Makurin A. A., Doctoral Student

Kharkiv State University of Food Technology and Trade Kharkiv, Ukraine;

> Ph.D., Associate Professor Dnipro University of Technology Dnipro, Ukraine

DOI: https://doi.org/10.30525/978-9934-26-028-5-48

CRYPTOCURRENCY AS AN OBJECT IN ACCOUNTING

The information technology development results in the origin of new types of cryptocurrency. Main advantages of the cryptocurrency use are decentralization and freedom of transactions. Cryptocurrency acts worldwide as the inexpensive technological means of payment as well as special form of investment.

Nowadays, there is no shared idea as for the interpretation of the "cryptocurrency" concept. On the one hand, it is considered as the "virtual currency" and called both a special payment network and a new type of monetary means. On the other hand, it is called a "digital asset", which can be exchanged for other assets. Cryptocurrency is characterized by a free market rate formed on the demand-supply basis.

Accounting of the traditional monetary means is performed in terms of the identification of a payment instrument and participants of the agreement. Such a process may be represented as follows: "seller – buyer" (agreement) on the "money-goods" principle. That is the approach which helps conduct short-term transactions in terms of similar location of the counterparties. While using cryptocurrency, which may be represented as a series of bytes of certain information, it is necessary to have electronic payment system acting as an intermediary. Main task of such system is the accounting control providing non-admittance of repeated set of bytes. Nowadays, there are a number of similar systems, which increase the risk of data and information fraud. Bitcoin (cryptocurrency) does not mean the involvement of the third parties to conduct monetary operations; thus, a blockchain system can be considered rather safe.

During the recording of cryptocurrency and operations with it, the accounting has certain legal limitations as the legal status of such assets is different worldwide. It is within the range from virtual currency, monetary surrogate, virtual goods, and digital asset to the intangible asset. Basing on that, there are no legal grounds to recognize cryptocurrency as a payment instrument in Ukraine. Along with that, it is not prohibited to convert cryptocurrency into the national currency and vice versa as such operations are not prohibited at the legislative level; thus, there is no violation of the national legislation. Bitcoin-ATMs already function in the developed countries worldwide but the nonavailability of the regulatory system does not allow the operation of electronic payment system PayPal (cryptocurrency) in Ukraine [1].

Correct legal interpretation and recognition are the basic problems for the cryptocurrency recording in accounting. Due to that, in case of cryptocurrency recognition as a digital currency, it is proposed to use synthetic account 336 "Other means of digital currency" (virtual wallet); in case of cryptocurrency recognition as a variety of electronic money, it is proposed to use synthetic sub-ledger account 335.1 "Variety of electronic money"; if cryptocurrency is recognized as virtual goods, then one should use synthetic sub-ledger account 287 "Virtual goods"; if cryptocurrency is recognized as a financial investment, then one should use synthetic sub-ledger account 352 "Other current financial investments"; if one recognizes cryptocurrency as an intangible asset, then it is recommended to use synthetic sub-ledger account 127 "Other intangible assets". Table 1 shows variants of cryptocurrency accounting depending on its recognition.

It should be also noted that "pool" of digital currency is a base of mathematical problems; while solving those problems with the help of ASIC, miners get their profit [2]. One can identify the "pool" profitability. A miner usually gets his/her profit from such a pool every 24 hours. Using certain site, it is possible to determine main features of any pool functioning. Fig.1 represents key information in terms of each certain transaction in the blockchain network as for the profit and reward of a miner.

Table 1

| No. | Content | Debit | Credit |
|-----|---|---|--|
| 1 | Purchase of cryptocurrency and determination of the financial prime cost of the investment | 352 "Other current financial investments» | 311 "Current foreign currency accounts" |
| 2 | Cryptocurrency mining | 154 "Purchase of intangible assets" | 66 "Staff remuneration settlements" |
| 3 | Receipt of electronic money in the form of cryptocurrency for the shipped goods | 335.1 "Variety of electronic money" | 361 "Settlements with buyers and ordering parties" |
| 4 | Intangible assets (cryptocurrency) are purchased for foreign currency on the exchange market | 127 "Other intangible assets" | 312 "Current foreign currency accounts" |
| 5 | Virtual wallet replenishment with digital currency by an accountable party | 336 "Other means of digital currency" | 372 "Settlements with the accountable parties" |
| 6 | Contribution to the statute capital in the form of virtual goods | 287 "Virtual goods" | 46 "Unpaid capital" |

Recording of cryptocurrency in accounting in terms of its recognition

Source: Generalized by the author

Despite all the available scientific works, a problem of cryptocurrency accounting from the viewpoint of the International Accounting Standards (IAS) is still rather disputable [3]. On the one hand, the majority proposes to account it as a specific intangible asset as it meets the following conditions [4]:

- Possible identification with further sales;
- It acts as a nonmonetary asset;
- It has no physical form;

- There is the probability that in future it will be economically profitable.

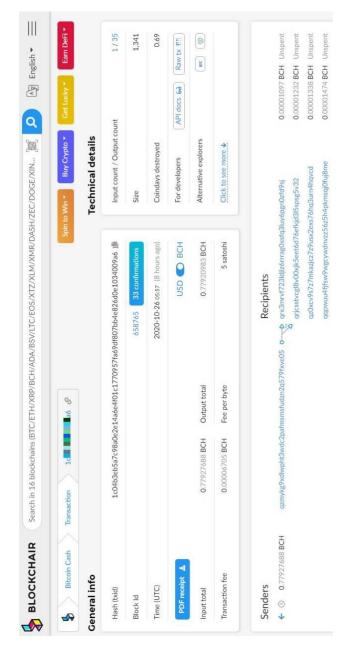


Figure 1. Information concerning the miner-reward transactions

In view of the price volatility of cryptocurrency and the fact that it has the value exclusively as the exchange means, the only method of its recognition is its accounting in terms of the revalued price [5]. However, point 85 of IAS 38 "Intangible assets" prohibits to recognize revaluation in terms of increase as a part of profit and loss, requiring form a company to recognize this increase as a part of other total income.

Virtual currency is a great amount of computational facilities and digital assets. At the current worldwide stage of technological development, cryptocurrency is gaining stable positions in the international market. Rapid development results in further increment of facilities and interest; however, finally it may cause the collapse. Nevertheless, if price stability of cryptocurrency is reached, then it will be possible to use cryptocurrency in various international transactions, not only for the speculative profit. However, that issue will be connected immediately with the legalization of new currency and its recognition by central banks as the means of exchange or conservation of money value. There is the need in further studies to understand the conditions of digital currency use in the payment markets.

References:

1. Rysin V., Rysin M., Fedyuk I. (2018) Legal status of cryptocurrency as a financial instrument. No. 11. DOI: 10.32702/2307-2105-2018.11.7.

2. Virtual Currency Schemes (2012) European Central Bank. URL: http://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemes201210en.pdf.

3. Brukhanskyi R.F., Spilnyk I.V. (2019) Crypto Assets in the System of Accounting and Reporting. *The Problems of Economy*, no. 2(40), pp. 145-156. DOI: https://doi.org/10.32983/2222-0712-2019-2-145-156.

4. Tarasova T., Usatenkob O., Makurin A., Ivanenko V., Cherchata A. (2020) Accounting and features of mathematical modeling of the system to forecast cryptocurrency exchange rate. *Accounting*, no. 6, pp. 357-364. DOI: 10.5267/ j.ac.2020.1.003.

5. Pashkevych M., Bondarenko L., Makurin A., Saukh I., Toporkova O. (2020) Blockchain technology as an organization of accounting and management in a modern enterprise. *International Journal of Management*, vol. 11, Is. 6, pp. 516-528. DOI: 10.34218/IJM.11.6.2020.045.