Monetary and Banking Research Institute
Central Bank of the Islamic Republic of Iran

Regulatory framework for cryptocurrencies in Iran: Review international approaches and make suggestions

Mahshid Shahchera

Policy Report
MBRI-PR-1402
www.mbri.ac.ir
October 2021

Monetary and Banking Research Institute
Central Bank of the Islamic Republic of Iran

Monetary and Banking Research Institute (MBRI) published the Policy Paper on "**Regulatory framework for cryptocurrencies in Iran: Review international approaches and make suggestions**"

Monetary and Banking Research Institute

Central Bank of the Islamic Republic of Iran

No.10, Africa Ave., Argentina Sq.,

Tehran.Iran.P.O.box:16765-1654

www.mbri.ac.ir

Contents

Monetary and Banking Research Institute
Central Bank of the Islamic Republic of Iran

Regulatory framework for cryptocurrencies in Iran: Review international approaches and make suggestions

Mahshid Shahchera

1. Clarifying the issue

Legislators in the financial and money markets are having a hard time agreeing on cryptocurrencies. Given the complexity of the cryptocurrency regulatory process and disagreements in this area, this report is devoted to this issue with an emphasis on cryptocurrencies. In the case of cryptocurrencies, there are sharp differences in their classification and definition for each. Recently, a warning about the risks of virtual currencies to consumers has been issued and extensive research has been conducted on the potential risks of these types of assets. The need to establish rules and regulations for this type of asset is emphasized by many international organizations, which we will examine in this report.

The regulator at the central bank level must address the issue of the difference between cryptocurrencies and encrypted assets. In this area, the nature and classification depending on the functions of each is important. Structural challenges and legal ambiguities, pros and cons, and different approaches to the digital currency business are among the controversial issues. Encrypted assets are digital representations of assets that create space for micro-investments in the country by tokenizing assets and activating frozen assets. Lack of consensus on terms, definitions, and classifications can be a major obstacle to building a strong regulatory framework and may impede greater regulatory coordination in financial markets. Given the inherent nature of cryptocurrency transactions, clear interpretation of terms among regulators may facilitate oversight.

On the other hand, improving data collection on cryptographic activities - both domestically and internationally - is important for observers to understand the risks and opportunities that could significantly affect their regulatory objectives. A broader and more accurate empirical data set can be obtained directly from market participants or other regulatory bodies.

2. Explaining the current situation

At present, cryptocurrencies are likely to resemble speculative assets. Therefore, there are different opinions about cryptocurrencies and their nature that will make the legislative process more difficult.

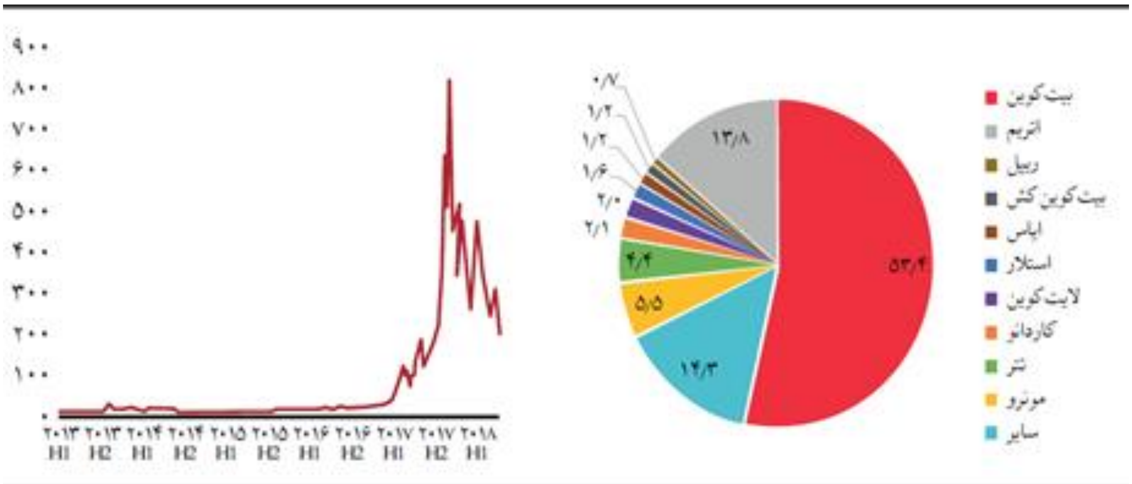
Large banks and financial institutions and companies and investors are investing heavily in these technologies. Technology enthusiasts claim that cryptocurrency technology will change everything. But increasingly, market players are realizing that gaining the benefits of this technology may be more difficult than previously thought. Also, the growing size of files raises serious concerns about data storage and, ultimately, Internet bandwidth. In addition, setting up an effective and timely payment system is very time consuming. This has led to the latest generation of cryptographic technology turning to "centralized systems" in which only a few nodes are allowed to authenticate transactions. (Abadi & Brunnermeier , 2018).

In general, the following can be mentioned about the characteristics of digital currencies:

- A cryptocurrency is a digital payment inventory that is protected from counterfeiting, fraud, and scam.
- A special cryptocurrency can be used for the security and accuracy of transactions as well as control over the creation of new units.
- The operation performed is not revocable.
- Information about the operation performed is usually freely available.
- Cryptocurrencies are produced, calculated, and requested without any internal or external control and have no control center or physical reality.
- Allows users to perform transactions anonymously. Although each transaction is recorded and made public, it can send or receive different amounts without the use of personal information such as name, address, etc.
- Low transaction fees.

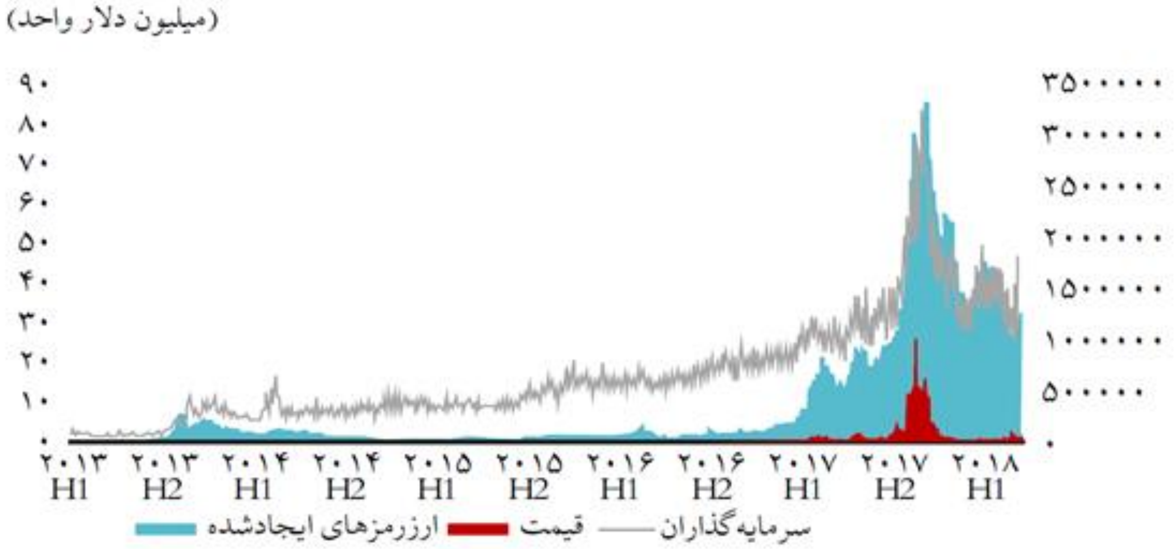
Despite the stated features of cryptocurrencies, this technology is being widely disseminated. Investment in the cryptocurrency market, after a peak of more than $ 800 billion, has significantly decreased in 2018 to about $ 200 billion (Figure 1).

Figure 1. Cryptocurrency market from 2013 to 2018



Revenue from the extraction of new cryptocurrencies has risen sharply over the past five years. As of late April 2013 to July 18, 2018, the average daily mining income increased from $ 0.7 million to $ 33 million. Daily revenue in 2018 averaged more than $ 44 million and more than 1.6 million individual users engaged in day-to-day transactions (compared to 119,000 in 2013) (Figure 2).

Figure 2. Number of investors and profits from the cryptocurrency market from 2013 to 2018
Source: coinwww.coinmetrics.io



Despite such expansion and involvement in financial markets, the behavior of legislators and financial regulators becomes more important. Establishing rules and regulations in this field and adapting to the structure will play an important role in establishing and expanding technology in the coming years. The rapid growth of encrypted attests has raised questions about the appropriate regulatory environment and the existing regulatory capacity to adapt.

3. Explaining the roots

The regulatory debate over how to monitor encrypted assets has raised major concerns in global forums (Demertzis & Guntram, 2018). These concerns include the following:

First, the extent to which new technology allows the use of innovative sources of financing, which reduces the cost of financing. Currently, cryptocurrencies play an important role in securing the European economy. Also, Blockchain technology can expand access to finance for smaller companies and reduce the transaction costs of financial transactions. Therefore, maintaining the innovation environment in this technology should be a constant focus of financial regulators.

Second, encrypted assets are used for illegal activities and can be used for infringement. Because transactions in encrypted assets can be done anonymously, they can be misused.

Third, consumer and investor protection issues need to be carefully considered. The digital nature of encrypted assets makes them directly available to the public, provided that individuals have a wealth of digital knowledge. Wide access is desirable, but vulnerable groups should also be considered.

Fourth, there is the issue of financial stability in the use of cryptocurrencies. High price fluctuations in the market can cause financial instability problems. Nevertheless, it should be borne in mind that according to the International Monetary Fund (2018) and the Basel Committee (2018), there is a broad consensus that the technology in cryptocurrencies is interesting and promising. However, it is thought that this technology is still very much changing, and with the advent of various programs, we are only looking to understand this technology and adapt it to different uses. At present, the total value of encrypted assets is still small and therefore is not expected to pose a significant risk to financial stability or, indeed, to other sectors.

Fifth, the regulatory approach must be consistent with the technical nature of the encrypted assets, especially when they are based on completely decentralized systems. Nowhere in this process is the identity of the exporter revealed. Therefore, it is not possible to monitor encrypted assets in this way, because it is just a piece of software code that exists on the Internet. Instead, all those who work with encrypted assets can be monitored. Therefore, the regulatory approach must be consistent with technology.

The regulatory framework for cryptocurrencies should be based on their functions of exchange, payment instrument, and extraction.

An examination of the existing regulations shows that, with the exception of the tax authority and, of course, the notification of the government regarding cryptocurrencies to the relevant institutions, no formal action has been taken so far regarding transparent regulation in the field of cryptocurrencies. In this regard, the bank is conducting preliminary studies on its technical and legal aspects in Iran, and other legislative bodies, such as the Stock Exchange Organization, have not taken effective action in this area. However, cryptocurrencies are one of the products based on Blockchain decentralized systems and must have their own policies, regulations, and standards for identification and disclosure based on the requirements of various regulatory bodies. In addition, it is expected that the Ministry of Communications and Information Technology, along with the changes, will provide a suitable infrastructure and platform for the development of cryptocurrencies in the country.

Therefore, each cryptocurrency, depending on the domain in which it operates, must have its own legal entity. The central bank, in cooperation with other relevant institutions, should regulate in this regard. Therefore, in the field of supervision and control, the Central Bank in cooperation with the Ministry of Economy and the Ministry of Industry can enter and provide regulations in this area. What is important is that the central bank be the flagship of development of regulation and supervision in this sector.

Tax collection in the field of cryptocurrencies is also the key to transparency in this area. Fortunately, the tax administration can use its powers to collect taxes using self-declaration system information and information from the Sana and Nima systems and general information about cryptocurrencies such as extraction difficulty which are regulated in this area. It can receive the tax on the extraction of cryptocurrencies automatically and ahead of time, and by receiving cost documents from the extractors and immediate inquiry from the power companies and customs office, return the additional tax to them. This requires the cooperation of the Tax Authority with the Ministry of Energy, the Ministry of Industry and Mines, the Ministry of Communications and Information Technology, and the Central Bank. Accurate identification of actors and intermediaries in the field of cryptocurrencies can help more successful cooperation of organizations and regulatory bodies in this field.

Table 3. Proposed framework for monitoring cryptocurrencies

	Types of functions in cryptocurrencies	Existing rules and regulations	Regulatory measures
Encrypted Asset Regulatory Framework	Exchange	- General rules and regulations of exchange offices - Executive instructions to combat money laundering in exchange offices (Circular 181434 / T 3182) - Documenting the flow of funds (211815 / T39395) - Set of foreign exchange regulations (1013 / 1391-60) - National identity card of real and legal persons (16169 / T39271) and approval of the comprehensive number of foreign nationals (16173 / T40266) - Requirements related to the Currency Monitoring System (Sana) - Capital market regulations in case of exchange in the stock exchange market - Banking rules and regulations in case of exchange in banks - Financial Reporting Regulations (IFRS32 IFRS8 IFRS3 IFRS9)	- Development of exchange rules in cryptocurrencies (rules governing transactions, including money laundering and customer identification rules) - Creating electronic infrastructure for exchanging cryptocurrencies separately from the Sana system - Development of tax laws and regulations based on transactions in cryptocurrencies to earn income in banks and exchange offices - Codification of new rules and regulations of the capital market in order to buy and sell tokens on the stock exchange
	Payment tool	- Anti-money laundering law of Iran - IFRS2 International Financial Reporting Regulations - Transaction information in the regulations of keeping documents	- Codification of money laundering regulations in the process of clearing and payment of cryptocurrencies - Providing a special settlement and

		and bank ledgers, (2007-2010 / 80223) - Instructions for observing the fight against money laundering in the payment system and electronic banking - Regulations governing payment service providers - The policy of the Central Bank regarding financial technology and payment systems criteria - Monetary and Banking Law of Iran - Requirements and directives of the Central Bank for banks	payment system for cryptocurrencies, especially for national cryptocurrencies - Development of regulations for identifying special customers of cryptocurrencies
	Extraction	- Industry laws and directives - Law on how to transfer ownership and management of industrial companies - Law on licensing and activity of an industrial unit - Instructions of the Ministry of Energy and the price of extracting digital currencies (100/20/36376/98) - Regulations for the extraction of encrypted processing products (Cabinet 58144 / T55637-1398)	- Collecting data of extractors based on electricity consumption - Requirements for identification and registration of companies active in the field of cryptocurrency extraction - Changing tax laws and regulations based on the extraction of cryptocurrency - Expansion of communication infrastructure in the field of mining improvement - Adjusting the regulations for issuing operating licenses of companies active in the field of mining

4. Explanation of solutions

The regulator at the Central Bank must address the issue of the difference between cryptocurrencies and encrypted assets. In this area, the nature and classification depending on the functions of each is important. Structural challenges and legal ambiguities, pros and cons, and different approaches to the digital currency business are among the controversial issues. Encrypted assets are digital representations of assets that create space for micro-investments in the country by tokenizing assets and activating frozen assets. The use of encrypted assets as financial instruments will reduce the money creation crisis and prevent the diversion of the country's capital, while cryptocurrencies are still evolving, changing, and developing.

Regulatory authorities in the country should seek a precautionary and comprehensive approach to regulation that results from a thorough review of existing risks. Regulators need to monitor developments to carefully analyze risks, identify the most important vulnerabilities, and prioritize them. In continuous interaction with the market, this ability will be created so that the authorities can anticipate market risks and actively seek appropriate measures. The approach chosen by each jurisdiction can be different in the case of precautious wisdom. The development of regulatory frameworks should be based on priorities and resources on an ongoing basis, but ongoing risk assessment and strategic planning should be comprehensive and involve all financial sector regulators and other relevant authorities. Regular and appropriate coordination of all relevant authorities ensures a clear allocation of responsibilities ahead.

It should be noted that high fluctuations in the value of global cryptocurrencies increase the risk of direct and indirect involvement of governments, banks, and financial and credit institutions in this area. The current legal infrastructure is largely sufficient to regulate the encryption approvals of cryptocurrency in the private sector, and it seems that in the current situation there is no need to enact new laws, and the required institutional framework can be reformed and formulated through the government. In this regard, to regulate in Iran and develop a regulatory framework it is necessary to pursue the following goals:

- Ensuring the safety and efficiency of the financial and banking system,
- Protecting consumers and foreign investors,
- Minimizing opportunities to circumvent regulatory rules, and combating circumvention of currency control rules and regulations;
- Combating non-financial flows and money laundering and financing of terrorism,
- Combating tax evasion,
- Supporting financial inclusion and technological advances.

In this report, the existing regulatory requirements were examined and their relationship with cryptocurrencies was determined. Necessary improvements and proposed measures were also provided to improve regulations. According to the international standards mentioned in the report, each cryptocurrency will have its own legal entity, depending on the area in which it operates.

The Central Bank must select and establish its exchange systems and infrastructure; Also, it should prevent the purchase and sale of foreign currency from mining for commercial purposes.

Accurate identification of extractors and identification of customers specific to cryptocurrencies can be effective in improving the monitoring process in this area. The joint cooperation of the Ministry of Energy, the Ministry of Communications and Information Technology, the Ministry of Industry and Mines, and the Central Bank in this regard seems necessary.

The most important proposed monitoring measures can be done in the following areas:

1. Cooperation of organizations and legislative institutions of the country in the field of cryptocurrencies,
2. Identifying and supervising intermediaries and players active in this field (companies providing services and exchanges),
3. Identifying customers and activists in this market and compiling big data,
4. Expansion of cryptocurrency exchange systems by the Central Bank,
5. Implementing the mechanism of tax collection from cryptocurrencies by the country's tax organization.

Monetary and Banking Research Institute

Central Bank of the Islamic Republic of Iran

No.10, Africa Ave., Argentina Sq.,
Tehran.Iran.P.O.box:16765-1654

www.mbri.ac.ir