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## Legal Protection for Crypto Asset Investors in Indonesia Within an Incomprehensive Regulatory Framework and its Implications for Legal Certainty

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**Abstract:** The development of blockchain technology has given rise to crypto assets as a new investment instrument that has attracted the attention of the Indonesian public in recent years. However, the rapid growth of crypto investments has not been accompanied by a comprehensive regulatory framework, creating vulnerabilities to various legal, economic, and technical risks that could harm investors. This study aims to analyze the form of legal protection for crypto asset investors in Indonesia within the context of a still-limited regulatory framework, as well as to examine its implications for legal certainty in the digital asset sector. The research method used is a normative juridical approach, with secondary data sources in the form of laws and regulations, legal literature, and international comparisons. The analysis shows that legal protection for investors remains administrative and partial, as reflected in regulations such as Law No. 4 of 2023 on the Development and Strengthening of the Financial Sector (PPSK Law), Bappebti Regulation No. 8 of 2021, and Government Regulation No. 5 of 2021. The absence of specific dispute resolution mechanisms, fund return guarantees, and protection against market manipulation exacerbates the legal uncertainty faced by investors. Comparative studies with other countries such as Singapore, Japan, and the European Union highlight the importance of establishing an integrated regulatory framework that emphasizes consumer protection and strong oversight. This study recommends the drafting of a specific law on digital assets, expansion of the Financial Services Authority (OJK)'s authority, as well as the creation of dispute resolution mechanisms and investment insurance schemes to enhance legal certainty and public trust in the crypto asset sector.

**Keywords:** legal protection, crypto assets, legal certainty, investor, digital regulation, Financial Services Authority (OJK), Commodity Futures Trading Regulatory Agency (Bappebti)

**Abstrak:** Perkembangan teknologi blockchain telah melahirkan aset kripto sebagai instrumen investasi baru yang menarik perhatian masyarakat Indonesia dalam beberapa tahun terakhir. Namun, pertumbuhan pesat investasi kripto belum diiringi dengan kerangka regulasi yang komprehensif, sehingga menimbulkan kerentanan terhadap berbagai risiko hukum, ekonomi,

dan teknis yang dapat merugikan investor. Penelitian ini bertujuan untuk menganalisis bentuk perlindungan hukum bagi investor aset kripto di Indonesia dalam konteks kerangka regulasi yang masih terbatas, serta untuk mengkaji implikasinya terhadap kepastian hukum di sektor aset digital. Metode penelitian yang digunakan adalah pendekatan yuridis normatif, dengan sumber data sekunder berupa undang-undang dan peraturan, literatur hukum, serta perbandingan internasional. Analisis menunjukkan bahwa perlindungan hukum bagi investor masih bersifat administratif dan parsial, sebagaimana tercermin dalam peraturan seperti Undang-Undang Nomor 4 Tahun 2023 tentang Pengembangan dan Penguatan Sektor Keuangan (UU PPSK), Peraturan Bappebti Nomor 8 Tahun 2021, dan Peraturan Pemerintah Nomor 5 Tahun 2021. Ketidakhadiran mekanisme penyelesaian sengketa yang spesifik, jaminan pengembalian dana, dan perlindungan terhadap manipulasi pasar memperburuk ketidakpastian hukum yang dihadapi investor. Studi perbandingan dengan negara lain seperti Singapura, Jepang, dan Uni Eropa menyoroti pentingnya menetapkan kerangka regulasi terintegrasi yang menekankan perlindungan konsumen dan pengawasan yang kuat. Studi ini merekomendasikan penyusunan undang-undang khusus tentang aset digital, perluasan wewenang Otoritas Jasa Keuangan (OJK), serta pembentukan mekanisme penyelesaian sengketa dan skema asuransi investasi untuk meningkatkan kepastian hukum dan kepercayaan publik terhadap sektor aset kripto.

**Kata Kunci:** perlindungan hukum, aset kripto, kepastian hukum, investor, regulasi digital, Otoritas Jasa Keuangan (OJK), Badan Pengawas Perdagangan Berjangka Komoditi (Bappebti)

## INTRODUCTION

The development of blockchain technology has brought about a significant transformation in the global financial system, including in Indonesia (Suryawijaya, 2023). This technology has given rise to crypto assets widely recognized as a new form of digital investment based on a decentralised system (Herman, 2024). Crypto assets attract public attention because they promise high returns in a relatively short period and are easily accessed via digital devices (Ahmad Junaidi, 2024). The uniqueness of blockchain—its transparency and lack of need for a central authority—makes crypto a viable alternative to traditional financial systems (Arkas Viddy, 2025). These changes indicate that Indonesian society is entering a new era of investing and managing digital wealth (Susanto, 2025). However, legal adaptation has yet to fully keep pace with the rapid technological development.

Public interest in crypto assets in Indonesia has increased significantly over the past few years. According to official data from Bappebti, the number of crypto asset investors now exceeds that of traditional capital market investors (Hasani, 2022). This growth reflects a shift in financial behavior toward digital instruments seen as more convenient and potentially more lucrative in a shorter time (Pramitasari, 2025). The popularity of crypto is also driven by the presence of easily accessible trading platforms that are often aggressive in their promotions (Nugrahaningsih, 2024). Unfortunately, many of these investors have limited knowledge of the risks and complexities of digital assets. This lack of preparedness exposes them to fraud, market manipulation, and losses due to extreme price fluctuations (Yazidillah, 2023).

The inadequacy of legal frameworks is one of the primary root causes of investor protection issues in crypto (Jaya, 2022). Although several regulations have been issued, such as Bappebti Regulation No. 8 of 2021, they remain technical and administrative in nature. There is as yet no comprehensive regulation guaranteeing legal certainty and protection for investor rights in the event of disputes or contract violations. Consumer protection systems in crypto investments have not been specifically regulated, resulting in legal gaps with broad impacts. These gaps not only create uncertainty but also erode public trust in the national legal

system (Khunainah, 2024). Amid digitalisation dynamics, regulation should serve as a responsive and adaptive tool for public protection.

Law No. 4 of 2023 on the Development and Strengthening of the Financial Sector (PPSK Law) has recognised crypto assets as part of the digital financial sector (Anam, 2024). Relevant provisions place crypto assets under the authority of the Financial Services Authority (OJK), which will gradually supervise the industry (Siboro, 2024). This recognition is an important first step in building a strong legal foundation. However, implementation of the PPSK Law is still in transition, as crypto was previously supervised by Bappebti. This situation creates institutional ambiguity, weakening coordination and oversight effectiveness. There is a need to align technical regulations between the OJK and Bappebti to avoid overlapping authority.

Crypto assets differ fundamentally from Central Bank Digital Currency (CBDC), which is issued by a central bank (Muhammad, 2023). Crypto assets originate from private initiatives and are not backed by state authority, whereas CBDC—such as a Digital Rupiah—is designed and fully controlled by Bank Indonesia (Baiquni, 2023). This difference directly impacts their legal treatment: CBDC is subject to the national banking and monetary system, while crypto assets are regulated more like commodities under trade authorities (Nurullia, 2021). Without legal classification clarity, providing accurate legal protection to investors becomes difficult. Regulations must clearly delineate the position and function of each digital instrument.

Key characteristics of crypto assets include decentralisation, high volatility, and blockchain technology. Decentralisation grants users more freedom, but also raises major challenges for oversight and law enforcement (Sirait, 2024). Extreme price volatility makes crypto susceptible to manipulation and unhealthy speculation (Sihombing, 2021). Although blockchain provides transparency, it does not guarantee legal protection in cases of hacking or loss of digital assets. The system lacks legal mechanisms for recovery, as exist in banking systems. This complexity demonstrates that conventional legal approaches are insufficient for protecting crypto assets.

Crypto assets are legally recognised in Indonesia as digital commodities, not as legal tender. Law No. 7 of 2011 on Currency prohibits the use of any currency other than the Rupiah within Indonesian territory. Based on this provision, crypto assets may only be used as investment instruments or traded commodities (Rachmawati, 2022). Bappebti regulates crypto trading through a physical market under Regulation No. 8 of 2021, with strict requirements for trading platforms. These regulations include provisions on tradable crypto types, listing mechanisms, and other technical requirements. However, they have not addressed investor rights protection for consumers within the digital trading system (Atmojo, 2023).

The growth of Indonesia's crypto ecosystem is reflected in the increasing number of trading platforms officially registered with Bappebti. These platforms act as intermediaries between investors and the market and play a vital role in transaction flow. However, although registered, not all platforms have optimal security and transparency systems. Many incidents have occurred where investors lost their digital assets due to data breaches, system failures, or suspected manipulation. This disorder highlights weak oversight mechanisms and performance evaluation of platform operators. A stronger legal approach is needed to impose sanctions and ensure ongoing supervision of business actors in this sector.

The risks of crypto investment arise not only from market volatility but also from crimes like fraud, money laundering, and terrorism financing. The anonymity of many crypto assets provides opportunities for misuse in illegal activities. This situation creates a dilemma for regulators: to promote digital financial innovation while safeguarding national financial system integrity (Pawestri, 2025). An adaptive legal approach is needed, emphasising prudence, consumer protection, and financial crime prevention. The state's firmness is not meant to hinder technological progress, but to ensure that such progress does not produce adverse social or economic consequences.

The high risks and legal uncertainty accompanying crypto asset investment demand a more active state role in providing legal protection. Legal protection must go beyond mere legal recognition and technical regulation to include substantive protection of investor rights. The legal system must be able to provide certainty, justice, and effective dispute resolution mechanisms. This effort is important so that digital economic growth benefits not only a select few, but also protects the public interest widely. The state has a constitutional responsibility to protect every citizen from potential losses arising from weak legal policies.

## **METHOD**

The research method used in the writing of this journal is the normative juridical method with a statute approach and a conceptual approach. The statute approach is employed to examine the prevailing legal norms in Indonesia related to the protection of crypto asset investors, including Law Number 4 of 2023 on the Development and Strengthening of the Financial Sector (PPSK Law), Bappebti Regulation Number 8 of 2021 on Guidelines for Organizing Physical Crypto Asset Trading Markets, as well as other regulations such as Law Number 7 of 2011 on Currency and Government Regulation Number 5 of 2021 on Risk-Based Licensing Implementation. Through this approach, an analysis is conducted on the normative structure governing the existence and legal protection of investors in the digital asset sector. In addition, the conceptual approach is used to examine legal ideas or concepts related to consumer protection, legal certainty, and state responsibility in the context of the development of blockchain-based financial technology. This approach enables the exploration of legal doctrines, theories of legal protection, and general principles in economic and capital market law that are relevant to the dynamics of crypto assets. The data analyzed in this research is sourced from primary and secondary legal materials, such as legislation, scientific literature, legal journals, and policy documents from both domestic and international regulatory institutions. By combining these two approaches, this study seeks to provide a comprehensive overview of the normative issues faced by crypto asset investors in Indonesia and to offer legal-based solutions aimed at strengthening legal certainty and consumer protection.

## **RESULT AND DISCUSSION**

### **Legal Protection for Crypto Asset Investors within the Current Regulatory Framework in Indonesia**

Regulation regarding the legal protection of crypto asset investors in Indonesia has evolved along with the growth of technology and the digital financial sector. Law Number 4 of 2023 on the Development and Strengthening of the Financial Sector (PPSK Law) has become a crucial milestone by incorporating digital financial assets, including crypto assets, under the supervision of the Financial Services Authority (OJK), as regulated in Article 6(k) and Article 9(1). The shift in oversight from the Commodity Futures Trading Regulatory Agency (Bappebti) to the OJK will be executed gradually, with a two-year transition period as stipulated in Article 330(2) of the PPSK Law. During this transition, Bappebti still holds a strategic role in supervising physical crypto asset trading, based on Bappebti Regulation Number 8 of 2021. These provisions reflect the state's efforts to create a regulated crypto asset trading ecosystem, though comprehensive investor protection is not yet fully guaranteed.

Legal protection available under current regulations includes the requirement for crypto trading platform operators to obtain approval and licensing from Bappebti. Article 2(1) of Bappebti Regulation No. 8 of 2021 stipulates that only physical crypto traders who have received approval as prospective traders and have fulfilled technical requirements may engage in trading activities. This registration process is intended to ensure that platforms are operationally capable and can fulfill consumer protection obligations. Additionally, Know Your Customer (KYC) and Anti-Money Laundering (AML) principles are mandatory to



prevent platform misuse by irresponsible parties. Periodic reporting to Bappebti is also required as a transparency mechanism aimed at ensuring business actors' accountability.

Crypto assets tradable in Indonesia are also strictly restricted. Articles 3(1) and (2) of Bappebti Regulation No. 11 of 2022 concerning Criteria for Tradable Crypto Assets in Physical Crypto Asset Markets state that only crypto assets meeting Bappebti's assessment criteria may be legally traded. These assessments cover aspects such as security, liquidity, market capitalization, and contribution to the development of Indonesia's information technology ecosystem. The establishment of this list provides minimal assurance regarding the stability and legitimacy of traded assets, although it does not protect against price volatility. This effort shows that regulation is reactive to market dynamics but remains limited in anticipating investor loss risks.

Although there are administrative provisions for trading platforms and permitted crypto types, legal protection for investors—especially retail investors—from market manipulation practices is not yet technically regulated. Regulations do not yet explicitly prohibit insider trading, pump-and-dump schemes, or other price-manipulating methods common in the global crypto market. Investors may suffer significant losses without mechanisms for compensation or clear criminal enforcement in the crypto context. This situation demonstrates a regulatory gap between protecting market actors and protecting consumers, who ought to receive equal protection.

Current regulations also do not mandate that platform operators hold investment insurance or compensation funds. In traditional finance, such obligations are in place to protect customers in case of defaults or institutional bankruptcies. However, in the crypto ecosystem, there is no regulation requiring exchanges to provide bailout or reserve funds for users. This can lead to permanent losses in the event of system failure, cyber-attacks, or mass withdrawals (bank runs). Such provisions should be a primary concern for the OJK once regulators fully take over oversight of this sector.

No positive legal provision explicitly governs standard system security or personal data protection requirements in the crypto asset sector. Although Law Number 27 of 2022 on Personal Data Protection (PDP Law) can serve as a general foundation, there is no technical harmonization with Bappebti regulations regarding how exchanges must protect consumer personal data. The absence of minimum-security standards raises the risk of identity theft and financial data breaches. Regulations on cybersecurity and periodic technology audits are still urgently needed so that operating platforms not only fulfill administrative requirements—but are genuinely safe for public use.

Another regulatory gap is the lack of a dispute resolution mechanism designed specifically for crypto transactions. In practice, disputes between users and platforms often fail to find a fair or efficient forum due to the absence of a specialized mediation or arbitration body, as exists in capital markets or banking. Articles 21 and 22 of Law Number 30 of 1999 on Arbitration and Alternative Dispute Resolution technically allow for arbitration, but there is no accredited arbitral institution focused on the crypto sector. Consequently, dispute resolution tends to favor service providers and disadvantages consumers. This highlights the need for a dispute resolution institution with technical capacity and understanding of the crypto ecosystem.

Regarding licensing and governance, Government Regulation Number 5 of 2021 on Risk-Based Licensing Implementation provides one legal basis used to assess the eligibility of crypto trading platforms as business actors. This regulation classifies risk levels for various business sectors, including those based on technology and finance. However, because this regulation is general, there is no specific risk classification for crypto asset trading, which involves high volatility and technical complexity. This mismatch can cause errors in licensing

or ongoing supervision processes and impede the government's ability to set proportionate risk mitigation measures.

Regulations also do not clearly address the procedures for handling crypto platform bankruptcies, which has become critical following global cases like FTX and Celsius. The absence of fund return guarantees or priority creditor claims for user funds is a major weakness in legal protection. Law Number 37 of 2004 on Bankruptcy and Suspension of Debt Payments does not accommodate digital assets as bankruptcy subjects that require special handling. This situation places investors in a highly vulnerable position should a platform undergo liquidation, lacking a strong legal basis to reclaim their funds.

The complexity of regulating crypto assets reflects an urgent need for regulatory alignment that is not merely administrative but also substantive in protecting investor rights. Current laws, Bappebti regulations, and government regulations primarily focus on trading mechanisms and licensing—not on protecting investors as consumers in the digital financial sector. Derivative regulations under the PPSK Law should account for technological developments and global practices to meet increasingly urgent legal protection needs. Without an adequate legal basis, retail investors will remain in a vulnerable position while the crypto asset ecosystem continues to grow aggressively in Indonesia.

### **Implications of Regulatory Inconsistency and Incompleteness in Crypto Asset Regulation on Legal Certainty for Investors**

Legal uncertainty faced by crypto asset investors in Indonesia has become a serious issue that can weaken public trust in the digital financial ecosystem. The absence of adequate technical regulation, especially regarding legal protection in cases of force majeure such as system failure or platform bankruptcy, raises concerns about the permanent loss of funds. The existing regulations have not yet been able to answer fundamental questions about how the state guarantees the security of investors' funds and legal interests. Law Number 4 of 2023 concerning the Development and Strengthening of the Financial Sector (PPSK Law) does state that the Financial Services Authority (OJK) will become the main supervisor of the digital financial sector, including digital financial assets (Article 9 letter d). However, until now there have been no technical implementation guidelines from OJK regarding the protection of crypto asset investors. This uncertainty creates a grey area that allows the emergence of legal loopholes that harm the very party that should be protected—investors.

Investors are operating in an unstable legal environment, which increases investment risk and hinders the healthy and sustainable growth of the crypto asset market. While regulators have not yet formulated a specific dispute resolution mechanism for this sector, investors do not have a formal pathway to claim compensation when they suffer losses due to service provider negligence. The absence of an arbitration body or a dedicated digital asset dispute resolution forum places investors in a weak position. In countries like Japan, for instance, the Financial Services Agency (FSA) requires exchanges to maintain reserve funds to handle consumer disputes. Meanwhile, Indonesia has no such regulation in the form of OJK regulations or Government Regulations. This results in potential legal conflicts between investors and platform providers being resolved outside of formal and standardized legal systems.

The bankruptcy case of international exchange FTX raises the question of whether Indonesia is ready to face a similar event. FTX, based in the Bahamas with thousands of global investors, experienced systemic failure due to weak internal and external oversight. A similar scenario could happen in Indonesia if the national crypto ecosystem is allowed to operate with weak supervision and lax regulation. Until now, Indonesia has not had explicit provisions regarding fund guarantee schemes for investors in the event of exchange bankruptcy. Regulations such as Government Regulation No. 5 of 2021 concerning Risk-Based Licensing

do not yet contain sector-specific norms related to detailed risk management in the crypto sector. Indonesian investors therefore face a similar situation, where the collapse of a major entity could have wide systemic impacts without institutional protection.

Several countries have become references in building comprehensive crypto asset regulatory frameworks, which Indonesia could reflect upon. Singapore, through the Monetary Authority of Singapore (MAS), has issued the Payment Services Act requiring exchanges to obtain licenses and comply with strict AML/CFT standards. Japan's FSA not only requires registration but also mandates the segregation of customer funds from the exchange's operational funds, as well as the obligation to store assets in cold wallets for security. The European Union, through the Markets in Crypto Assets (MiCA) regulatory framework, mandates that crypto service providers obtain licenses issued by national financial authorities, and investors are protected by digital consumer protection protocols. This approach demonstrates that integrating legal protection, transparency, and system security are essential components in building a trusted crypto ecosystem.

In Indonesia, learning from other countries has not yet been fully translated into operational and effective regulation. OJK, with its new authority under the PPSK Law, indeed has the opportunity to codify and harmonize rules, but there are no concrete signs that an integrated regulatory framework is being drafted. Bappebti, the previous regulator, only played a role at the administrative level and asset registration, without deeper intervention regarding investor protection. This fragmentation has left Indonesia without a single legal umbrella that covers all aspects of digital asset trading—from licensing to dispute resolution. Yet strong legal protection is one of the indicators of a healthy investment climate. The lack of integration between supervisory institutions results in overlapping roles and slow responses to crypto market dynamics.

A major challenge faced by regulators in building an effective oversight system is the limited human resources who deeply understand blockchain technology and crypto transactions. Many law enforcement officers, regulators, and legislators still lack sufficient technical capacity to assess risks and formulate policies in this sector. This limitation creates a regulatory knowledge vacuum that directly affects the slow legal adaptation to new technologies. Yet, crypto is a fast-moving sector that requires agile and adaptive legal responses. The lack of human resources also causes supervision to be reactive rather than proactive, with violations often only being identified after losses have already occurred. This contradicts the principles of prudence and consumer protection that should be the foundation of an economic legal system.

Oversight issues are also closely related to the readiness of government digital infrastructure in detecting and responding to suspicious transactions. Not all exchange activities can be monitored in real time, especially given the limited interoperability between systems used by Bappebti, OJK, and other institutions such as PPATK and Bank Indonesia. This system misalignment results in potential violations going undetected or being acted upon too late. In such conditions, dishonest market players may exploit these loopholes to carry out manipulative actions without sufficient oversight. The need for an integrated technology-based supervisory system is urgent if Indonesia wants to provide legal protection equivalent to more advanced jurisdictions. In the future, Artificial Intelligence-based automated surveillance systems can be a strategic solution to match the speed of crypto transactions.

The implementation of OJK's expanded authority following the PPSK Law opens opportunities to strengthen digital asset sector regulation, but this must be accompanied by a clear roadmap. OJK needs to immediately formulate derivative regulations detailing exchange governance, KYC/AML procedures, system security standards, and investor legal protection mechanisms. Article 9 paragraph (1) letter d of the PPSK Law provides the legal basis for OJK to regulate digital financial assets comprehensively, but without derivative regulations, the

legal norms remain declarative and not operational. This opportunity must be strategically utilized so as not to create a prolonged legal vacuum. The rapidly developing crypto sector cannot afford to wait too long for the presence of legal frameworks, as investors will seek jurisdictions with more legal certainty and stability.

The implications of legal uncertainty in the crypto sector not only impact investor protection but also affect Indonesia's image on the international stage. Institutional investors tend to avoid markets perceived as legally uncertain or vulnerable to regulatory risks. This can hinder the inflow of foreign investment and drive crypto industry players to migrate to countries with more mature legal systems. In the long term, Indonesia may lose its potential as a center of digital financial innovation if it does not immediately ensure legal certainty through comprehensive regulatory reform. Legal certainty is a crucial pillar in promoting inclusive, transparent, and responsible digital economic growth.

## CONCLUSION

The regulation of crypto assets in Indonesia is currently still in a transitional phase and has not yet been able to provide comprehensive legal protection for investors. Existing policies place more emphasis on administrative aspects, such as asset registration and platform licensing through Bappebti, but have yet to address the substance of legal protection in the event of losses or disputes. Provisions regarding the liability of business actors and the rights of investors in facing investment risks have not been explicitly regulated in the prevailing laws and regulations. This lack of clarity increases legal risk and creates uncertainty that directly affects investment interest and the growth of the crypto industry nationally. Although Law Number 4 of 2023 concerning the Development and Strengthening of the Financial Sector (UU PPSK) has transferred supervisory authority over digital assets to the Financial Services Authority (OJK), no concrete implementing regulation has yet been issued to ensure comprehensive protection, including in terms of exchange supervision, customer fund protection, and digital dispute resolution mechanisms. This legal uncertainty is a serious obstacle to building a healthy, transparent, and credible crypto asset market in the eyes of the public and global investors.

To address these various shortcomings, strategic steps are needed through the formation of an integrated regulation on crypto assets that prioritizes consumer protection and institutional strengthening. New regulations must be able to address the need for legal clarity, technical standards for exchange operations, as well as the legal responsibilities of digital asset business actors for investor losses. In addition, revisions to existing regulations or the drafting of a specific law on digital assets must include provisions on investor legal protection, information transparency, and the obligation of platform providers to offer compensation schemes. Coordination between institutions, particularly between OJK, Bappebti, and Bank Indonesia, must also be strengthened so that oversight can be integrated and responsive. The increase in OJK's authority following the UU PPSK must be used to promote a technology-based supervision system and the establishment of a digital dispute resolution mechanism that is fast, affordable, and publicly accessible. In addition, it is also important to design an insurance scheme for crypto investment protection so that the public has clear legal guarantees in the event of system failure or the bankruptcy of service providers.

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