Stablecoin as a New Financial Instrument

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Abstract. The author considers the legal and economic nature of stablecoin, the development stages of low-volatility assets, describes the existing models of their implementation in the public and private sectors. Particular attention is paid to the assessment of legal risks of mono-secured and multi-secured cryptocurrency on the example of projects in Venezuela and Russia, as well as the possibility of using stablecoin for the development of the financial system and evasion from economic sanctions.

Keywords: Cryptocurrency · Sanctions · Assets · Stablecoin · Finance · State policy · Legal risks

1 Introduction

The rapid development of digital technologies puts the world economy in front of the need to build a qualitatively new model of financial relations on the principles of universal trust and transparency. It was expected that the role of the driver of digitalization of the financial system will be taken by cryptocurrency created on the basis of distributed ledger technology (blockchain). The very architecture of the blockchain provides the ability to verify cryptocurrency transactions without any help of third parties all the time (24/7), which makes the cryptocurrency as convenient as possible for transnational exchange operations. But despite its undeniable technological advantages, it remains unattractive for large investors and business owners because of high volatility and vulnerability for the impact of information and political factors [3].

It is the high volatility of cryptocurrency that has brought to life the stablecoins as a tool for hedging risks of decentralized coins. Stablecoin was originally conceived as a tool to minimize risks of investors in the turnover of digital assets without withdrawing funds to a bank fiat account. As the volatility of cryptocurrency increased, so did the market's need for a "safe haven". According to the research conducted by the Center for Digital Economy and Financial Innovation of MGIMO (Moscow State University of International Relations), there is a stable inverse connection between the turnover of digital money and stablecoin, which indicates a trend of crypto-currency market strengthening by transferring funds into low-volatile digital assets.

The stability of the stablecoin exchange rate excludes its investment attractiveness, but, at the same time, it allows us to consider it as a potential means of payment, saving and exchange of assets, as well as a tool for evasion from economic restrictions and sanctions. Due to its last mentioned capacity, it is becoming increasingly attractive to

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countries under economic sanctions of the United States and Europe. Many of these countries, including the Russian Federation, are starting to develop projects for the introduction of stablecoin, backed by the national currency, oil, gas, ore or rare earth metals (projects El Petro (Venezuela), Norilsk Nickel (Russia), etc.). In addition, in countries with strict sanctions regimes, ideas are being developed to attract financing for mining operations. But so far, no major mining company has started to produce stablecoin, backed by the warehouse and (or) the supply of a real asset, as well as not a single working platform for the production and exchange of stablecoins has been appeared.

Market demand for turnover of low-volatility digital assets has already led to a significant jump in the stablecoin economy. By June 2019, their total capitalization was about 3.5 billion U.S. dollars [11], and their share in the total cryptocurrency market was 2.7% [12].

The dynamics of the main (index) stablecoin also attracts attention. Tether increased its capitalization to $ 2.5 billion (since 2016), USD Coin – up to $ 260 million (since 2018), Dai – to $ 84 million (from 2018). To date, 3 432 130 225 USDT (tether coins), 83 579 195 DAI (Dai coins), 343 652 881 USDC (USD Coin), 175 852 162 PAX (Paxos Standard Token), 20 631 088 GUSD (Gemini Dollar), 31 979 207 EURS (STASIS EURS), etc. have been issued.

It is impossible to ignore the issue of Venezuela's own cryptocurrency (stablecoin) El Petro. Its price corresponds to the price of a barrel of oil set by OPEC for the previous day of the end of trading. The price is calculated from the average price of the OPEC basket, namely 15 different types of crude oil produced in OPEC member countries. The Venezuelan government has described its plans to use El Petro at the official website elpetro.gov.vz [8]. And despite the presence of some contradictions in the assessment of the legal nature of this tool, El Petro is already considered by the authorities as an effective means for avoiding sanctions, exchange and saving funds.

It is important to pay attention to the position of the Central Bank of the Russian Federation, which officially announced that it is considering the possibility of launching a digital currency on the basis of mature technologies and under the condition of the reliability and continuity of payments [1]. However, despite the market demand in the development of stablecoin, neither at the practical nor at the theoretical level there is no developed unified approach to the definition of the concept and features of stablecoin, assessment of its advantages and risks.

In modern economic and legal literature, these issues are partially solved, but only in the applied way in relation to clearly defined research tasks. Among these works are reports of the Bank for International Settlements "Processing with caution – a survey on central bank digital currency" [2], "Stable coins: From electronic money on blockchain to a cryptocurrency basket" [5], "The State of Stablecoins 2019. Hype vs. Reality in the Race for Stable, Global, Digital Money" [14], "2019 State of Stablecoin" [3] and others, as well as works by Sat, Krylov, Bezverbnyi, Kasatkin, and Kornev [15], Böhme, Christin, Edelman, and Moore [4], Coeuré and Loh [6], Ivantsov, Sidorenko, Spasennikov, Berezkin, and Sukhodolov [9], Dyson and Hodgson [7], Pernice, Henningsen, Proskalovich, Florian, Elendner, and Scheuermann [13], etc. However, these works do not fully address the most important issues for practice, and

that is why this study is aimed at analyzing the nature of the stablecoin and "weaknesses" of its implementation practices.

2 Methodology

While carrying out this study, general scientific methods of assessing complex economic and legal phenomena were widely used: analysis, synthesis, abstraction, logical and systemic methods. Special legal methods (formal-legal, comparative-legal, historical-legal methods and method of legal modeling) and sociological methods (content analysis, generalization of practice, statistical method, etc.) were applied. This paper is the first to publish the results of the work of the Center for Digital Economy and Financial Innovation of MGIMO University to study the phenomenon of stablecoin and search for the most effective model of its implementation.

3 Results

The main distinctive features of stablecoin are its low volatility and security of assets with stable pricing. However, this, at first glance, this statement is questioned when referring to the practice of its implementation. There are two main models for ensuring low volatility of stablecoin:

(1) natural mechanism: direct reference of the price to the asset unit having a stable value. In this case, the volatility of stablecoin is directly determined by the stability of the price of the underlying asset (national currency, gold, oil, etc.). According to the research of MGIMO University, more than 95% of all developed stablecoins have a natural mechanism of implementation. 35% of them are based on the provision of coins with money (fiat stablecoins), 55% – on the provision with goods (commodity stablecoins) and 10% – on the provision with the commodity-money basket. Each of the proposed models has its advantages and disadvantages and can be implemented in specific industries and for specific purposes;

(2) artificial mechanism: management of pricing in the market using complex mechanisms to stimulate demand and supply, increase or decrease in currency issue, repayment and redemption of assets. Developers use the method of stock seigniorage. Through the introduction of special smart contracts, they can manage the currency issue, stimulate demand and supply depending on the value of the coin in a specific period. Currently, this method of coins stabilizing is rarely used (only in pilot projects) because of the instability of the crypto-currency market and the lack of algorithms for its control (projects Saga, Basis, Basecoin, etc.).

But independent from the model of price stability, one thing is obvious: the price and volume of coins in circulation is directly determined by the creator – issuer. On the one hand, it gives him unlimited control over the financial asset, on the other, it imposes on him the entire burden of responsibility.

Speaking about the economic advantages and legal risks of stablecoin, it is important to emphasize the significant differences between the following two

types of assets: (1) mono-secured stablecoins – assets backed by one low-volatility asset. Depending on the nature of the asset, they are fiat-backed stablecoins (backed by a state currency) and tradeable stablecoins (backed by commodities: ore, oil, gas, etc.) [8]; (2) multi-secured stablecoins are backed by a basket of low-volatility assets.

Mono-secured stablecoins:
These assets are primarily of a centralized nature and generally linked to national currencies or raw materials.

There are two main models mono-secured stablecoins:

(1) model of settlement digital units (Bank Settlement Strategy);
(2) commodity option model (Anti-sanction Strategy).

The bank settlement strategy is based on the circulation of coins backed by the national currency and is considered by the central banks as a pilot model of digitalization of payments in the conditions of cash turnover reduction. Previously all non-cash payments existed mainly within the framework of the transactions of legal entities (B2B transactions), now they are beginning to penetrate into the sphere of relations of individuals (P2P transactions). In this regard, the regulators of the countries are interested in creating a digital model that would allow, firstly, to meet the needs of the market in non-cash and cryptocurrency P2P payments, secondly, to strengthen transmission processes in the monetary policy, and thirdly, to ensure the safety of this process.

Nowadays, two concepts of settlement digital units are considered [4, 6, 8]:

– retail stablecoins – assets available to a wide range of users;
– wholesale stablecoins – assets available to a limited circle of users, mainly participants of the organized auctions.

If the first type of assets is characterized by the presence of a bank account, the second – by the availability of reserves in the central bank. If in the first case the token is free in circulation and is considered as a low-volatility cryptocurrency, in the second case it is characterized as a requirement for the central bank expressed in the digital form.

The place of these tokens in the modern two-tier financial system is not the same: the first token covers the lower user layer of relations, while the second one does not go beyond the transactions s between financial institutions (correspondent accounts and deposits). In the case of retail tokens, the central bank liabilities can become a liquid asset, and the prevalence of calculations will lead to a reduction in transaction costs [9] and an increase in the transmission mechanism of the monetary policy [10]. The introduction of the second token can give a certain margin of safety to interbank interaction, ensuring transparency and reliability of transactions. However, independent from the design chosen as a basis for development of stablecoins, one thing is clear: each of the scenarios will face a number of legal risks and limitations. If the retail scenario is implemented, the following legal tasks will arise:

(1) differentiation of regulatory regimes of stablecoin and electronic money;
(2) bringing legislation in the field of financial, tax and currency control, banking and civil legislation in correspondence with changes in the architecture of calculations;
(3) validation of settlement transactions, changes in the accounting system;
(4) improvement of the anti-money laundering legislation and legislation on combating terrorist financing in terms of user identification, licensing (certification) of payment operators and other market participants.

Implementation of the wholesale scenario will cause no less legal problems. In this case, there will inevitably be difficulties associated with reformatting the legislation on securities and organized trading, the approach to payment operators will be radically changed, the regime of regulation of banking and exchange activities will require significant adjustments. Thus, taking into account the identified risks, it is hardly possible to talk about the operational implementation of one of the above mentioned designs of the stablecoin. The second model of mono-secured stablecoins (commodity option model/anti-sanction strategy) can hardly be considered as indisputable too.

The first country which has launched such a project was Venezuela. The government of the country repeatedly pointed out in its statements that the state coin El Petro is not a currency, but an asset regulated under the civil law. Thus, it tried to solve the dilemma between the functionality of the new currency and the interdiction of the Central Bank of Venezuela on the issue of cash surrogates.

Calling El Petro "a digital contract for the purchase and sale of oil" ("contrato digital decompra venta"), the state simultaneously creates an infrastructure for its widespread use and circumvention of sanctions. But this does not bring the expected results largely because of the controversial nature of this asset.

On the one hand, the state binds it to the low-volatile currency of OPEC, but on the other hand, it does not actually provide it with real oil reserves (undeveloped mining is not taken into account). On the one hand, the government sees in stablecoin the possibility of overcoming the economic crisis and the growth of investment attractiveness, on the other hand, it offers investors a low-volatility asset, burdened by the economic and political crisis in the country.

Finally, the legal nature of El Petro is not clear. On the one hand, it is close to government bonds in terms of its support by the state, on the other hand, it is an option contract for the development of oil fields of Ayacucho in the Orinoco Petroleum Belt.

The only indisputable advantage of this currency is that due to the lack of international regulation of cryptocurrencies, it is legally difficult to impose sanctions on El Petro, because such a currency is not associated with traditional views of financial transactions and commodity exchange.

Without denying the possibility of developing this project in the future, it is important to note that a positive result can be possible only if a single strategy will be developed on a number of issues: the specification of the nature of El Petro as a legal category, the study of the economic advantages of stablecoin for potential investors, the preservation of advantages of the asset as a settlement tool and the expansion of international cooperation with other oil exporting countries to push the El Petro into the system of international exchange. Only in this case this asset can become attractive for investors who want to hedge their risks in the fuel market.

The similar in its focus project (for evasion from of sanctions) was proposed by the largest Russian company – JSC Mining and Metallurgical Company "Norilsk Nickel". It offers to release stablecoin, backed by palladium. It is assumed that this asset will be sold on a special exchange platform. Users can be both individuals and legal entities. They can acquire, dispose of and change stablecoins for fiat money and cryptocurrency, and also exchange them for a real asset.

While supporting the company's desire to develop the infrastructure of the digital market and circumvent sanctions, it is important to note a number of legal and economic risks of this project implementation:

1. Like El Petro, stablecoin of MMC "Norilsk Nickel" (hereinafter – MMC NN) is aimed at attracting investors, which in itself does fundamentally differ from the idea of stablecoin as a low-volatility asset.
2. The exchange platform organized within the framework of this project is controlled by the issuer (MMC NN), which means that, firstly, the rate of stablecoin can be controlled, and secondly, the risks of the project are directly tied to the risks of the issuer.
3. The marketing component of the project is not clear. In particular, it is unclear what motivation should guide an investor participating in MMC NN project except for risk hedging. But in this case, it is not clear on the basis of what funds the token exchange platform will operate. Obviously, the commission received from the conversion will be distributed between the platform and the issuer. But how ordinary participants of the process will be stimulated? Is also relates to capacity producers for transactions (miners).
4. The trick of this project is that other tokens – coins for operations on the platform – will be included in the created ecosystem. In the end, they will overtake the stablecoin of MMC NN due to their turnover capacity. Stablecoins will become a kind of asset of the platform, while operational tokens will replace them in the transactions. Such a scenario is most likely, but then it is unclear whether the MMC NN project can be considered as a stablecoin project.
5. The question of how the exchange of cryptocurrency for palladium will be carried out also needs further scientific development. The fact is that in many countries, the circulation of rare earth metals is limited, and individuals may be criminally liable for its turnover.
6. The issue of user identification also needs further elaboration too. The company is interested in the wide use of these coins by the population of different countries, but the similarity of their status with derivatives requires the organizers to reflect the data on buyers in special registers as fully as possible. This, in turn, significantly limits the turnover of MMC NN stablecoins.

In general, without denying the importance of the development of the stablecoin sanctions scenario, it is important to take into account all possible legal risks as fully as possible. These are the reliability of the guarantor and the availability of the necessary security assets, the conflict of regulatory regimes of stablecoins, derivatives, cryptocurrencies and securities, the close relationship between the fate of the project and the bankruptcy of the issuer, external audit of the guarantor and conflict with the internal compliance procedures of the issuer, etc.

Multi-secured stablecoins:
Such projects are just beginning to develop, but it is already clear that they cannot be fully implemented on the basis of a market with a weak infrastructure. The economic advantages of this scenario are the expansion of the number of active participants in the crypto economy, the search for new sustainable forms of financial relations, the development of transnational contacts with further access to the creation of interstate settlement units, backed by the assets of ecosystem participants. But at the same time, the legal risks of implementing such projects are also obvious:

(1) high level of volatility of the assets providing stablecoin;
(2) the legal complexity of the design and production of coins;
(3) technical difficulties in creating and maintaining smart contracts;
(4) vulnerability to hacker attacks;
(5) the complexity of the procedure for assessing the reliability of stablecoin: verifiability of reserves, transparency of the code, the stability of relations between the platform, the custodian bank and issuers, the speed of transactions and the ability of the coin to restore prices after the collapse.

4 Discussion

Currently, there are various estimates of the further development of stablecoins. As A. Kiselev notes, "the introduction of (these) assets can have wide consequences for all participants of the monetary system… Their useful properties and possible risks depend on the system design (who and in what conditions has access to the currency) and the fact whether the currency has security and what is the exchange method for other types of money and so on" [10].

Among the key criteria that allow to predict the development of the project, the following ones should be mentioned: the goal (the launch of the payment system, the increase in exports bypassing sanctions, etc.), the degree of centralization (decentralization) of stablecoin, the expected turnover and jurisdiction of the country, the infrastructure availability of stablecoin by exchangers, etc.

At the same time, it is important to take into account such factors as the possible saturation of the market with stable assets. Some indirect facts already show the limitations of the market. In particular, the decrease in the market share of Tether in 2018 led to the growth of Paxos Standard and USD Coin, which means that the cryptocurrency environment already fixes the competition of assets close in nature.

A significant impetus to the development of the market of stablecoins can be the fixation of their legal status. If the Cases of the United States against Faiella [17] and Murgio [16], bitcoins traders were brought to criminal liability, regarding stablecoins this question remains open, as well as the question of whether the issuers of stablecoins have responsibility for their illegal manipulation.

According to the latest analytical reports [1], in the long term, stablecoins can become the basis of the ecosystem of digital assets, if the necessary infrastructure and legal conditions are created for them. It is expected that one of the most popular

application areas will be the use of these assets in smart contracts, in the system of taxation and interbank cooperation.

5 Conclusion

The market demand for low-volatility digital instruments of risk hedging leads to the creation of a fundamentally new philosophy of relations between the parties of financial relations – the concept of stablecoins. A distinctive feature of these assets is their low volatility. However, depending on the participants of the ecosystem, the strategic plans of developers and the nature of the assets lying in the provision, it is possible to identify several possible programs for the development of stablecoins both within one country and the world as a whole. However, whatever the proposed concept is, it is a priori fraught with a number of serious legal obstacles because of the weak adaptability of the law to new digital trends.

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