

**PRACTICAL APPLICATION OF THE THEORY OF PRIVATE
MONEY IN THE CRYPTOCURRENCY MARKET**Evdokimov Ilya A¹Frolov Nikita I²Lysanov Denis M³Karamyshev Anton N⁴Isavnin Aleksey G.⁵

Abstract: The article considers the main aspects of the theory of F.A. von Hayek. The effectiveness of competition has been proved as a way to select the best currencies, which are characterized by high liquidity, transparent emission, and active work in the information space. And also in this article, the power of the influence of the press factor on the theory of Private Money by F. A. von Hayek is considered. The effectiveness of this factor, which acts as a filter of a low-quality product, allowing market participants to filter out unreliable currencies, has been proved.

Keywords: market, competition, currency, cryptocurrency, press.

1. Introduction

The work "Private Money" was published by Nobel Prize winner in economics Friedrich August von Hayek in 1976. The main idea of this work is reduced to the following theses [1]:

- liquidation of the monopoly of the government on the issue of funds;
- liberalization of the issue of private funds;
- equating cash to a typical commercial product;
- the creation of a better private currency through equal competition with other cash [1].

At the time this work was published, it was widely believed that only one money should be used within

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the state, which was in no way questioned.

And also the fact that the state monopoly on the issue of currency is a natural right of the government. This opinion has long been firmly rooted in the minds of the vast majority of members of the world's society. Which, in turn, did not allow the theory to be applied in practice, since the thoughts expressed in it seemed unrealistic [1].

But thanks to the development of high technologies, and subsequently cryptography, in 2009 the first cryptocurrency in the world was developed - "Bitcoin". The development of this technology did not stand still. With each update, this cryptocurrency received qualitative improvements in its technical characteristics and this made it possible to popularize this technology, which gradually led to an investigation that gave rise to a tendency for the emergence of many other various cryptocurrencies, both decentralized and private. The gradually increasing number of cryptocurrencies has generated fierce competition for investment. Thus, considering a private cryptocurrency, we can in practice confirm or refute the theory of F. A. von Hayek [1].

2. Methods

The cryptocurrencies considered in this article were initially formed as currencies completely free from any kind of regulation. To achieve such characteristics, the basis of most cryptocurrencies is laid such a parameter as decentralization. Peer-to-peer network allows you to achieve such conditions where any of the network members has completely equal rights in relation to other participants, and vice versa. This network does not initially provide for the presence of "arbitrators" with privileges in relation to other participants, which allow blocking accounts or influencing transactions between network participants in any other way inherent to traditional currencies. This is one of the main aspects of the theory of F. A. von Hayek, namely the lack of currency control and regulation of cash flows between countries, which in itself is a key feature of cryptocurrencies and their main ideology [1, 4, 5, 6].

The considered instrument of monetary exchange also satisfies such an important parameter of the theory under consideration, as the equal treatment of currencies, being an important factor

underlying the theory. In the event that the state cannot legislatively influence any issuer of private funds in such a way that this government intervention will have a positive or negative impact on the competition of private currencies, then the determined economic environment will positively affect competition between private currencies. It is due to free competition, and not state regulation, that F.A. von Hayek proposes to establish the worst currencies whose value is unstable, or whose emission the issuer abuses, and also to determine the best currencies whose value remains unchanged over time. Here, the state cannot influence issuers of private funds by providing any advantages for specific currencies in the conditions of free competition prevailing in the modern cryptocurrency market [1, 4, 5, 6].

It is the fact that for the most part cryptocurrencies are a decentralized, peer-to-peer network, where all participants in the process are equal participants, where there are no network administrators who are able for some reason to block either the network member's account or his money, and it was a consequence of the fact that cryptocurrencies received widespread

support of society in the world [1, 4, 5, 6].

In turn, one of the fundamental factors in maintaining the value of a currency and its competitiveness is the press. F.A. von Hayek assigns the press the role of a supervisor or, in a word, an "arbiter" who closely monitors every step of the issuers and identifies their suspicious actions, preventing them from destabilizing their currency. This allows the "consumer" to form their own opinion about the reliability of a particular issuer of private currency for subsequent investment. Thousands of different information resources around the world daily publish news reports that can have a strong impact on the capitalization of cryptocurrencies, which should force the issuer to actively participate in the public sphere, introduce new achievements in technical terms and most importantly, tightly control currency emissions in order to. There was no reason for the press to doubt the purity of a particular issuer.

After all, nothing can be worse for a business than news bulletins that tarnish their currency [1, 4, 5, 9].

F.A. von Hayek claims that the most popular will be those currencies that retain their value for a long period of

time, or, in other words, are stable. Most cryptocurrencies are a kind of stock of companies. Where their price depends on parameters such as technology excellence and overall popularity. But there are other types of virtual monetary units, which in our case are optimal for consideration - stablecoins. The purpose of these currencies is to maintain

purchasing power at the same level in an infinite period of time [1, 4, 5, 10].

Next, consider the most popular stablecoin to date - Tether (USDT).

3. Result And Discussion

In the chart below, we can observe fluctuations in the price of the Tether cryptocurrency [3].

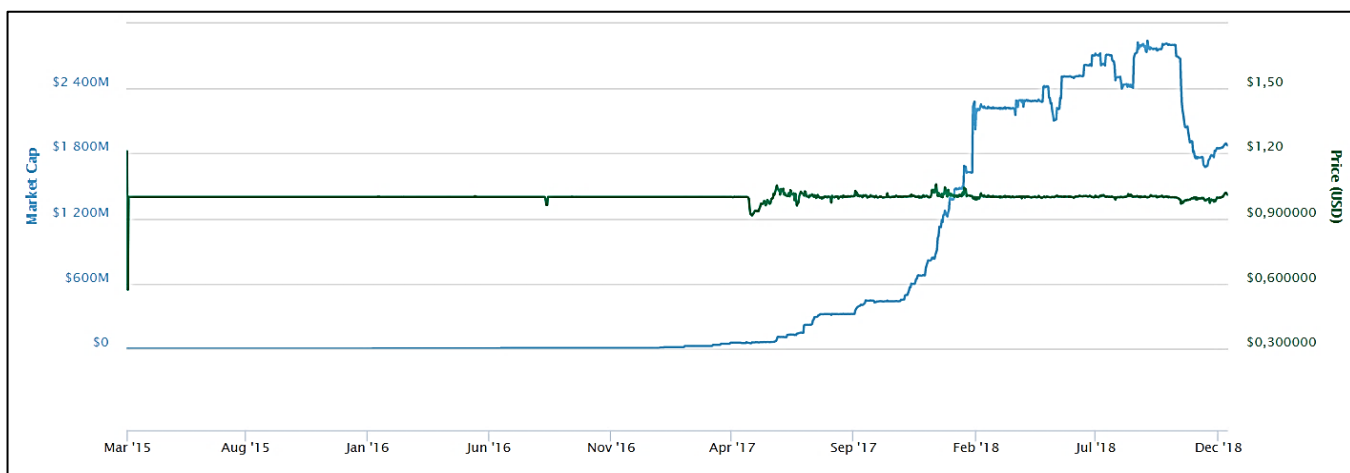


Figure 1 - Graph of Tether price fluctuations for the period from March 2015 to December 2018

According to the theory of F.A. von Hayek, the main factor in the popularity of private currency among the public is its ability to keep the declared value of the currency at the same level. For example, the contents of a consumer basket for an unchanged number of units of conditional currency should not be adjusted over time. In our case, the conditional “consumer basket” is the US dollar. Tether has committed to keep the

value of its currency at 1 USDT = 1 USD [1].

In Figure 1, we can see that for more than 3 years Tether has demonstrated the ability to hold the declared value of its currency. Moreover, the 24-hour trading volume of this currency is more than 160% higher than its market capitalization, which makes it extremely effective in the most important parameter for any currency -

liquidity. The high efficiency of the currency in question contrasts even more with other cryptocurrencies, whose 24-hour trading volume on average does not exceed 15% of their capitalization. Here we can observe the influence of the press [3], in April 2017, it was able to knock cryptocurrency out of action for several

months by publishing information about the termination of cooperation between Tether and Taiwanese banks. The exchange rate is maintained due to controlled emission; currently only 70% of the total issued USDT is used, the rest of the currency is “burned” to maintain the exchange rate [1, 2, 4, 7, 8].

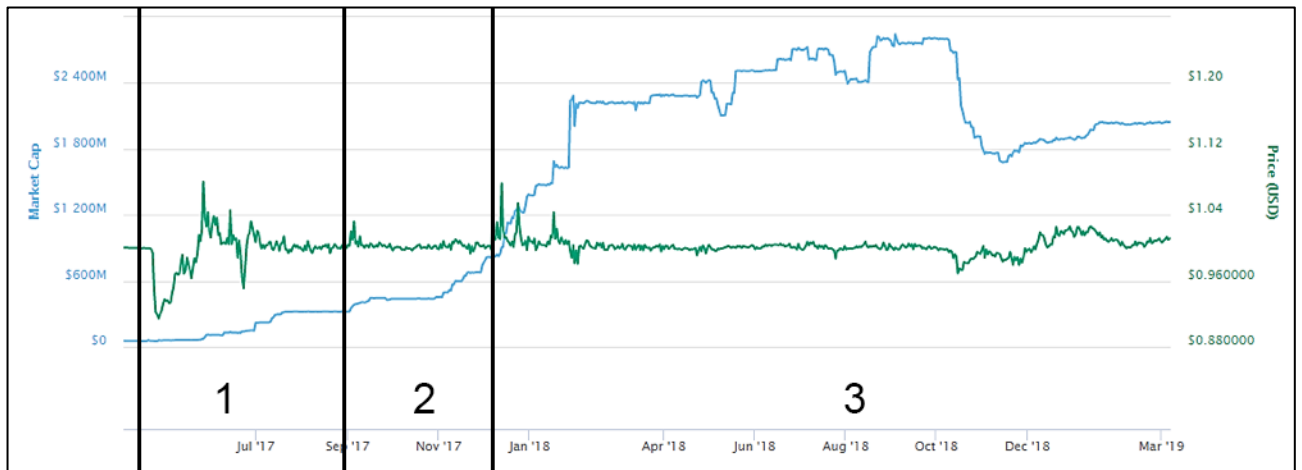


Figure 2 - Graph of Tether price fluctuations for the period from July 2017 to March 2019

The graph shows (1) how in April the cryptocurrency rate fell to \$ 0.89 after the announcement of iFinex Inc. (operator of the Bitfinex exchange) and Tether Ltd on the unilateral termination of cooperation on the part of the American bank Wells Fargo. At the same time, Bitfinex announces the suspension of operations with fiat currencies [3].

Despite the fact that by mid-May parity against the US dollar was restored (operations with fiat currencies were resumed). The situation around Tether and Bitfinex interested a number of media. In particular, the price of Bitcoin (BTC) on the Bitfinex exchange was approximately 10% higher compared to other popular sites.

This situation reminded the community of the bankruptcy of the Mt

Gox exchange, where the BTC price stood out similarly to its competitors. Individual users, and subsequently the media, began to question the availability of Tether with a sufficient amount of US dollars to cover all issued USDT. From that moment, thanks to negative rumors, the unstable mood of various users and the media aggregating this information, the Tether exchange rate was no longer in perfect parity with the US dollar, and the company itself was forced to protect its reputation in the public space [3].

New rumors, which appeared in the fall of 2017, testified to the involvement of Tether in the registration of fictitious companies for the subsequent opening of bank accounts on them. This situation, coupled with the fact that according to media reports from April Tether issued 170 million units of the new currency, made us think about fraudulent transactions of Tether and Bitfinex, which undoubtedly denigrated the company, and made it issue a public statement about the company's prosperity, as well as the results of the company's audit. This case also led to a price jump on the chart (2) [3].

In early December 2017, Tether went to court with a charge of “doubtful individuals” of spreading false rumors.

At the same time, the company representative had to admit part of the rumors about the dubious connection between Tether and Bitfinex, thanks to the “paradise documents” - an array of materials presented to the public in November 2017 regarding the activities of offshore companies. The New York Times refers to the same documents in its article on the relationship between Tether and Bitfinex. Bitfinex was announced to expand the list of partner bank, but nevertheless, there was no direct answer to public criticism about manipulating the price of bitcoin. At the same time, the exchange announces cooperation with the law firm Steptoe & Johnson to protect the interests of the company from accusations from various media about the financial frauds of the company, which Bitfinex considers false. A large number of rumors, the refusal of companies to disclose the organizational structure, generated strong unrest on the price chart [3].

In less than a month, the pressure on companies in public space intensified: Nuriel Roubini accused Tether of manipulating bitcoin; CNBC cited Tether as one of the possible reasons for the cryptocurrency market

crash; Tether itself ceased cooperation with the audit firm Friedman LLP.

The result of the press was the extremely dubious reputation of Tether. A lot of rumors and allegations of fraudulent actions are forcing the company to actively work with the issue to maintain parity to the American dollar 1: 1. And most importantly, the press was finally able to attract regulators to this problem. The US Commodity Futures Trading Commission (CTFC) has begun analyzing Bitfinex and Tether, sending subpoenas to both organizations. From that moment, pressure on the company intensified. It is noteworthy that the press can also help the company maintain its reputation: for example, the media published evidence of Tether banking activity in Puerto Rico, as well as an issue of 775 million USDT. Thus, the press indicates that Tether may have sufficient US dollars to cover obligations, or is working in this direction.

4. Summary

From the foregoing, we can conclude that cryptocurrencies already possess such necessary characteristics of the Private Money theory as: lack of currency control and regulation of cash,

free competition. That allows us to attach the material in question to the proof of the feasibility of the theory.

5. Conclusions

To date, countries do not have a legislative framework for regulating cryptocurrencies. Nevertheless, we can observe the confident work of the press as a regulatory body. It is the media that create the company's reputation through its own investigations, both denigrating it and proving the “purity” of the company. This state of affairs makes the company actively work with emissions (this can be seen from the unstable price chart) in order to maintain parity of the US dollar against USDT and banks (for the possibility of exchanging USDT for fiat currency), thus giving no further reason to doubt its reputation. Tether has been quite successfully defending itself from attacks by the press for more than two years; any of its actions is analyzed by the community, thus preventing fraudulent actions. This proves that in the market of private currencies free of regulatory bodies, the press can successfully replace them, acting for the benefit of consumers.

Cryptocurrencies comply with the following requirements of “private money”:

- lack of a single national currency;
- free issue of cash;
- currencies are represented by some commercial goods that compete with each other for attracting investments.

Moreover, in a competitive environment, issuers are forced to actively work in the information space, improve the technology and carefully handle the issue of currency. Tether considered earlier, whose peak capitalization was close to USD 3,000,000,000 due to intense competition, today occupying the 5th position in the rating of cryptocurrencies in terms of capital, having high liquidity, confirms the applicability of the theory of F.A. von Hayek in practice.

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