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## CURRENT TRENDS IN LEGAL REGULATION OF CRYPTOCURRENCY PAYMENTS

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**Abstract.** The purpose of the article is to examine current trends in the legal regulation of payments involving cryptocurrency, with a focus on Ukrainian and international practices. The study begins with a historical and technological overview of cryptocurrency development, emphasizing Bitcoin's emergence and the underlying blockchain technology. Special attention is given to the provisions of the Law of Ukraine "On Virtual Assets", highlighting both its strengths and legal gaps, particularly regarding the definitions and regulation of virtual asset issuers. The author argues for the urgent need to improve Ukraine's legal infrastructure to ensure both investor protection and international integration. The work contributes to the broader understanding of how digital finance is reshaping modern legal systems, while also posing serious challenges for law enforcement and policymakers.

**Key words:** cryptocurrency, virtual assets, legal regulation, blockchain, compliance, money laundering.

**Introduction.** Today, there is a steady trend worldwide towards the development of the cryptocurrency<sup>1</sup> market, towards an increase in its capitalization, and towards the emergence of new payment instruments related to the acquisition and disposal of virtual assets. Therefore, a professional analysis of these new developments in the legal regulation of transactions using cryptocurrency is becoming an extremely relevant and promising area of research in the field of law.

Let us now get to the heart of the regulatory issue at hand.

**Main part.** It is widely recognized that the origin of the creation of cryptocurrency dates back to 2008, when a payment system file was first published in the form of a temporary network under the pseudonym Satoshi Nakamoto. Back in 2009, Satoshi Nakamoto presented the Bitcoin client program in the form of open-source code on the Internet. During the time Nakamoto was involved (2008–2010), approximately 1 million coins have been mined. Except for some test transactions, all coins remain unspent since mid January 2009, at the peak of bitcoin in December 2017, such "hidden treasure" was worth about 17 billion euros. However, only the owner of the private key will be able to prove he is the real Satoshi (The story, 2025).

From the technological viewpoint, Bitcoin units (coins) are computer files, such as, for example, a text file. In turn, the so-called "coins" in the Bitcoin (BTC) system are cryptographic (mathematical) hash codes, i.e., created using encryption technologies, each of which is unique in nature and cannot be used twice. By drawing an analogy between Bitcoin and precious metals, one can see the difference between the new means of payment and other financial instruments. For example, if the value of gold or silver is based on their physical properties, then the use of Bitcoin is based on its mathematical properties. Cryptocurrency is digital money, which is based on cryptography technology, i.e., data encryption. Such currency does not have a physical form, but exists only in electronic form, thus it is a computer code. Cryptocurrency is created through mining (like the old-fashioned mining, only in a digital "mine"). Mining is the solution to a certain crypto problem by completely searching for a

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<sup>1</sup> For the purposes of this article, the terms "virtual asset", "virtual currency" and "cryptocurrency" are considered synonymous. At the same time, at least under Ukrainian law, the normative definition of the concept of a virtual asset as an intangible good that is the object of civil rights, has a value and is expressed by a set of data in electronic form (Article 1 of the Law of February 17, 2022), allows this concept to include other intangible goods, which are distinct from cryptocurrency, as well.

given algorithm using special technical equipment to confirm transactions and ensure the security of the cryptocurrency network.

In order to understand the essence of the functioning of the cryptocurrency network, it is also necessary to understand the meaning of such a significant category as a transaction. Transaction is a message to the network about the transfer of a certain amount of cryptocurrency from one user to another. Transactions are seen by miners (computer equipment), which must perform calculations to complete the operation. After the calculation is completed, the transaction is entered into the so-called block (record in the system). There are many such blocks, however, and the most important thing is that each block is linked to the previous one.

It is worth mentioning that despite the fact that the law of Ukraine of February 17, 2022 “on virtual assets”, which should regulate the legal status of cryptocurrencies in Ukraine, has not yet entered into force (due to the binding of cryptocurrency market launch to the introduction (still at works) of the procedure for taxation of transactions with virtual assets), the crypto asset market has been growing steadily in Ukraine, which has become one of the world leaders in the use of crypto assets. Fast introduction of virtual assets into global finance, their various combinations with fiat (classical) money, raises many security and regulatory issues (Koshovyi, 2023).

Legal regulation of payments using cryptocurrency in Ukraine currently remains in its “infancy” status. The key law regulating the circulation of virtual assets is the Law of Ukraine “On Virtual Assets”, which was adopted on September 8, 2021, and entered into force simultaneously with the date of entry into force of the law on amendments to the Tax Code regarding the features of taxation of transactions with virtual assets. This important regulatory act legalized the circulation of virtual assets, allowed their exchange and declaration, and also created appropriate conditions for the registration of foreign cryptocurrency companies in Ukraine. It is important to note that taxes on cryptocurrency transactions are paid while taking into account the requirements of the Tax Code. In particular, profits from the sale of virtual assets are taxed at a general rate of 18% personal income tax and 1.5% military levy.

It is worth supporting the academic position that distinguishes the following main features of cryptocurrencies: 1) cryptocurrency is a certain digital code that is generated based on complex mathematical algorithms; 2) cryptocurrency can perform the options of fiat money, in particular, be in the form of a means of payment, an exchange equivalent, etc.; 3) cryptocurrency is characterized by the anonymity of participants in transactions and the use of specific encryption mechanisms; 4) accounting for transactions with cryptocurrencies is carried out using blockchain technology; 5) cryptocurrency system acts as a closed decentralized system, the main aspects of the functioning of which are determined by its participants. In turn, cryptocurrency exchange rate is not determined by the national bank, but is adjusted in the process of functioning, formed by the market. Also, emission of cryptocurrency assets is not under state control; 6) lack of its real security (the value of cryptocurrencies is the result of the ratio of demand and supply for them among users) (Kaznacheeva & Dorosh, 2020: 172).

Under Ukrainian law, the legal status of cryptocurrency is determined by property laws and not as a means of payment. It is clear that the use of cryptocurrency as a traditional object of civil rights is simpler, because the issues of legal regulation of objects of civil rights are already regulated by the Civil Code of Ukraine. Also, there is extensive judicial practice in understanding the specifics of the definition and use of objects of civil rights; at the same time, the concept of using cryptocurrency as a means of payment involves extensive legislative work, primarily understanding the mechanism of introducing cryptocurrency as a means of payment, the features of settlements using cryptocurrency, and the need to revise special legislation on payment systems.

Indeed, the legal regime of cryptocurrencies differs across jurisdictions and is not characterized by any unity or stability of approaches. For example, as of 2025, the United States does not have a

unified or comprehensive regulatory framework governing cryptocurrency. Instead, regulatory efforts rely on a combination of existing laws and oversight by various federal and state authorities.

In 2024, significant progress was made in America with the introduction of the Financial Innovation and Technology for the 21st Century Act (FIT21). Although this legislation was passed by the U.S. House of Representatives, it has not yet been enacted. FIT21 is designed to strengthen the role of the Commodity Futures Trading Commission (CFTC) as the principal federal regulator for digital assets in the U.S.

In the absence of a single legal framework, enforcement and oversight are currently carried out through pre-existing laws and the authority of federal agencies. At the federal level, several administrative bodies are involved in cryptocurrency regulation, each exercising jurisdiction based on the nature of the crypto asset or activity. Among those agencies are the Securities and Exchange Commission (SEC), the Commodity Futures Trading Commission (CFTC), the Internal Revenue Service (IRS), and the Financial Crimes Enforcement Network (FinCEN).

Unlike in Ukraine, in the U.S., virtual assets are viewed as a special type of digital asset. Digital assets are defined as any digital representation of value recorded on a cryptographically secure technology system. They are not fiat currency, since they are not issued in coin or banknote form and are not released digitally by the country's central bank. A digital asset with equivalent value in a national currency or that functions as an equivalent is termed a convertible virtual currency. According to the U.S. Internal Revenue Service position, virtual assets – and most commonly, cryptocurrencies – are examples of convertible virtual currencies that can be used to pay for goods and services, conduct peer-to-peer digital transactions, or be exchanged for national currencies or other digital assets (Digital assets, 2025).

Overall, there are quite a few civil and criminal cases in the field of cryptocurrency regulation, which are currently adjudicated by the American courts. It can be safely guessed that the number of these cases will further grow with the expansion of cryptocurrency assets and transactions.

Overall, the evolution of virtual assets from speculative investments into a new class of financial instruments has prompted governments around the world to develop innovative regulatory approaches.

In particular, the European Union, which has significant experience in this domain, especially relevant for Ukraine, is currently finalizing its new framework for virtual asset markets following the adoption of the Markets in Crypto-Assets Regulation (MiCA) (Markets, 2025).

Even a brief analysis of the provisions of the abovementioned Law of Ukraine on Virtual Assets demonstrates that it generally reflects the MiCA Regulation's approach to the legal status of crypto-asset service providers. Specifically, "providers of services related to the billing of virtual assets" are defined solely as commercial entities – namely, legal persons engaged in one or more types of activity on behalf of third parties, as specified in paragraph 8, part 1, article 1 of the Law.

However, as noted by O. Pochynok, the legal status of virtual asset issuers has not been adequately clarified. Ownership or proprietary rights to virtual assets may belong to both natural and legal persons unless there is a direct prohibition on acquiring ownership of such assets. The Law also fails to elaborate on the term "issuer of virtual assets" used in part 5, article 5 – namely, "a person assuming obligations under a secured virtual asset" – as this category may include both individuals and legal entities. Therefore, this scholar argues that it is necessary to clearly define the scope of virtual asset issuers, which also applies to issuers of financial virtual assets mentioned in part 6, article 4 of this Law (Pochynok, 2023: 222).

I would also like to add that, despite the presence of certain legal constructs in the Ukrainian Law on Virtual Assets, which partially align with MiCA's conceptual vision of building a legal framework for the virtual asset market, key elements were either overlooked or omitted during the law's drafting and adoption. In particular, the terminology used in the Ukrainian legislation still requires improve-

ment, especially in terms of detail and its consideration of specific types of virtual assets, where it falls short compared to MiCA (Volynets, 2025: 26-32).

Other regions of the world are likewise advancing efforts to establish effective regulatory platforms for virtual asset-related legal relations. Experts note that the United Arab Emirates is creating the world's first regulatory body focused exclusively on virtual assets. Switzerland, in turn, is integrating a legal framework for virtual asset regulation into its national legal system, giving market participants the desired legal certainty regarding the legislative and regulatory environment. Meanwhile, the Federal Financial Supervisory Authority of Germany (BaFin) regards virtual assets as innovative means of payment. These assets have various labels internationally and domestically, such as digital, virtual, alternative currencies, or cryptocurrencies.

Some researchers think that such a combination of cryptocurrency and the banking system will make them more similar to traditional payment instruments, and the idea of creating a crypto asset that can be used on a par with the hryvnia or dollar seems very promising. Despite significant progress in the development of digital finance, cryptocurrencies are still not legal tender in Ukraine. According to Article 192 of the Civil Code of Ukraine, only the hryvnia is the national currency, although the use of foreign currency is allowed as well. The Law "On Currency and Currency Valuables" also specifies that the national currency can be represented in the form of digital money issued by the National Bank of Ukraine, but this is not a cryptocurrency. Legal regulation of the cryptocurrency market in Ukraine needs significant improvement. The uncertain legal status of cryptocurrencies creates many risks for market participants. The lack of clear provisions forces people to act at their own risk, which in turn increases the threats to consumers. Legislative regulation is important to protect the interests of market participants and will contribute to a more effective integration of Ukraine into the European market, including its financial sector (Darchyk, 2025: 338).

Despite many obvious challenges, the Ukrainian cryptocurrency market remains highly active – many agencies have their own cryptocurrency exchanges, which was made possible by the absence of significant legislative prohibitions or restrictions. However, there is still a lot of uncertainty in this area of business activity and regulation, as there is no official legislative roadmap and correct definitions. Hence, the level of cryptocurrency market volatility remains high in this country.

Integration of economic systems of many countries, digitalization of the economy, emergence of new financial instruments, development of high technologies – all such factors may have a "flip side" and can be used not only for legal purposes. In today's environment, cryptocurrency transactions are often used for money laundering, as such transactions make it difficult to identify persons who commit them. Bitcoin, for example, can be used to implement a variety of laundering schemes that virtually block the possibility of identifying the perpetrator.

Among some major advantages of cryptocurrencies, which also make them attractive for money launderers, are:

- 1) they are decentralized and not controlled by any central authority, which means they are less vulnerable to censorship, corruption, or manipulation;
- 2) they offer a high level of security and privacy, as transactions are encrypted and verified by a network of nodes, and users can remain anonymous or pseudonymous;
- 3) they are transparent and immutable, since all transactions are recorded on a public ledger that cannot be altered or erased. This ensures trust and accountability among users;
- 4) they are diverse and innovative, as there are thousands of different cryptocurrencies with different features, functions, and areas of usage. Users can freely choose the ones that suit their specific needs and preferences (Koirala, 2021).

A virtual currency transfer usually includes a message about identification data (sender, recipient, digital document) and the amount of currency transferred. The key obstacle for law enforcement is that such transactions can be carried out using anonymous addresses/identities and they are often

encrypted. One person may use several different identities/addresses on a single platform. Since virtual currency transactions are conducted online, they leave little or no documented evidence at all (Richardson & de Lucas Martin, 2021).

This poses both advantages and threats for the financial system, which heavily relies on the cryptocurrency ecosystem.

To prove my thesis, I will turn to one of the recent large-scale fraud schemes, related to cryptocurrency, which has been successfully investigated and prosecuted in the United States.

On November 21, 2023, the U.S. Department of Justice announced that Binance Holdings Limited, the world's largest cryptocurrency exchange at the time, had pleaded guilty to multiple federal charges. Those included conspiracy to violate the Bank Secrecy Act (BSA), operating without proper registration as a money transmitting business, and breaches of the International Emergency Economic Powers Act (IEEPA). Federal prosecutors stated that Binance intentionally prioritized growth, market dominance, and profits over compliance with U.S. regulations, thus allowing the company to benefit from the U.S. market without implementing necessary legal controls.

As part of the plea deal, Binance agreed to pay \$4.3 billion in penalties and committed to significantly improving its compliance measures. Those improvements will be overseen by an independent monitor. This marks the largest corporate guilty plea ever obtained by the Department of Justice and includes an admission of guilt by Binance's CEO. The agreement also imposes enhanced compliance obligations on the company moving forward (United States v. Binance Holdings Limited, 2023).

Federal regulators acknowledged Binance's "substantial cooperation" during the investigation. This included conducting an independent internal review, responding quickly to government inquiries, sharing large volumes of data, and providing incriminating internal communications. Additionally, Binance made multiple presentations to authorities and collaborated extensively with various agencies.

The DOJ's plea agreement also highlights Binance's significant investments in strengthening its anti-money laundering (AML) programs. This includes hiring experienced compliance professionals, expanding the compliance team, and implementing comprehensive risk management practices. Since November 2022, Binance has also adopted more rigorous enterprise-wide monitoring systems and integrated Financial Action Task Force (FATF) standards into its operations. These reforms have been supported by enhanced employee training, demonstrating the company's efforts to meet regulatory expectations (Kamensky et al., 2025).

Following the discovery of violations by law enforcement, Binance began a broad internal restructuring. It upgraded its systems, reassessed its staff, and launched efforts to become a model for compliance in the crypto industry. The company has enhanced its internal AML detection and analytics capabilities and now plays a significant role in assisting global law enforcement in combating cyber-crime, financial crime, and terrorism.

Today, numerous analytical reports suggest that virtual assets and digital wallets are actively used in criminal "chains" of transactions, first to defraud investors or ordinary people, and then to hide the stolen funds from law enforcement agencies.

In my opinion, and based on the points I have outlined above, the *Binance* case exemplifies the crucial role of strong corporate governance, especially in an increasingly globalized economy and in sectors like FinTech, where innovation often outpaces regulation. The bottom line here is that any government as a regulator will face a double challenge: on the one hand, there is both common sense and incentive to promote cryptocurrencies as a new technological method of payment with its numerous and obvious advantages; on the other hand, unfortunately, cryptocurrency today is often used as a money laundering tool by bad actors across many jurisdictions.

**Conclusions.** Based on my research and analyses within this paper, a set of the author's conclusions can be formulated.

First, cryptocurrency is currently transforming the global payment ecosystem, serving not only as a speculative investment tool but also as an emerging class of digital financial instruments. However, its legal regulation remains fragmented and inconsistent across various jurisdictions.

Second, Ukraine's legal framework, primarily embodied in the Law "On Virtual Assets", represents a very important step toward formalizing the crypto market. Yet, key definitions, and especially those regarding asset issuers, remain vague and require legislative refinement. Alignment with the EU's MiCA Regulation can serve as a valuable reference for further development.

Third, progressive international experience (U.S., EU, Germany, Switzerland, UAE, and other countries) reveals a variety of regulatory models, ranging from active government oversight to integration into existing financial systems. The *Binance* criminal case in the U.S. demonstrates both risks of non-compliance and the importance of comprehensive regulatory enforcement.

Finally, despite formal progress, cryptocurrency in Ukraine is not recognized as a legal token or transaction instrument and still lacks legal certainty, which poses risks to market participants. The absence of enforceable regulations encourages operations in a legal gray zone, thus limiting consumer protection and economic security. There is a pressing need for Ukraine to improve its legislative and regulatory infrastructure, including clearer definitions of legal subjects, harmonization with international standards, enforcement of anti-money laundering rules, and integration of cryptocurrency regulation into broader financial and civil law systems.

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