Abstract. Sponsorship of international terrorism and transnational criminal activity poses a significant threat to the financial system, and due to the rapid expansion of payment opportunities in the Internet, risks have increased significantly, which requires a study of foreign legal experience and the development of a law enforcement strategy to control the circulation of the cryptocurrency. The authors have come to the following conclusions. The use of cryptocurrencies is a promising way to maintain economic development by applying modern accounting and information technologies. International experience clearly demonstrates the importance and role of cryptocurrencies in the activities of transnational criminal groups relating to the financing of terrorism and human trafficking. In the context of globalisation and implementation of the European integration in Ukraine, the turnover of cryptocurrencies needs to be regulated at the legislative level. Thus, it is necessary to accelerate the approval of the Draft Law «On the turnover of cryptocurrency in Ukraine» No. 7183 as of 06 October 2017. It is advisable to introduce a system of registration (licensing) of crypto-currency exchange and exchangers at the national level. At the same time, it is necessary to impose an obligation on cryptoexchangers to collect information about customers. Also, it is necessary to regulate activities of companies that sell goods and services to customers for cryptocurrency, as it is accepted by PayPal, Braintree and other payment systems. Key terms: Electronic Money; Cryptocurrency; Virtual Currency; Bitcoin; Miners

JEL Classification: F30; K30; О10

DOI: https://doi.org/10.21003/ea.V168-14

Current trends, concerns and peculiarities of the turnover of cryptocurrency

1. The use of cryptocurrencies is a promising way to maintain economic development by applying modern accounting and information technologies. International experience clearly demonstrates the importance and role of cryptocurrencies in the activities of transnational criminal groups relating to the financing of terrorism and human trafficking. In the context of globalisation and implementation of the European integration in Ukraine, the turnover of cryptocurrencies needs to be regulated at the legislative level. Thus, it is necessary to accelerate the approval of the Draft Law «On the turnover of cryptocurrency in Ukraine» No. 7183 as of 06 October 2017. It is advisable to introduce a system of registration (licensing) of crypto-currency exchange and exchangers at the national level. At the same time, it is necessary to impose an obligation on cryptoexchangers to collect information about customers. Also, it is necessary to regulate activities of companies that sell goods and services to customers for cryptocurrency, as it is accepted by PayPal, Braintree and other payment systems.

2. In Ukraine, Bitcoin is actively used by large companies as a payment method. However, there is a need for regulation of the turnover of cryptocurrencies at the national level to ensure the transparency of transactions and prevent money laundering.

3. The Ukrainian government is actively working on the legalization of cryptocurrencies, but there are still many challenges and obstacles to overcome. The authorities are considering the introduction of a special tax on cryptocurrencies to ensure their proper use.

4. The use of cryptocurrencies in Ukraine is still limited, but there are signs of growing interest among the population. The government is considering the introduction of measures to promote the use of cryptocurrencies, such as tax breaks and subsidies for businesses using them.

Keywords: Electronic Money; Cryptocurrency; Virtual Currency; Bitcoin; Miners

JEL Classification: F30; K30; О10

DOI: https://doi.org/10.21003/ea.V168-14
A cryptocurrency (or virtual currency) is a digital resource intended for work as an exchange tool that uses cryptography to secure its transactions, control the creation of additional units, and test the transfer of assets [1]. The functioning of the system is decentralised in a distributed computer network [2].

An economic nature of cryptocurrencies is actively explored by scientists. Special attention should be paid to Matthew Ponsford’s article «Comparative analysis of Bitcoin and other decentralized virtual currencies: legal regulation in the People’s Republic of Korea, Canada and the United States» [3], in which the author considers diametrically opposed approaches to the circulation and regulation of cryptocurrencies. A group of Polish scholars conducted a study called «Fluctuations in prices and the use of Bitcoin», which clearly highlighted all the functionalities of the new form of money, their features and price formation [4].

1. Introduction

Current changes are leading to the emergence of new definitions in the 21st century. Financial systems of individual countries are being improved in the context of the development of IT technologies and the general computerisation of the economy. There appear new financial institutions, tools and forms of interaction between people. This has led to analog currencies, which is cryptocurrency. Today, there exist about 1,600 types of cryptocurrency (Bitcoin, Litecoin, Etherium, Peercoin), but the best known is Bitcoin due to its rapid development.

A cryptocurrency (or virtual currency) is a digital resource intended for work as an exchange tool that uses cryptography to secure its transactions, control the creation of additional units, and test the transfer of assets [1]. The functioning of the system is decentralised in a distributed computer network [2].

An economic nature of cryptocurrencies is actively explored by scientists. Special attention should be paid to Matthew Ponsford’s article «Comparative analysis of Bitcoin and other decentralized virtual currencies: legal regulation in the People’s Republic of Korea, Canada and the United States» [3], in which the author considers diametrically opposed approaches to the circulation and regulation of cryptocurrencies. A group of Polish scholars conducted a study called «Fluctuations in prices and the use of Bitcoin», which clearly highlighted all the functionalities of the new form of money, their features and price formation [4].

2. Brief Literature Review

The problems of circulation of cryptocurrencies were investigated by domestic scientists, in particular S. V. Vasilychenko, V. S. Gribenek, M. V. Shapochka, A. V. Koldovskiy, K. V. Chernega, E. Y. Molchanova, Y. M. Solodkovskyi and others. At the same time, the issues of economic analysis of the use of cryptocurrencies by criminal groups with the purpose of legalisation (laundering) of funds and other property obtained by criminal means, as well as the use of electronic payments in human trafficking and drug trafficking has not yet been sufficiently highlighted.

3. The purpose of the article is to disclose the economic essence of cryptocurrencies, to consider the legal foreign experience of the cryptocurrency turnover and to formulate theoretical provisions regarding the consideration of some issues of the use of cryptocurrencies by transnational criminal groups, using the example of Bitcoin to eliminate the corresponding negative consequences for Ukraine.
The German Ministry of Finance officially recognised Bitcoin as a financial instrument and made appropriate changes to the Banking Ode. As a result, Bitcoin is considered not as a ‘currency’, but as a ‘tradable commodity’. Estonia refuses to work with Bitcoin, so does the largest Scandinavian ‘SEB Bank’. In the USA, Bitcoin is seen as a means of payment in electronic commerce. In Vienna (Austria) the world’s first «Bitcoin bank» which specialises in the purchase and sale of the cryptocurrency was opened in Vienna (Austria). There are special ATMs that allow exchange of Bitcoin to the euro and vice versa in this bank. Japan has adopted a law according to which, from April 2017, Bitcoin and other cryptocurrencies have been considered as legal means of payment. In November 2017, the Office of Financial Control and Supervision in New Zealand equated operations with digital currencies to operations with the securities. In Australia, a law that regulates the activities of swap criminals has come into force.

Thus, cryptocurrencies have become a complete payment instrument and an investment asset in most countries of the world. The interest in using cryptocurrencies contributes to the investment attractiveness of payment infrastructures. However, Bitcoin and other digital currencies are adapted for use by organised criminal groups, since they are widely used in the international circulation and provide the necessary level of anonymity.

It is possible to define two main trends in using a cryptocurrency for criminal purposes: its use as an instrument of crime (use of virtual currency in the Darknet, so-called «dark» Internet as a monetary means in the purchase of weapons, drugs, legalisation of criminal incomes, etc., and consideration of a cryptocurrency as an object of criminal offences (embezzlement of cryptocurrencies from accounts, internet fraud, etc.).

The spread of virtual currencies favours the emergence of an increasing number of independent criminal entrepreneurs working on the principle of criminal provision of services, without any need to resort to complex criminal infrastructure.

A striking example of using a cryptocurrency as an instrument for committing crimes is the activity of illegal crypto-markets. The analytical report of Europol as of 30 September 2015 known as «Evaluation of the threat of organised Internet crime» reviews the activity of Silk Road, Silk Road 2.0, Evolution, etc., with the annual income of each exceeding USD 20 million. The Report also notes that currently the daily turnover of markets using virtual currency is from USD 300,000 to USD 500,000.

As an example, we can cite the operation of law enforcement bodies that use cryptocurrencies in the criminal activities of the organisation «Operation Shrouded Horizon». The investigation led by the US authorities united 20 countries, including Australia, Canada, Cyprus, Nigeria and the United Kingdom, and led to the arrest of 300 people. With the Tor network, criminals created a Darkode forum, popular among people interested in sale, purchase and exchange of malware, botnets, identify thefts, bank card numbers, information from hacked servers and other data. Soon after the series of arrests, Darkode started again using the so-called «Blockchain» to confirm the identity of participants and the virtual currency for calculations, which made it much more difficult to identify and investigate crimes.

In August 2017, the Security Service of Ukraine jointly with the National Police of Ukraine conducted a special operation, according to which 200 computers generating Bitcoin and violating the current legislation were discovered on the territory of the recreation complex of the Paton Electric Welding Institute of the National Academy of Sciences of Ukraine. The cryptocurrency was used as means of payment through exchange transactions for electronic money of an official payment system [15].

Issues relating the circulation of cryptocurrencies in Ukraine have been repeatedly raised at the national level. On 10 November 2014, on the website of the National Bank of Ukraine (NBU) there appeared an explanation concerning the legality of using the virtual currency/cryptocurrency Bitcoin in Ukraine [14]. Thus, according to the NBU’s definition, the virtual currency Bitcoin is not considered as money that is not provided with real value and cannot be used by individuals and legal entities on the territory of Ukraine as a means of payment, as this contradicts the norms of Ukrainian legislation.

According to the results of the meeting of the High Council of Experts under the NBU Council in October 2017, it was emphasised that the state bodies with the state control and regulation of financial markets have not yet decided on the framework for the functioning of the cryptocurrency market [15]. As a result, recommendations were formulated to minimise potential risks relating to a possible decrease in confidence in the national monetary unit, which is the only legal means of payment in Ukraine and the probability of using currency/cryptocurrency in the shadow economy.

Lukianchuk, R., Grebienik, M., & Cherniak, A. / Economic Annals-XII (2017), 168(11-12), 69-72
MONEY, FINANCE AND CREDIT

Given the relevance of this issue in our country, a Draft Law «On the Turnover of Cryptocurrencies in Ukraine» No. 7183 as of 06 October 2017 [16], which legalises bitcoin and creates a legal framework for its circulation as an official means of payment, was prepared. The Draft Law defines the conditions under which cryptocurrencies cannot be used, particularly in the case of its application against national security, incitement to overthrow the constitutional order, violation of territorial integrity of Ukraine, acts of terrorism, terrorism financing, money laundering, distribution of narcotic drugs and psychotropic substances, and other illegal acts.

5. Conclusions

1. The use of cryptocurrencies is a promising way to maintain economic development by applying modern accounting and information technologies. A specific feature of the circulation of Bitcoin is the absence of intermediaries (third parties): users interact directly with each other, which guarantees investors a phenomenal increase in profits. However, there exist challenges relating to criminal regulations regarding cryptocurrency transactions due to their scale.

2. International experience clearly demonstrates the importance and role of cryptocurrencies in the activities of transnational criminal groups relating to the financing of terrorism and human trafficking. Virtual currencies can be sold on the Internet anonymously, without any inking to a particular bank or financial institution while conducting transactions.

3. In the context of globalisation and implementation of the European integration in Ukraine, the turnover of cryptocurrencies needs to be regulated at the legislative level. Thus, it is necessary to accelerate the approval of the Draft Law «On the turnover of cryptocurrency in Ukraine» No. 7183 as of 06 October 2017.

4. In Ukraine, miners are actively using cryptocurrency as a means of payment. They carry out exchange transactions on electronic money of official payment systems, and then the so-called currency is converted and transferred to bank accounts of enterprises with attributes of fictitiousness. Further, this currency is converted to card accounts, becoming cash, which is a shadow scheme used similarly to conversion centers. After detecting criminal miners, law enforcement agencies mostly accuse them of illegal connecting to electricity grids, false entrepreneurship and tax evasion. Under such circumstances, it is necessary to develop a strategy of joint law enforcement activities to ensure control over the turnover of cryptocurrencies, which will strengthen special security forces in their fight against money laundering, human trafficking and terrorist financing.

5. To effectively counter the criminal turnover of cryptocurrencies, the international community must develop a unified strategy implemented in the following key areas:

- determination of the legal nature of cryptocurrency;
- establishment of universal jurisdiction of states with regard to criminals carrying out money laundering, terrorism financing, trafficking in drugs and weapons by using cryptocurrency;
- creation of a register of audits that are mandatory for dealing with financial flows from countries with ineffective regimes to combat money laundering and terrorism financing;
- extension of information available to financial intelligence units by providing them with simplified access to information about committed actions.

6. It is advisable to introduce a system of registration (licensing) of cryptocurrency exchange and exchangers at the national level. At the same time, it is necessary to impose an obligation on cryptocurrency exchangers to collect information about customers. Also, it is necessary to regulate activities of companies that sell goods and services to customers for cryptocurrency, as it is accepted by PayPal, Braintree and other payment systems, etc.

References

1. Chohan, U. (2017). Cryptocurrencies: A Brief Thematic Review. Social Science Research Network Electronic Journal. doi: https://doi.org/10.2139/ssrn.3023630

2. PaySyst.ru (2013). Cryptocurrencies as peer-to-peer systems and means of payment. Retrieved from http://paysyst.ru/crypto-payment-system.html (in Russ)

3. Ponsford, M. (2015). A Comparative Analysis of Bitcoin and Other Decentralised Virtual Currencies: Legal Regulation in the People’s Republic of China, Canada and the United States. Hong Kong Journal of Legal Studies, 9. doi: https://doi.org/10.2139/ssrn.2554186

4. Polaski, M., Piotrowska, A., Wasielowski, T. P., Kotkowski, R., & Lightfoot, G. (2014). Price Fluctuations and the Use of Bitcoin: An Empirical Inquiry. International Journal of Electronic Commerce 2011, 11-48. doi: https://doi.org/10.2139/ssrn.2516754

5. Nakamoto, S. (2009). Bitcoin: A Peer-to-Peer Electronic Cash System. Retrieved from https://bitcoin.org/bitcoin.pdf

6. FATF Recommendations (2015). Virtual currency. Retrieved from http://www.sdfm.gov.ua/content/fileSite_docs/2016/20160805/erek2.doc (in Ukr).

7. Kihara, T. (2017). Bitcoin Hard Fork August 1st – What Is Happening, Latest Development That Investors Should Know. Ethereum World News. Retrieved from http://ethereumworldnews.com/bitcoin-hard-fork-august-1st-happening-latest-development-investors-know

8. Kariström, H. (2014). Do libertarians dream of electric coins? The material embeddedness of Bitcoin. Distinktion: Scandinavian Journal of Social Theory. 15(1), 23-36. doi: https://doi.org/10.1080/1600910X.2013.870083

9. Kokott (2015, July 1). Opinion of Advocate General Kokott. Case C-264/14 Skatteverket v David Hedqvist. Digital reports (Court Reports - general). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A62014CC0264

10. Royal United Services Institute for Defence and Security Studies (RUSI) (2017). Official web-site. Retrieved from https://rusi.org

11. HM Treasury (2017). National risk assessment of money laundering and terrorist financing 2017. NFA. Policy paper. London. Retrieved from https://www.gov.uk/government/publications/national-risk-assessment-of-money-laundering-and-terrorist-financing-2017

12. Ponsford (2015). A Comparative Analysis of Bitcoin and Other Decentralised Virtual Currencies: Legal Regulation in the People’s Republic of China, Canada and the United States. Hong Kong Journal of Legal Studies, 9. doi: https://doi.org/10.2139/ssrn.2554186

13. Glavcom (2017). An illegal Bitcoin factory found at the Paton Institute. Retrieved from https://glavcom.ua/news/v-instituti-patona-vyavili-nezakonnuy-fabrik-bitcoin-430455.html (in Ukr)

14. National Bank of Ukraine (2014). Clarification of the National Bank of Ukraine regarding the lawful use of Bitcoin virtual currency. Retrieved from https://www.bank.gov.ua/control/ukr/publish/article?art_id=1187968 (in Ukr)

15. National Bank of Ukraine (2017). The High Council of Experts urged regulators of the financial market to determine the legal status of cryptocurrency in Ukraine. Retrieved from https://bank.gov.ua/control/ukr/publish/article?art_id=57795435 (in Ukr)

16. Verkhovna Rada of Ukraine (2017). Draft Law «On the turnover of cryptocurrency in Ukraine» No. 7183 as of 06.10.2017. Retrieved from http://ver.1.c1.rada.gov.ua/pls/zweb2/webproc4_1?pf3511=62684 (in Ukr)

Received 11.11.2017

Join THE ECONOMIC ANNALS-XXI page on Facebook

Enter https://www.facebook.com, type in a search field «Economic Annals-XXI», go to our official page and press «Like»!