futures Trading Regulatory Agency and implement AML/KYC regulations.

Indonesia's Financial Services Authority banned financial firms from facilitating crypto sales in 2017. This prevents banks from providing crypto exchange services. Cryptocurrency transactions are subject to income tax in Indonesia. Gains from trading must be reported as taxable income. A new omnibus bill approved in 2020 outlines government powers to regulate digital assets and proposes a licensing regime. However, details remain unclear [16]. Indonesia still lacks a comprehensive regulatory framework even though crypto transactions are legal and taxable. The regulatory approach remains cautious.

*Cryptocurrency Laws and Regulations in Pakistan.* The State Bank of Pakistan (SBS) first banned cryptocurrencies and crypto trading in 2018 [17]. In 2022,

the SBP Act was amended to formally prohibit all cryptocurrency transactions and mining in Pakistan [18]. The amendment declares that cryptocurrencies like Bitcoin are not legal tender and cannot be used for trade or investment purposes. Entities are prohibited from enabling or engaging in crypto transactions, including exchanges, wallets, miners, and other facilitators. The law imposes fines and prison sentences for violating the crypto ban. Banks are barred from dealing with crypto assets. However, the ban has been legally challenged in court. The Islamabad High Court has temporarily suspended the criminalization sections of the law.

Currently, the legal status of cryptocurrency remains murky. The blanket ban has made it difficult for companies to operate crypto businesses in Pakistan. The volatile legal environment has prevented the emergence of a regulated cryptocurrency market in Pakistan despite growing interest among citizens. Pakistan maintains one of the strictest stances globally in prohibiting cryptocurrencies within its financial system.

*Cryptocurrency Laws and Regulations in Brazil.* Cryptocurrencies are legal and allowed in Brazil. The country has taken an open regulatory approach. The Brazilian Federal Reserve recognizes cryptocurrencies as assets or financial assets under existing laws. However, cryptocurrencies are not considered legal tender and Brazil does not officially use or regulate a digital currency. In 2021, a new law introduced regulation for cryptocurrency exchanges and custody service providers in Brazil. However, the law has not yet been fully implemented. These entities must obtain authorization from the federal government and implement AML/KYC controls. The Brazilian IRS taxes crypto transactions. There are specific tax rules for individuals and companies carrying out activities involving cryptocurrencies. In 2022, Brazil enacted a law defining crimes related to cryptocurrencies like fraud, pyramid schemes, and manipulation [19]. Penalties include fines and jail. The Brazilian Securities Commission is working on regulations to classify and govern different types of crypto assets, especially those deemed securities. Brazil has taken steps to integrate cryptocurrencies into its financial markets while balancing risks through dedicated regulation and oversight.

*Cryptocurrency Laws and Regulations in Thailand.* Thailand has taken a progressive approach to regulating cryptocurrencies. The Bank of Thailand does not recognize cryptocurrencies as legal tender or currency. However, cryptocurrencies are not illegal. The Securities and Exchange Commission regulates crypto businesses. In 2018, regulations took effect requiring crypto exchanges, brokers, and dealers to register with the SEC [20]. They must meet cybersecurity, AML, and consumer protection requirements. In early 2022, Thailand passed a law to specifically regulate digital asset businesses. It imposes stricter rules around capital, reporting, audits, and licensing [21]. The law defines "digital assets" and sets penalties for operating unauthorized crypto businesses up to two years imprisonment and fines [22]. Crypto exchanges and platforms must warn customers

that cryptocurrencies are highly volatile and unprotected by deposit insurance. In addition, cryptocurrency transactions are subject to a 7% capital gains tax plus value-added tax in Thailand. The Bank of Thailand limits banks' engagement with crypto and discourages transactions that use cryptocurrencies instead of the Thai Baht.

Thailand permits crypto activity but emphasizes consumer protection and prudent regulation of crypto asset businesses. The Thai government took a major step towards promoting cryptocurrency adoption on March 7, 2023, when the Cabinet approved a draft Royal Decree exempting taxes on investment tokens [23]. Investment tokens refer to digital tokens that give holders the right to invest in a specific project or business. Once promulgated and passed into law, the Royal Decree will create tax exemptions for both offering and trading investment tokens. In the primary market, no tax will be levied when investment tokens are first issued and offered to investors. Similarly, secondary market trading of these tokens will be tax-free. The Thai government's move aims to boost fundraising through tokenization and drive economic growth by embracing financial technology. By removing tax barriers, Thailand hopes to encourage more businesses and startups to raise funds by issuing investment tokens. The tax breaks could also stimulate trading activity around these tokens on cryptocurrency exchanges. The tax exemptions demonstrate Thailand's progressive stance in regulating digital assets. By prudently fostering innovation, the government seeks to develop Thailand into a welcoming hub for cryptocurrency ventures and enable new channels of economic activity through tokenization.

**Conclusion.** The regulation of virtual currencies and cryptocurrencies is a complex and topical problem faced by governments and regulators around the world. The rapid growth of this industry significantly outpaces the development of relevant legislation. The absence of clear universal norms creates uncertainty for participants in the crypto market and hinders innovative development. A key challenge remains the determination of the proper legal classification of different types of cryptocurrencies and tokens, as they have characteristics of different types of assets - means of payment, goods, and securities. The choice of regulatory frameworks will depend on how virtual currencies are qualified.

Despite the diverse approaches of governments, most experts agree that the crypto market needs clear and understandable regulation at the national and international levels. This is necessary to ensure transparency, stability, protection of investor rights, and combating cybercrime. On the international stage, there are already attempts to harmonize regulation, in particular by the EU, FATF, and other associations. However, universal standards have not yet been developed. Harmonized laws at the global level will help eliminate regulatory uncertainty and create favorable conditions for the legal development of blockchain projects. For countries with high rates of cryptocurrency adoption, the introduction of comprehensive legal and regulatory frameworks is critically important to support the industry and minimize risks. A balanced approach by governments opens up opportunities for innovation while providing adequate consumer protection.

All this testifies to the urgent need for thorough scientific research to develop optimal ways of legally regulating the crypto industry. Only through concerted efforts of scholars, legislators, and regulators can a favorable and secure environment be created for the development of this promising industry in the future.

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