

Digital Economy and Taxation of Crypto Assets: A Model Proposal for Turkey

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Abstract

This study examines the taxation problems of crypto assets in Turkey, which have increased in importance with the development of the digital economy and aims to reveal the gaps in the legal definition and integration of these assets into the tax system. The main objective of the study is to identify the shortcomings and implementation problems in the current legislation and to propose an effective and applicable crypto asset taxation model specific to Turkey in the light of international examples. The qualitative method was adopted in the study; national legislation, regulatory body reports, academic studies and policies of international organizations (OECD, IMF, etc.) were examined using document review and content analysis techniques. The findings show that although Turkey ranks high in the world rankings in the use of crypto assets, legal and tax regulations in this area are inadequate. As a result, the study recommends the legal definition of crypto assets as “digital assets”, the creation of a new income category under the title of “digital asset income”, exemptions for individual investors and the development of platform-based audit mechanisms.

Keywords: crypto assets, digital economy, taxation, Turkish tax policy

JEL: H21, H26, K34, O33

Introduction

Crypto assets, which have come to the agenda with the development of the digital economy, significantly affect financial systems, legal norms and tax policies both on a global scale and in Turkey. These assets, which operate on the basis of blockchain technology, are rapidly becoming widespread as payment and investment instruments. Due to their anonymity, they have brought along important problems such as informality, tax evasion and control in capital movements (Zengin and Kocaoğlu, 2022).

The lack of a clear legal and regulatory infrastructure in Turkey makes it difficult to determine the legal and tax nature of crypto assets, which creates serious gaps in the tax system (Sadat, 2022). Internationally, many organizations, especially the OECD, point to the lack of common terminology and practice in the taxation of these assets.

The experience of the US reveals that whether crypto assets are treated as capital gains or income in taxation has different consequences (Durdu & Üstün, 2023). Similarly, the practices of Switzerland, Slovakia and Russia show that there are significant

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differences between taxation models (Oruclar & Şahin, 2022); (Putera, 2022); (Titorenko, 2023). The Turkish judiciary's approach to taxing the digital economy may have consequences contrary to international tax law (Özgenç, 2024). Accordingly, the aim of this study is to reveal the existing legal gaps and implementation problems regarding the taxation of crypto assets in Turkey and to develop solutions in the light of international examples.

The qualitative method was adopted in the study and document review and document scanning techniques were used. Turkey's current tax legislation, the special tax rulings issued by the Revenue Administration, Fiscal Administration reports and academic publications were systematically analyzed; in addition, OECD reports, EU regulations and practices of various countries were comparatively evaluated. By classifying the data obtained through thematic content analysis, the current state of cryptoasset taxation in Turkey is analyzed, tax risks are identified and recommendations are developed for an effective taxation model. Existing practices such as digital service tax are also evaluated, and the strengths and weaknesses in Turkey's integration into the digital economy are revealed.

1. Crypto Assets and their Tax Nature

The digital economy refers to a contemporary economic structure in which economic activities are carried out through digital technologies and in which production, consumption and value-adding processes are radically transformed. This structure, which is shaped by the addition of digital information and data flows to traditional factors of production, is based on the intensive use of emerging technologies, especially artificial

intelligence, blockchain, big data and automation (Savastano et al., 2024). The digital economy is transforming business models in many areas ranging from the production of goods and services to financial markets, public administration and global trade; while increasing productivity, it is also reopening the fundamental elements of the fiscal order, particularly taxation, to debate.

With the placement of information technologies at the center of economic activities, transactions carried out through digital platforms exceed classical definitions of economic value; digital assets and value elements that have no physical existence have emerged (Oliynyk & Kucheriavyi, 2023). This transformation is not only technology-oriented but also brings about fundamental changes in tax law and fiscal policies, expanding the scope of taxable value elements. Classical tax institutions such as income, corporate and value-added tax have become insufficient in the face of new economic elements created by digitalization.

In this context, crypto assets and tokens stand out as tangible and rapidly growing components of the digital economy. These assets, which are produced in a virtual environment, carry economic and cultural value and function as investment instruments and payment systems (Ngwakwe, 2022). The infrastructure offered by the measurement of net gains has become almost impossible. Lockchain technology enables the development of decentralized and transparent economic models; this situation brings about the search for new paradigms in terms of both economic theory and tax systems. In particular, the increase in cross-border transactions in the platform economy has deepened the problems of tax sovereignty; the fact that the movement of goods, services and capital has

become independent of physical borders has necessitated the redefinition of classical tax concepts (OECD, 2023).

The tax treatment of crypto assets necessitates the evaluation of their economic characteristics under different tax regimes. In terms of income tax, capital gains come to the fore, while their use in the purchase and sale of goods or services is decisive in the value added tax dimension (Durdu & Üstün, 2023). However, since the current tax legislation is based on physical assets and official currency, serious uncertainties arise as to which tax category crypto assets with digital representation will be included. Studies conducted by international organizations such as the OECD and the EU point to the need for a clear definition and classification of crypto assets. As a matter of fact, some countries have started to apply different taxation methods by considering crypto assets as securities, some as commodities or foreign exchange (Oruçlar & Şahin, 2022).

The place of crypto-assets in tax law brings along important discussions in terms of fiscal theory. Classical income, wealth and expenditure tax types may be insufficient in the face of functionally diverse cryptoassets, creating gray areas that increase the risk of tax evasion and informality. With the development of the token economy and the proliferation of decentralized finance (DeFi) systems, the view that cryptoassets should be subject to an independent tax regime is gaining strength in the fiscal literature. The digital economy and crypto assets represent a structural transformation that necessitates the redesign of fiscal policies and the revision of tax systems according to the needs of the age.

2. International Practices

International practices regarding the taxation of crypto assets exhibit significant differences in line with the legal systems and fiscal policies of countries. These differences are shaped according to the legislation and administrative approaches of each country due to the uncertainties arising from the legal characterization of crypto assets. In the United States, crypto assets are treated as “property” by the Internal Revenue Service (IRS) and subject to capital gains tax. The IRS considers the value increases realized during the trading and exchange of crypto assets as taxable gains, while income from mining activities is subject to direct income tax. While this approach takes into account the versatility of the economic functions of cryptoassets, it increases compliance costs by increasing taxpayers' record-keeping obligations (Victor, 2021). In the European Union, Bitcoin transactions were exempted from Value Added Tax (VAT) in the 2015 ruling of the European Court of Justice and this practice became valid across the Union. Germany, on the other hand, recognizes crypto assets as investment instruments in its tax regime and excludes gains arising from the disposal of crypto assets held for more than one year. However, gains from short-term transactions are directly subject to income tax (Lazea, Balea-Stanciu and Bunget, 2025). Table 1 shows the forms of taxation of cryptoassets at the international level.

Switzerland considers crypto-assets as an “element of wealth” and subjects them to both income and wealth tax. Due to Switzerland's federal structure, there are differences in practice between cantons; while some cantons also tax crypto mining, other cantons adopt a more flexible approach (Yereli and Orkunoğlu-Şahin, 2018). This approach

Table 1. International Taxation Approaches of Crypto Assets

Country / Region	Tax Regime	Featured App
USA	Capital Gains Tax	• IRS recognizes mining as income.
AB	VAT Exemption and Income Tax	• VAT is exempt for Bitcoin in the EU.
Switzerland	Income and Wealth Tax	• Germany has adopted a long-term exemption.
Russia	Income Tax (Property Status)	• There are differences between cantons. • Generally subject to Wealth tax.
Africa (Kazakhstan)	No tax	• Draft law is under preparation. • It is regulated in the mining sector.
Kazakhstan	VAT + Income Tax (Mining)	• There is an informal economy.

Source: Compiled by author

ensures a more organized and transparent monitoring of digital asset transactions integrated into Switzerland's financial system.

After a long period of uncertainty, the Russian Federation recognized crypto assets as “property” and subjected them to income tax. However, the legislation is still under development, especially for new generation economic activities such as mining and token production (Kochergin, 2022). Russia's approach is seen as a reflection of the state's efforts to increase its control over the cryptoasset market. For developing countries, the picture is more complex. Many countries on the African continent have difficulty in regulating cryptoasset transactions due to a lack of legal infrastructure, which poses a serious risk of an informal economy. However, Kazakhstan has demonstrated a remarkable practice in its region and taxed crypto mining by legalizing it. This policy illustrates the fiscal potential of regulating mining in countries with high energy supply (Parsons, 2022).

3. Literature Review

The taxation of crypto assets and digital currencies is among the most serious problems faced by traditional tax systems. With the digitalization process, the production

of economic value has moved beyond physical borders, causing existing tax regimes to be insufficient against digital assets. This situation, especially with the advantages of transparency and traceability of blockchain technology, has brought serious technical and legal risks as well as opportunities for new generation tax practices Gezer (2023). In Gezer's study, a blockchain-based tax system was proposed and it was argued that the system would minimize informality. However, the author emphasizes that technical infrastructure deficiencies are the biggest obstacle to this transformation.

Kicova et al., (2025) using analytical methodology, argues that blockchain technologies may not work as effectively as centralized systems in the taxation of virtual infrastructures and that the lack of digital literacy, especially in developing countries, will create serious inequalities in implementation. His research shows that these gaps increase the risk of injustice in the global taxation system. Martinčević et al. (2022) examined different regulations in Europe using a comparative analysis method and stated that crypto assets are incompatible with existing systems due to the lack of accounting standards. Their study drew attention to valuation issues in particular

and revealed that measuring net gains has become nearly impossible.

Similarly, Misra (2024), in his policy analysis study, proposes a global digital infrastructure and argues that both developed and developing countries can minimize tax losses through this system. Misra points out that especially “blockchain-based public digital platforms” will play a key role at this point. Jozipović et al., (2024) argue that regulation and taxation should be handled together and point out that central banks' sphere of control will expand, citing the European Central Bank's digital currency efforts as an example. In their study, qualitative content analysis was conducted and the effects of different regulation models were analyzed.

Schmidt et al. (2020), on the other hand, made a global comparison based on differences in legal status and revealed that while some countries tax cryptoassets as “property”, others consider them as “payment instruments”, resulting in serious compliance issues. Vumazonke, & Parsons (2023) conducted qualitative field research in the case of South Africa and examined the erosive effect of cryptoassets on the tax base. In this context, he stated that the tax policy in these countries, where informal transactions are intense, is shaped by VAT. Working on the Scandinavian model, Kjærsgaard & Arfwidsson, (2019) compared Sweden and Denmark through judicial decisions and legislative analysis and found that both countries consider cryptoassets as investment instruments and subject them to income tax.

Vashisth, Salako and Pinto (2024) addressed the valuation issues of blockchain-based assets and stated that this situation creates “gray areas” in taxation processes as well as financial reporting. The study

compared the accounting standards of different countries using case studies. Peláez-Repiso, Sánchez-Núñez ve García Calvente (2021) in their open innovation-focused study, showed that the lack of regulation of cryptocurrencies harms systems that support entrepreneurship, and also leads to tax losses by increasing compliance costs. Yalaman and Yıldırım (2019), in their analysis of international tax administrations, drew attention to global compliance challenges and revealed that multinational companies can engage in tax arbitrage over cryptoassets. Blažič (2025) points out that hybrid tax systems may develop in the case of Serbia. Sitompul (2022), in an applied study in Indonesia, found that NFT and crypto revenues are directly subject to VAT, which creates an additional burden on economic actors.

Schmidt et al. (2020), in his analysis on the US model, stated that the IRS considers crypto assets as “property” and is therefore subject to capital gains tax. Bakradze (2021), on the other hand, pointed out that incorrectly designed tax policies may weaken the adoption of cryptoassets, and stated that informality may increase when the right balance is not achieved. (Kucharova, Pfeiferova, & Lórinčzova (2021) argue that the lack of regulation on a global scale can turn cryptocurrencies into “tax havens”, while Jain (2024) states that the lack of legal infrastructure in developing countries such as India causes serious problems.

The shift of the digital economy toward cross-border and stateless income generation in recent years has seriously challenged the fundamental principles of traditional tax systems and weakened the effectiveness of existing regulations (Chaisse & Kirkwood, 2022). Source- and residence-based taxation models are proving inadequate,

particularly in the face of blockchain-based decentralized economic activities; this situation necessitates the development of multilateral and harmonized models that are appropriate to the new structural nature of digital value production (Hongler & Habich, 2025). Plurilateral tax cooperation agreements led by the United Nations, proposed as an alternative to the OECD/G20's "Two Pillars" approach, enable developing countries to be represented more fairly, while also drawing attention to global tax coordination compatible with the digital economy (Singh, 2025). The literature emphasizes the need for radical reform in response to the digitalizing economy, particularly due to the incompatibility of stateless income structures with classical tax principles (Chaisse, 2021).

The question of whether digital assets are subject only to income tax or whether they can be recognized as "investments" under international investment law has created a new area of debate. Studies on the protectability of digital assets such as NFTs under bilateral investment treaties (BITs) show that these assets have not only financial identities but also commercial and legal characteristics (Butler & Tarawneh, 2024). This multi-layered structure highlights that digital assets interact not only with national tax systems but also directly with international trade and investment law.

The concept of "digital asset income" proposed specifically for Turkey is likely to strengthen compliance with international tax norms and support integration into the digital economy (Mishra & Valencia, 2023; Slawotsky, 2022). In addition, multilateral digital trade agreements such as the Digital Economy Partnership Agreement offer mechanisms aimed at regulating digital assets at the sectoral level and ensuring tax integration

(Singh, 2025). Integrating the model Turkey is developing into the international digital tax taxonomy will create a comprehensive approach that is both technically and legally appropriate for the needs of the age.

4. Topic and Purpose of the Study

The focus of this study is on the effects of Turkey's rapidly growing crypto asset market on the current tax legislation and legal infrastructure, as well as the resulting implementation issues. The lack of clear regulations in Turkey regarding the legal status and taxation of crypto assets has led to public institutions using different definitions and classifications, creating significant uncertainty in the legislation. This ambiguity has also brought about fundamental issues such as the failure to classify crypto gains under any of the seven income categories in the Income Tax Law, debates over whether crypto assets should be considered commodities or currency, and the unclear status of crypto assets under the Value Added Tax.

Within this framework, the aim of this study is to identify the legal gaps regarding the taxation of cryptocurrencies in Turkey, the approaches of regulatory authorities, and the current state of the market. In particular, Law No. 7418, which came into effect in 2024, and other institutional regulations are analyzed to detail Turkey's process of regulating the cryptocurrency market. Taking into account international practices and OECD standards, the aim is to develop a crypto asset taxation model that is specific to Turkey, effective, applicable, and fair. In addition, the study aims to provide legal and financial administration with recommendations to reduce tax loss risks, combat the informal economy, and promote the healthy development of the digital economy.

Articles

In this regard, the study seeks to answer the following basic research questions:

- To what extent is Turkey's current tax legislation sufficient for the legal classification and taxation of crypto assets?
- What are the main legal and institutional obstacles to subjecting crypto asset transactions to a comprehensive tax system?
- How can international best practices be integrated into Turkey's financial and legal structure?

Within the framework of these questions, the following research hypotheses are proposed:

H1: Turkish tax legislation does not provide a consistent and clear legal framework for the classification and taxation of crypto assets; this situation leads to uncertainties and enforcement difficulties in practice.

H2: The lack of defined income categories specific to crypto assets in the current legislation increases informality and leads to erosion of the tax base.

H3: A hybrid model combining elements from international practices could provide a more effective and adaptable structure for the taxation of crypto assets in Turkey.

5. Research Methodology

This research was conducted based on a qualitative research design with the aim of analyzing the legal, institutional, and practical gaps in the taxation process of crypto assets in Turkey. Document review and thematic content analysis methods were used together in the research. The qualitative approach was preferred because it allowed for a contextual in-depth analysis of existing regulations, institutional documents, and international comparisons related to the topic.

The documents examined in the study were grouped under four main categories:

National Legal and Institutional Documents: The Income Tax Law of the Republic of Turkey, the Value Added Tax Law, Law No. 7418, and the general communiqués, regulations, and application guidelines related to these laws were examined. In addition, circulars published by the Revenue Administration (GİB), guidance documents on crypto assets published by MASAK, regulations of the Central Bank of the Republic of Turkey (TCMB) and the Capital Markets Board (SPK), draft laws published in the Official Gazette, and TBMM commission reports were also included in the scope of the evaluation.

International Reports and Legislation Examples: The OECD's reports titled "Crypto-Asset Reporting Framework" (CARF), "Taxing Virtual Currencies," and "Digital Economy and Tax Challenges," as well as the European Union's MiCA (Markets in Crypto-Assets) regulation and Digital Finance Strategy Document were analyzed in detail. In addition, the crypto taxation approaches of countries such as the US (IRS), Germany, France, Switzerland, South Korea, India, and Kazakhstan have been examined and subjected to comparative legal evaluation.

Academic Sources: Scientific articles, theses, papers, and essays indexed in TÜBİTAK, DergiPark, and international databases (Scopus, Web of Science, HeinOnline, SSRN) were reviewed; studies focusing on topics such as the tax law of cryptocurrencies, their classification as goods/money, stateless income, digital value creation, informality, and tax transparency were selected.

Statistical Data and Secondary Databases: Market size, investor profile,

and transaction volume data obtained from institutions and platforms such as TÜİK, MASAK, CBRT, and Chainalysis were integrated into the study. These data were used as supporting evidence in determining taxation potential and audit capacity.

The scope of the research covers the period between 2018 and 2024. This time frame encompasses the process of the first institutional regulations on crypto assets in Turkey and the shaping of the legal framework with Law No. 7418. The period after 2021, in particular, is a period in which MASAK increased its audit capacity and a structure emerged that included brokerage firms registered with Borsa Istanbul. All data obtained were evaluated using thematic content analysis, a method frequently used in qualitative research. In the first stage, the documents were systematically scanned, and then common themes within the data sets (e.g., definitional gaps, tax category uncertainty, institutional fragmentation, implementation weaknesses) were coded and analyzed. The findings were classified along the axis of law-interpretation-implementation and laid the groundwork for the development of a tax model specific to Turkey.

6. Findings

6.1. Legal Infrastructure

6.1.1. Current Tax Legislation

As a result of the research conducted within the scope of the study, there is no clear definition or special provision regarding crypto assets in the existing tax laws in Turkey. Neither the Income Tax Law (Income Tax Law) nor the Corporate Tax Law (Corporate Tax Law) directly defines crypto gains; therefore, crypto asset income does not fall clearly within any of the seven statutory income categories crypto gains do not fit neatly (Ministry of Treasury

and Finance, 2022). In practice, there is also uncertainty about the legal nature of cryptocurrencies. Their classification as commodities, securities or money has different tax consequences (İnce, 2023). For example, many experts state that cryptocurrencies can be considered “commodities” like gold or silver, since they cannot be considered as securities since they do not grant ownership rights. In case of commodity acceptance, it is thought that crypto trading gains can be taxed as commercial income if they are made continuously, and as incidental income if they are incidental. In addition, since it is a commodity transaction, Value Added Tax will also come to the agenda. If it is considered as money, VAT exemption or different exemptions may also be in question as it will be considered as foreign currency. However, to date, there is no binding communiqué or guidance issued by the Revenue Administration on the declaration of crypto asset gains. In the comprehensive report prepared by the Tax Council, it was emphasized that the regulations for the taxation of crypto assets in the current system are not yet sufficient (Ministry of Treasury and Finance, 2022).

6.1.2. Approaches of Regulatory Authorities

While the legal gap on crypto assets continues, regulatory bodies have taken some steps. In a statement released in 2013, the BRSA stated that Bitcoin is not considered “electronic money” under the Payment Services and Electronic Money Law No. 6493 and is therefore not subject to its oversight and supervision. The statement added that Bitcoin and similar virtual currencies are not issued by any official authority and pose serious theft and fraud risks for users. In its September 2018 bulletin, the CMB warned investors about

Initial Coin Offerings (ICOs), emphasizing that most ICOs are outside the scope of regulation and involve high risk and speculation. In addition, the CMB stated that although ICO-like token sales have similar aspects to public offerings or crowdfunding, each of them should be evaluated separately. The CBRT made the first concrete regulation on the use of cryptocurrencies in payment systems with the Regulation dated April 16, 2021, defining “intangible assets created using distributed ledger technology and not qualified as fiat money, dematerialized money, electronic money, payment instruments, securities, etc.” as crypto assets and prohibiting the use of crypto assets in payments as of April 30, 2021 (Ince, 2023). With the amendment to the regulation published on May 1, 2021, MASAK included crypto asset service providers (crypto exchanges) as liable under the legislation on the prevention of laundering proceeds of crime. The guidelines published on May 4, 2021, introduced obligations such as customer identification, suspicious transaction reporting and keeping transaction records. However, MASAK regulations are aimed at combating money laundering rather than taxation.

6.1.3. Regulatory Initiatives in Parliament

The need to create a comprehensive legal framework for cryptoassets has gained urgency, especially after the victimization of exchanges such as Thodex in 2021. Immediately after the exchange scandals in April 2021, the authorities announced that

they were working to regulate the market. On March 1, 2021, the Ministry of Treasury and Finance announced that they shared global concerns about cryptocurrencies and that they were working on regulation together with the CBRT, BRSA, CMB and other institutions. At the end of 2021, it was publicized that a draft law on cryptoassets was being prepared and that taxation of cryptoasset transactions above a certain amount was on the agenda. However, this bill was not enacted and remained pending for a long time.

In mid-2024, the first law specific to crypto assets was adopted. Law No. 7418 added provisions to the Capital Markets Law, defining crypto assets, crypto asset service providers, crypto asset custody services, and providing for CMB supervision. This law, which entered into force with the Official Gazette dated July 2, 2024, was an important step for Turkey to integrate the crypto market into its legal system. However, details regarding taxation were not included in this regulation, and it was suggested that a new income item titled “digital asset revenues” should be added to the Income Tax Law (Ministry of Treasury and Finance, 2022).

6.2. National Academic Approach

In recent years, an increasing number of academic studies have been conducted in the field of digital economy and especially the taxation of crypto assets in Turkey. Articles published in referred journals and master's/doctoral theses shed light on the analysis of the current situation and solution proposals.

Table 2. Parliamentary Activities on Crypto Activities

Date / Period	Activity
	Following the abuses in local crypto exchanges, especially Thodex, the need to regulate the cryptocurrency market has become urgent by the state authorities and urgent work has been announced to the public.
April 2021	The Ministry of Treasury and Finance stated that they share worldwide concerns about cryptocurrencies and that they are working in cooperation with the CBRT, BRSA, CMB and other relevant institutions.
	It has been leaked to the press that a draft law on crypto assets is being prepared, and that the draft envisages a tax on transactions above a certain amount.
March 1, 2021	According to the draft, crypto asset transactions were considered within the scope of taxation, but the draft was not enacted.
End of 2021	While preparations for the regulations were underway, meetings were held with sector representatives under the leadership of the CMB and the Ministry of Treasury and Finance, and the draft was revised.
2022	A bill containing a crypto asset regulation was submitted to the Grand National Assembly of Turkey and started to be discussed in the commissions.
2023	The proposed Law No. 7418 on the Amendment of the Capital Markets Law was adopted by the General Assembly of the Parliament.
Early 2024	Law No. 7418 was published in the Official Gazette and entered into force. The Law introduced regulations on licensing and operating principles for crypto asset service providers under the supervision of the CMB.
June 2024	It was stated that the details regarding taxation have not yet been regulated and that a new amendment to the Income Tax Law is on the agenda to treat digital asset gains as a separate income item.

Source: Compiled from various sources.

Table 3. National Academic Approach to Crypto Assets

Author of the Study	Yılı	Purpose of the Study	Results of the Study
Günay, H. F. & Kargı, V.	2018	Evaluating cryptocurrencies from the perspective of the Turkish tax system, examining the practices of different countries and presenting taxation recommendations for Turkey.	It was found that crypto asset returns do not align clearly into existing statutory income categories, but carry significant tax potential. Initial discussions have been put forward.
Oral, B. G. & Yeşilkaya, Y.	2021	To examine how cryptocurrencies are classified in the world and the tax consequences of each classification and to develop recommendations for Turkey.	It was emphasized that a flexible and progressive taxation model should be adopted. It was suggested that a uniform approach is risky and that tax planning should be based on quality.
Oruçlar & Şahin	2022	Evaluating the legal and tax status of crypto assets, especially examining which income elements can be included in the Income Tax Law.	It was revealed that the legislation is insufficient for cryptocurrencies and that the existing legal framework should be updated to cover digital assets.

Author of the Study	Yılı	Purpose of the Study	Results of the Study
Bozdoğanoglu	2024	Addressing the inheritance and gift tax dimension of crypto assets and revealing the regulatory deficiencies in this area.	It has been determined that there are serious tax uncertainties in the inheritance of crypto assets. It is stated that the legislation should be updated.
Ünalın, G.	2019	To evaluate the taxation of cryptocurrencies within the framework of Turkish tax legislation and to analyze the tax consequences if they are accepted as securities.	It was emphasized that there is an urgent need to clarify the legal status of cryptocurrencies and to determine how they will be treated within the scope of Income Tax Law, KVK and VAT.
Kolçak, B.	2022	To comparatively analyze the role of international tax systems in the taxation of cryptocurrencies, to examine the OECD and EU approaches and to present model suggestions for Turkey.	It was concluded that many countries have made special arrangements for cryptoasset taxation, Turkey should take similar steps, and if legal clarity is not provided, there will be weaknesses in tax compliance and audit.

Source: Compiled from various sources.

6.3. Turkey Situation Analysis (Crypto Asset)

In recent years, Turkey has become one of the leading countries in the world in terms of the size and prevalence of the crypto asset market.

Turkey's Crypto Investor Rate

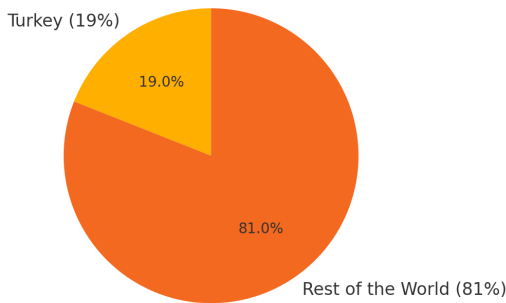


Figure 1. Turkey's Crypto Investor Ratio

Source: Triple A. (2024). *The Global Crypto Ownership Data 2024*. Retrieved from [https://triple-a.io/crypto-ownership/] – (Chart designed by the author.)

As of 2023, various studies have revealed that around 19-20% of the Turkish adult population is invested in crypto assets. For example, according to a report by the global

crypto platform Triple-A, approximately 19.3% of the Turkish population owns cryptocurrencies, ranking Turkey third in the world. This corresponds to an adult investor base of approximately 16 million people. Some sources suggest that this figure may be even higher, with Binance Research data suggesting that close to 40% of the population owns crypto assets.

Regionally, Turkey is the largest crypto market in the Middle East and North Africa (MENA) region. Between July 2022 and June 2023, most of the crypto transaction value in the MENA region originated from Turkey, and in the same period, Turkey ranked among the top 7 countries receiving the most crypto value flows on a global scale (Chainalysis, 2023).

Turkey ranks very high in terms of global crypto transaction volume. According to Chainalysis' 2022-2023 data, the crypto transaction volume recorded in Turkey in a one-year period exceeded USD 170 billion, making Turkey the fourth largest crypto market in the world. This transaction volume has pushed

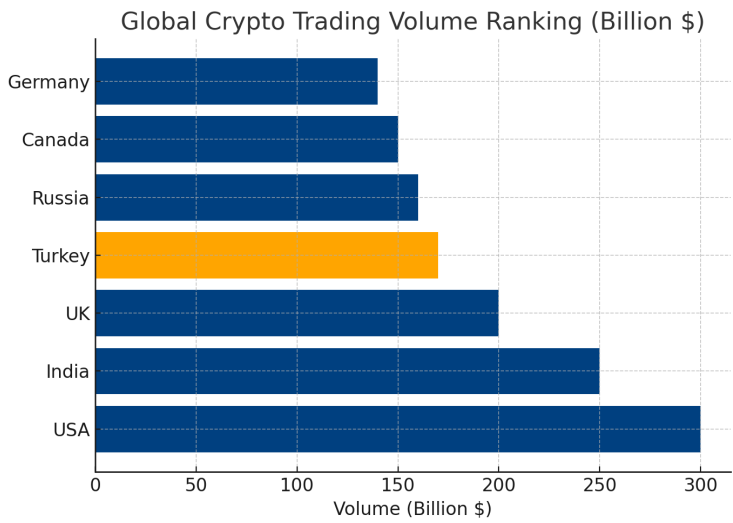


Figure 2. Global Crypto Trading Volume Ranking

Source: Chainalysis. (2023). The 2023 Geography of Cryptocurrency Report. Retrieved from <https://go.chainalysis.com/2023-geography-of-cryptocurrency-report> — (Chart designed by the author.)

Table 4. Indicator and Description

Indicator	Description
Crypto Investor Ratio	In Turkey, 19% of the adult population are cryptocurrency investors (Triple-A, 2024). Some studies claim that this rate is close to 40% (Webrazzi, 2023).
Number of Users	It is estimated that approximately 16 million adults in Turkey are cryptocurrency investors.
Global Trading Volume	Turkey ranks 4th in the world with a transaction volume exceeding 170 billion USD (Chainalysis, 2023).
Regional Location	Turkey is the largest crypto market in the Middle East and North Africa (MENA) region.
Local Exchanges	Local exchanges such as BtcTurk, Paribu and Bitexen have millions of users, with daily trading volumes sometimes reaching billion dollars.
Regulatory Status	As of 2024, crypto asset service providers are licensed under the supervision of the CMB.

Source: Compiled from various sources.

Turkey ahead of major markets such as Russia, Canada, and Germany. Turkey-based exchanges such as BtcTurk, Paribu, Bitexen continue their activities by reaching millions of users, and the daily trading volumes of domestic exchanges sometimes reach billion dollars. Turkey is the third country with the highest rate of crypto investors worldwide after the United Arab Emirates and Singapore.

Table 4 shows the cryptocurrency ownership rates of the adult population in some countries. Turkey's rate of around 19% is much higher than the global average and reflects a strong interest in digital assets. High inflation and the depreciation of the Turkish lira have been an influential factor in the public's shift towards cryptoassets in recent years. Individuals seeking to protect

their savings have sought to store value by investing in crypto instruments such as Bitcoin instead of traditional foreign exchange or gold. This has brought the use of crypto in Turkey to an explosion point in 2021-2022. In addition, the young population, who are prone to mobile technology, can easily buy and sell crypto through fintech applications.

6.4. Public Reports and Official Data

Public institutions in Turkey have made various assessments on the place and risks of crypto assets in the economy. Apart from the regulation in 2021, the CBRT (Central Bank) also mentioned crypto assets in its Financial Stability Reports and monitored the phenomenon of households turning to crypto assets instead of foreign currency deposits. The CBRT has also published technical studies highlighting the need to monitor cryptoasset transactions in order to keep healthy balance of payments statistics (Ülkür, 2023). TurkStat does not yet have a regular statistical data set on cryptoassets; however, in 2022, the Household Information Technology Usage Survey asked for the first time about the rate of “buying and selling cryptocurrencies” and it was observed that a certain percentage of respondents did so. MASAK collects partial data via notifications on the size of the market through notifications from cryptoasset service providers and audits. Indeed, in December 2021, MASAK announced that it imposed an administrative fine of TRY 8 million on Binance's Turkish arm (BN Teknoloji) for customer privacy violations. This was the first major sanction against

the crypto sector (MASAK 2021). In its 2022 Annual Report, MASAK mentioned that there was a significant increase in the number of suspicious transaction reports regarding crypto assets, and that the number of crypto suspicious transaction reports, which was only around 50 in 2021, increased to thousands in 2022.

Following the enactment of the law in 2024, the CMB has been drafting secondary regulations and preparing its infrastructure to evaluate the license applications of crypto asset platforms. The CMB's 2024 **Activity** Program includes targets such as the preparation of secondary legislation for crypto assets and the establishment of an audit mechanism. On the other hand, the Ministry of Treasury and Finance's Tax Council Report (2022) on the taxation of crypto assets is an important public work. This report analyzed in detail how crypto-asset revenues in Turkey can be evaluated according to existing tax laws, and calculated the taxes that will arise in different scenarios (such as money, commodities, securities acceptance). The report also compares the crypto taxation approaches of OECD countries and provides recommendations for Turkey. Among these suggestions are options such as defining a separate income item titled “digital asset gains” in the Income Tax Law, protecting small investors by exempting gains below a certain amount, and applying some kind of withholding mechanism on crypto transactions. Although it has not yet turned into official policy, such public studies may

form the skeleton of the taxation model to be implemented in the near future.¹

6.5. Assessments of Turkey by International Organizations

International organizations such as the OECD, IMF and the World Bank also make assessments on Turkey's digital economy and cryptocurrency ecosystem. In its comprehensive report published in 2020, the OECD classified the main problems faced by countries in the taxation of crypto assets, such as difficulty in definition and classification, valuation and earnings calculation methods, tax compliance and audit difficulties, and the need for international information exchange (Oral & Yeşilkaya 2021). The Crypto-Asset Reporting Framework (CARF) initiative, introduced by the OECD in 2021 and 2022, aims to increase the transparency of cryptocurrency transactions for tax purposes at the international level. With this framework, it is envisaged that crypto service providers will report the transactions of their users to national tax administrations and automatic exchange of information between countries (Tax Council Report, 2022). As a member of the OECD, Turkey is preparing to harmonize with such international standards; in fact, the Tax Council report states that the CARF draft has been reviewed and that Turkey should also establish infrastructure for information exchange.

On the Kazakhstan front, the macroeconomic and financial stability implications of the rapid spread of crypto use in emerging markets such as Turkey are often emphasized. The 2021 IMF Global Financial Stability Report noted that the tendency towards crypto assets increased during periods of inflation and exchange rate volatility in Turkey and called this situation "cryptoization". The IMF also recommended the establishment of a regulatory framework for cryptoassets in its Article 4 Consultations on Turkey. In particular, it was emphasized that it is critical for Turkey to implement cryptoasset regulation in order to get off the FATF (Financial Action Task Force) "grey list". As a matter of fact, Turkey, which was graylisted by FATF in 2021 due to deficiencies in the fight against black money, took an important step by enacting crypto legislation in the 2023-2024 period. The World Bank, on the other hand, in its publications on Turkey's transition to a digital economy, appreciates the progress in fintech and digital payment systems, while noting that crypto assets are also taking their place in the financial system. In the World Bank's Economic Report on Turkey for 2022, it is stated that the use of cryptocurrencies is gaining popularity as an alternative way out of the banking system, but this poses risks for consumers and the need for regulatory clarity is mentioned. In addition, the OECD and World Bank tax policy forums stated that if cryptocurrencies are not

¹ This study aims to analyze the legal and financial framework for the taxation of crypto assets, excluding elements such as institutional compliance, bureaucratic incentive mechanisms, and administrative capacity in the implementation phase. However, as frequently emphasized in public finance literature, the success of a tax policy depends not only on legal regulations but also on how these regulations are implemented in the field, the level of inter-institutional coordination, and technological integration capacity (Chaisse & Kirkwood, 2022; Hongler & Habich, 2025). In Turkey, issues such as the transfer of transaction data obtained from CMB-licensed platforms to the Revenue Administration's workflows and the coordinated use of MASAK's audit data remain unclear. In this regard, it should be noted that the study's limitation is that administrative inconsistencies and implementation asymmetries could not be examined in detail within the framework of public choice theory. For further analysis on the subject, see Chaisse (2021), Butler & Tarawneh (2024), Singh (2025), and other studies.

taxed in developing countries, there may be tax losses, so it is important for countries to update their legislation.

6.6. General Evaluation (Findings)

In recent years, Turkey has become one of the leading countries in the cryptoasset ecosystem in terms of both market size and user base. High inflation, the depreciation of the Turkish lira and the search for alternatives in the financial system have been the main factors driving individuals towards cryptoassets. Research shows that approximately 19% of the adult population in Turkey invests in crypto assets, with some sources suggesting that this rate is closer to 40%. With these rates, Turkey is the third country with the highest rate of crypto investors in the world after the United Arab Emirates and Singapore. On a global scale, Turkey is the fourth largest crypto market with an annual trading volume of USD 170 billion. With the impact of domestic crypto exchanges BtcTurk, Paribu and Bitexen, crypto trading has reached a broad segment of investors.

On the regulatory side, Turkey took an important step in 2024 by placing crypto asset service providers under the supervision of the CMB through Law No. 7418. However, this law does not include taxation provisions, and it is currently unclear how crypto gains will be taxed. Reports by the Tax Council and other institutions have suggested adding a new income element to the Income Tax Law, such as “digital asset gains”. Turkey is also taking steps to harmonize with international regulatory and information exchange initiatives. Efforts such as the OECD's Crypto-Asset Reporting Framework (CARF) are being closely monitored by Turkey. In summary, Turkey has a strong crypto market, but has significant structural gaps in tax and

regulation that have yet to be clarified. This rapidly growing area increases the need for an effective legal and fiscal framework in terms of both public revenues and financial stability.

6.7. International Comparative Analysis Through Contextual Variables and Adaptive Behaviors

Crypto asset taxation models are shaped not only by legal classifications but also by countries' socio-economic dynamics and institutional capacity. In this context, the contextual variables of the countries that Turkey takes as examples in shaping its tax policies should not be overlooked. The United States defines crypto assets as property and subjects them to capital gains tax through the Internal Revenue Service (IRS). This model is based on an economy that does not face a widespread informal economy, has high digitalization rates, and possesses strong regulatory institutions (IRS, 2022). On the other hand, in countries governed by civil law systems such as Switzerland and Germany, cryptocurrencies are subject to income tax and sometimes VAT. Kazakhstan, on the other hand, has included cryptocurrency mining within a legal framework through a central authority, but has limited experience in the taxation of ownership (OECD, 2023). In the case of Turkey, there is a fintech development driven by the young population. According to TripleA (2024) data, Turkey leads the world with a 52% cryptocurrency ownership rate. This situation is related to Turkey's young median age (33.1) and technological adaptation capacity. The following graph illustrates the relationship between median age and cryptocurrency ownership rates:

The scatterplot suggests a potential inverse relationship between the median age of a country and its cryptocurrency

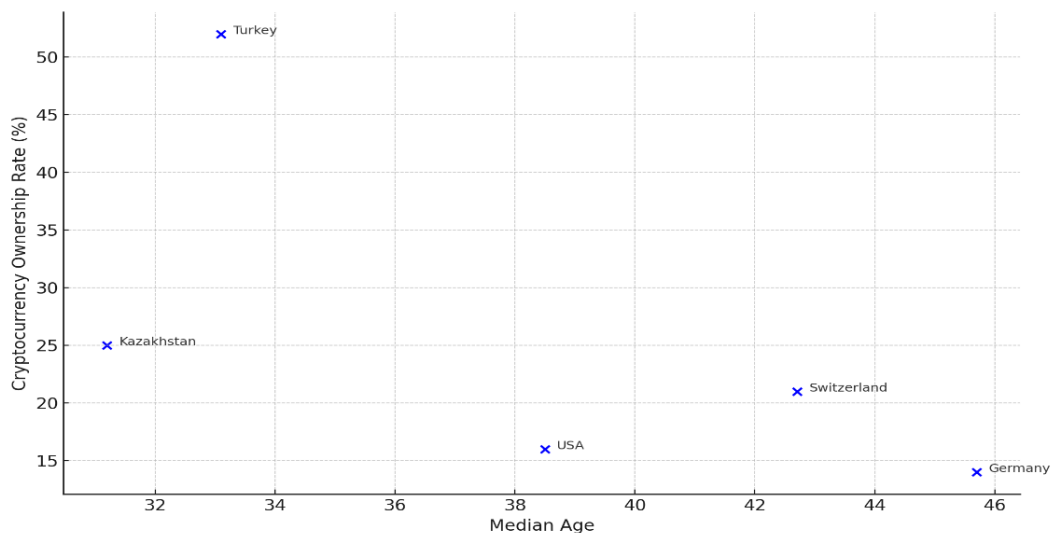


Figure 3. Global Crypto Trading Volume Ranking

Source: TripleA (2024). *The Global Crypto Ownership Data 2024*. Retrieved from: [https://triple-a.io/crypto-ownership/] – Compiled and visualized by the author.

ownership rate. It is interesting to note that Turkey and Kazakhstan, with relatively younger populations, exhibit higher ownership rates compared to more demographically mature countries such as Germany or Switzerland. This suggests that youth-driven digital adoption may be a critical determinant in the spread of crypto-assets. Therefore, any regulatory or taxation model proposed for Turkey must consider the demographic composition and behavioral traits of younger investors, who are more inclined to adopt and trade digital assets.

When examining international practices regarding the taxation of crypto assets, it is not sufficient to focus solely on legal definitions. The approach adopted by each country is a result of contextual factors such as that country's legal system, administrative capacity, technological infrastructure, and financial culture. Therefore, rather than directly comparing different country practices,

it is necessary to consider the institutional and structural dynamics behind these practices. The table below classifies some frequently referenced countries in terms of both their legal systems and tax administration capacities, thereby enabling a more accurate analysis of similarities and differences with Turkey.

This table provides a comparative framework of different countries' legal systems, the taxation status of crypto assets, administrative capacity, and notable application features. First, it is evident that the legal system has a decisive influence on the definition of crypto assets and the approach to taxation. The US has leveraged the flexibility of the common law system to define crypto assets as property and has implemented this through the IRS with strong administrative capacity. Switzerland, on the other hand, has developed a decentralized structure for taxation within its civil law system

Table 5. Comparative Taxation of Crypto Assets Across Legal Systems and Administrative Capacities

Country	Legal System	Crypto Tax Status	Tax Administration Capacity	Key Feature
United States	Common Law	Taxed as Property (IRS)	High	Strong administrative discretion
Switzerland	Civil Law	Taxed as Wealth/Capital	High	Municipal-level implementation
Kazakhstan	Civil Law	Taxed as Income (as of 2023)	Medium	Explicit crypto mining regulation
Germany	Civil Law	Tax-free if held >1 year	High	Conditional exemptions
Turkey	Civil Law	Not legally defined	Medium	Centralized enforcement, emerging legislation

Source: This table was compiled by the author using official data and publications from the IRS (USA), Swiss Federal Tax Administration, National Bank of Kazakhstan, German Federal Ministry of Finance, and the Republic of Türkiye's Ministry of Treasury and Finance and MASAK (2021–2023).

by delegating authority to the cantons. Despite having a moderate administrative capacity, Kazakhstan stands out for having explicitly regulated mining activities and income tax as of 2023. Germany has adopted a model that exempts crypto assets from taxation if held for more than one year, offering long-term incentives to investors. Turkey has not yet established a legal definition; however, it has begun to develop a centralized application structure through various regulatory steps taken by MASAK and the Ministry of Treasury and Finance. However, the scope of the application is still limited, and the medium level of administrative capacity may create difficulties in transitioning to a comprehensive tax system.

7. Recommendations for Turkey

In light of the above analysis, it is believed that the outlines of a crypto asset taxation model specific to Turkey has emerged. A model has been proposed by taking into account some legal, supervisory and technological shortcomings.

7.1. Legal Recommendations

First, the legal definition should be clarified. Crypto assets should be defined in the legislation as goods, precious metals, foreign exchange, securities or a separate category of “digital assets”. In line with this definition, the Income Tax Law should specify the income element that crypto gains will fall under. The Tax Council has also stated that a separate category of “Digital Asset Income” could be added. In the event that the definition is made as goods or rights, it is considered that the provisions of value increase gain may be applied. It is thought that it would be appropriate for the tax system to declare crypto sales gains above a certain amount with an annual declaration and subject to income tax. If crypto asset trading is carried out within a commercial organization, the Turkish tax system is already capable of taxing it as commercial income. In this framework, the regulation should clearly distinguish between individual investors and institutional investors.

Tax compliance should be encouraged by granting tax exemptions or exceptions up to a certain amount for occasional

crypto transactions by individuals. The VAT aspect should also be handled according to classification: If crypto-assets are considered “money”, they will be exempt from VAT; if they are considered “commodities”, their purchase/sale will be subject to VAT. Turkey may consider emulating a similar approach to the 2015 ruling of the Court of Justice of the European Union, which deemed Bitcoin transactions as a financial transaction exempt from VAT. In terms of corporate tax, the inclusion of income from crypto assets in the company's assets in the corporate income is already in compliance with the legislation. Here, crypto asset valuation and gain calculation methods should be clarified with a possible correction.

7.2. Supervisory Recommendations

Due to their technological characteristics, the most critical issue in tax collection from crypto assets is the monitoring and audit mechanism. At this point, the success of the applicable model should be based on healthy information to be obtained from exchanges and financial institutions. As licensed crypto platforms will be formed thanks to the CMB regulation that entered into force in 2024, crypto exchanges may be required to report user transaction information to the Revenue Administration at certain periods. This would also be in line with the OECD's CARF standard. For example, on an annual basis, the total trading amounts and profit/loss of users can be reported to the tax administration. Similarly, TL transfers and withdrawals to and from crypto exchanges through banks and payment institutions are already under MASAK surveillance. These can also be used for tax purposes. With a declaration-based system, taxpayers would initially declare their own earnings, while the

Revenue Administration could cross-check with incoming third-party information to verify the accuracy of taxation.

This model is the approach adopted by many OECD countries, and the Tax Council report also notes that international cooperation is a critical dimension in the declaration procedure of most OECD countries. Since cryptoassets can be transferred across borders, a single country's taxation regime alone may bring some incidental arbitrage opportunities. Therefore, Turkey should actively participate in the global tax initiatives developed under the G20 and OECD. In 2023, Turkey's taxation model should be aligned with international best practices, taking into account the recommendations in the Crypto Asset Policy Framework approved by the G20 and the joint IMF-FSB (Financial Stability Board) reports. In particular, it would be appropriate to take steps to include crypto account information in automatic information exchange agreements to prevent tax evasion.

These proposals aim to create a highly enforceable taxation regime suitable for Turkey's already digitalized economy. Of course, the details will be discussed and determined in the legal process. But with a holistic view: The current situation analysis shows that cryptoasset taxation in Turkey is now an inevitable necessity. A properly designed model will both increase public revenues and contribute to the sustainable development of the digital economy by giving confidence to the market. The legal infrastructure elements, academic insights and current data we have discussed here will form a critical foundation for the construction of this model. The next step is to build a balanced and effective tax regulation on this foundation with political will and stakeholder participation.

7.3. Testing Research Hypotheses

In this study, three basic hypotheses developed within the framework of the research questions presented in Chapter 4 were tested using qualitative methods based on an analysis of the current legal, institutional, and economic structures related to the taxation of crypto assets in Turkey. The findings of the study and the results of the content analysis are summarized below:

H1 (Turkish tax legislation does not provide a clear and consistent framework for the classification and taxation of crypto assets) hypothesis has been confirmed. The absence of a specific provision for crypto gains in the Income Tax Law has led to serious differences in interpretation regarding which of the seven income elements such income falls under. Additionally, the use of different definitions by regulatory bodies such as MASAK and SPK further exacerbates legal inconsistencies and implementation complexities (see 6.1 and 6.4). This situation creates uncertainty in practice for both taxpayers and the administration.

The hypothesis **H2** (The absence of income categories specific to crypto assets increases the informal economy and tax base erosion) has also been confirmed. Despite having one of the highest rates of crypto investors worldwide, a significant portion of transaction data in Turkey remains outside the system. As noted in reports by MASAK and the Ministry of Treasury and Finance, the risk of an informal economy is increasing due to both individual investors' tendency not to declare income and transactions conducted through unregulated platforms (see 6.3, 6.5). This situation results in significant losses in the tax base and conflicts with fiscal transparency.

The hypothesis that a hybrid model adapted from international practices could be more effective and feasible for Turkey

(H3) has been partially confirmed. The proposed model, developed in light of international examples, offers a framework that can be adapted to Turkey's needs and capacities (see 6.7). However, the success of its implementation depends not only on the technical accuracy of the model but also on Turkey's institutional capacity, digital audit infrastructure, and bureaucratic coordination capabilities. For example, the integration of user data obtained from SPK-licensed exchanges into GiB systems still involves technical and administrative uncertainties. Therefore, H3 hypothesis is supported at a conceptual level but exhibits a structure that requires advanced application and impact analyses to be fully validated.

Conclusion

The rapid proliferation of crypto assets in economic systems seriously challenges traditional tax systems and necessitates a flexible and inclusive taxation approach compatible with the digital economy. Although Turkey has an important position in the global crypto ecosystem with its high crypto investor ratio and transaction volume, the inadequacy of the legal and fiscal infrastructure in this area leads to losses in public revenues and threatens the market order. The analysis conducted in this study reveals that the current Turkish tax legislation has serious gaps in the definition, classification and taxation of crypto assets.

Although Law No. 7418, which entered into force in 2024, established a regulatory oversight framework, uncertainty in tax legislation persists. For taxation to be effective, crypto assets should be defined as "digital assets", regulated as a separate income item under the name of "digital asset income", and an exemption threshold should

be set that takes into account the investor profile. In addition, it is recommended to strengthen the effective audit capacity of the RA with user transaction data obtained from platforms licensed under the supervision of the CMB.

At the international level, Turkey's compliance with information sharing mechanisms such as the OECD's Crypto-Asset Reporting Framework (CARF) is critical for both tax transparency and fiscal integration. In conclusion, this study argues that Turkey should develop a modern and feasible crypto-asset taxation model that is suitable for Turkey's digitalized economic structure and that the proposed model will contribute to both strengthening fiscal discipline and enhancing investor confidence in the crypto market.

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