MANIFESTO

Perfect Money, or

cryptocurrency is a bubble,

but a much smaller bubble than fiat money

Cryptocurrency, cryptomoney

Traditional cash is one of type of unit of settlement. It's not the only one; it's far from the first and certainly not the last. Food, jewellery, furs, and other products were used for circulation in the sale of goods and services before the appearance of money as we know it today. These resources still perform on a par with banknotes and coins.

Payment can be anything that a seller wants to receive in exchange for goods or services for what the buyer will provide. The «Weight» (a measure of value) unit of settlement is determined by an arrangement between the buyer and the seller, relevant for a certain period. The more popular a payment is for the population, the more rational, convenient and reliable it is to receive, accumulate and apply in calculations. Criteria for the growth or reduction in popularity of a payment method can change in time given the influence of various factors. We will not list them all here.

> *«Bitcoin is exciting because it shows how cheap it can be. Bitcoin is better than currency in that you don't have to be physically in the same place and, of course, for large transactions, currency can get pretty inconvenient»*
> Bill Gates, Founder of Microsoft.

One thousand years ago, money was introduced into circulation to speed up and simplify calculations and to increase the efficiency of use, which differed significantly from circulation of independent goods. Money met the minimum requirements of society for a universal means of payment. Initially, the concept of money was laid by its security with some resources, but today all money in the world is symbolic (fiat) and is based on trust (fiduciary), which is sometimes discredited for reasons beyond consumer control.

Modern financial and economic theories state many properties and conditions need to be fixed and measured in value to be considered money. Money resources don't correspond to some of these characteristics, and some «inherent» qualities of money invoke many questions about the validity of its existence. Questions have always been asked because certain parameters of money appear artificial. The search for answers previously had no practical purpose, due to lack of effective ways to compare classical money. For example, the liquidity of money is rightfully criticized – if the nominal value of money is rarely changed, then its real value (value of units of settlements for circulation, payment, accumulation, etc.) suffers from exchange rate fluctuations, inflation and interest rates. The high liquidity of monetary funds are justified technically since the immutability of money allows variability of its purchasing power. For consumers to analyse the value of money through liquidity is meaningless. When we look at limited funds, this condition is violated in every country, and it is impossible to observe this effectively. Banknotes are printed everywhere in the amount considered necessary by officials. Criticism of money is still heard, starting with the storage of media and ending with the safety of its use.

> *During the first 5 years of its existence, the value of bitcoin has grown from $0 to $1,000. Since the end of 2013, Bitcoins have produced more than 15 million units and has become valued more than gold. During the next years, bitcoin also grew at quite impressive rate to the current $7,500. For example - the jump from $ 3,000 to $ 4,000 took 6 days, and from $ 6,000 to $ 7,000 was overcome in just 4 days. Now new cryptocurrencies are gaining value much faster.*

Many works have been devoted to the history and structure of money, and we will not go into details, but questions touch on the role of the issuer of settlement units. Is there more benefit or harm in this role? If this role is implicit in the unit of calculation, should it be delegated to a third-party or is it more profitable to execute it independently? According to the out-of-date model of money, the issuer is mandatory. Today, they are the Central Bank holding cash (the state) or banks for non-cash funds (regulated by the Central Bank, but without the liability to citizens for money issued by banks, which assumes civil risks). The problems are obvious – dependence on both Central Bank and banks, whose stability is not guaranteed. Our wealth is managed by a third person without our order and the opportunity to return control to our hands. The absence of a «manager» releasing cash does not affect the indicators and parameters of payment assets. So, gold, oil and gas were never meant to have a third-party issuer – this is the person extracting relevant materials for personal use or resale. Gold, oil and gas are still high-quality commodities for calculating wealth. Their use in private settlements gave way to iron and securities not because of inconvenience of use (storage, transportation, evaluation, etc.), but because of the influence of state restrictions for their detection, extraction and turnover. This is the sole purpose of monopolizing this power.

Rapid development of technology changes many areas of life – new sources of energy appear; payment «flows» into mobile devices; scientists conduct experiments on teleportation. A couple decades ago, this seemed like a fantasy. The same evolution affected units of calculation. Thanks to the appearance of solutions and standards like the block chain system, consumers' requirements for money could be resolved, when previously they could not be satisfied solely technically and technologically. The development of the blocking chain, multiplied by the above-mentioned disadvantages of the established money supply, led to the generation – almost 10 years ago – of the next variety of money called crypto money or cryptocurrency.

Cryptocurrencies, first seen in the early 1980s, refer to digital (electronic) cash, with the important difference of 100% decentralization. There is no role of issuer or other administrator, which brings cryptocurrencies closer to commodity money such as precious metals, preserving and expanding the convenience of calculations inherent in the clearing form of cash. Cryptocurrency is a self-acting network, and its data is distributed among all participants. The operations are always carried out peer-to-peer with no intermediaries. Today cryptocurrencies are taking the world by storm.

> *The world famous Forbes magazine called bitcoin «the best investment»*

Features of cryptomoney

The most significant features of cryptocurrency:

- Absence of currency from the territorial boundaries of fund circulation. There are different cryptocurrencies (Bitcoin, Ethereum, Litecoin and others), each valuable anywhere in the world. Cryptocurrencies are the first «real world» money.
- Benefits from decentralization. Cryptocurrency cannot be disabled or restricted. No one can refuse service from you with cryptocurrency or apply special conditions that differ from other holders of cryptocurrency. There is no dependence on geopolitical situations and risks of linking money to a certain state or country. Instruments to manage cryptocurrency by anyone other than the owner – even court decisions – cannot reduce your cryptocurrency value without your consent and explicit order. But most important, no one can use your funds except you, which could lead to their loss, as in bankruptcy of credit institutions. Central Banks do not bear financial responsibility to citizens for resources stored in banks – in bankruptcy, you can rely on only funds under insurance programs (if they were applied and if the chain insolvency of the corresponding insurance organization did not occur).

> *«I'm a big fan of Bitcoin ... Regulation of money supply needs to be depoliticized»*
>
> Albert Gore, US Vice President, Winner of Nobel Peace Prize

- The available purchase and sale of cryptocurrency in traditional currencies like euro, dollars, pounds, francs, yen, etc., and the available exchange of some types of cryptocurrencies (relevant for investments, as certain cryptocurrencies experience rapid growth, and sometimes are calm without perceptible peaks).
- Bitcoin and altcoins, based on blocking chain technology, have a predetermined and published mining methodology. Intervention in the cryptocurrency emission algorithm is technically impossible, including for authors who cannot be issuers of their own cryptocurrency. Unlike obsolete money, even if there is an organizational legal «limit», there are no instruments for restraining high achievement by the issuer. There is not accelerated and unsupported release of additional accounting units within the declared «limit». The rules of «game» are uniform for everyone in cryptocurrencies, and there is the possibility of predictable high liquidity.
- Bitcoin and most altcoins have a known limit before the number of units achieved by emission (mining). This upper bar cannot be overcome or changed, even by the developer of the algorithm of a cryptocurrency already launched. This property is a parameter of «ideal money», unique only to cryptocurrencies. This guarantees no «collapse» of the

cryptocurrency's value due to uncontrolled emission by third parties. Not a single case of default of a cryptocurrency has been fixed because of this.

- Like classical currencies, cryptocurrency rates are subject to volatility associated with supply and demand on public stock exchanges. Because of the aforementioned characteristics, the cryptocurrencies have permanent growth in purchasing power in medium and long-term prospects. The development of a particular cryptocurrency depends on the number of holders of its units of calculation – the more of them, the more stable the growth rate, which is achieved by time of the cryptocurrency's existence. The more suppliers of goods and services will accept such a cryptocurrency, the more who want to buy or join in its mining, and the more holders of units whom are not ready to sell it cheaper than acquiring or investing in production at its current level. Any cryptocurrency algorithm is designed to reduce production as it approaches the maximum number of units issued. This leads to an increase in the cryptocurrency's use in circulation, which increases its value. As the efficiency (profitability) of mining decreases over time, other ways of obtaining units for the calculation of a certain cryptocurrency are used for its repurchase.
- Blocking chain-enabled cryptocurrencies achieve unchanged data not only in the emission algorithms and by using conventional units, but also in the history of transactions. The software-hardware distribution guarantees a highs confidence level. This invariability of the cryptocurrency is autonomous and independent even from its programmers. In cryptocurrencies, some transactions are validated repeatedly by others. More details on the way cryptography works, guaranteeing the cryptocurrency's unchanged data is recommended reading on the Internet; it is very interesting.

> *«Virgin Galactic is a bold entrepreneurial technology. It's driving a revolution, and bitcoin is doing just the same when it comes to inventing a new currency»*
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> Richard Branson, famous billionaire entrepreneur

- Cryptocurrencies are less vulnerable to theft or loss compared to cash both in cash and in clearing form. Fraud of unauthorized resource write-offs from compromising critical data is excluded. Sending resources with cryptocurrency uses data authentication and accounting. Processing of transactions by recipients occurs with other data (sufficient to receive funds, but not write-offs). Bank card details, in contrast, are used in an explicit open form by the sender of money and the recipient – the safety of which depends on the trustworthiness of the recipient and system protection from «leaks», especially in e-commerce. Besides the login and password, access cryptocurrency's management can be protected by advanced security tools: two-stage (entered in a certain sequence) or double (entered simultaneously) passwords and pass phrases, two-factor authorization (including multistage, for example, a unique code from SMS and then by a unique generated code from Google Authenticator), «white lists» or «black lists» of IP addresses and others. Protection technologies are improving; some use special equipment. Everything depends on the desired balance between comfort of personal use and reliability determined by each holder of the cryptocurrency units.

> «*With e-currency based on cryptographic proof, without the need to trust a third-party middleman, money can be secure and transactions effortless*»
> Satoshi Nakamoto, Creator of Bitcoin

- All transactions in the cryptocurrency are anonymous and, at the same time, public. The latter allows the senders confirmation of their commission, and to the recipients the appropriate crediting of the cryptocurrency so the cryptocurrency can be an official means of settlement. Recipients of cryptocurrencies have an unlimited opportunity to return funds to the person who sent them, knowing the addresses the funds sent. If the sender refuses goods or services of the acquisition, the currency turns into a cryptocurrency. There is no identification in the cryptocurrency and no statement of belonging to a certain transaction or to an address (which can be created as many addresses, use several simultaneously, or changed, to «return» anonymity). This can occur only at will. Your status is unknown to anyone, unlike accounts in the best banks of the world. A person's connection with a specific address in a cryptocurrency will reliably establish the transactions (their number, amounts, days of implementation) received at this address and sent without engaging auditors and conducting unnecessary inspections (which is useful for charitable activities, for instance).
- To receive cryptocurrency and use it with no limits, only the desire to do so is required. Everything happens in real time and without unnecessary complications. It is enough to choose a cryptocurrency and register it in a wallet that works with the cryptocurrency. No artificial limits on cryptocurrency possession and purses exist, and any identity verification of the purse's owner is not seen, as mentioned. Users of purses can become persons of a different status – individuals who are not engaged in commercial activities, private (individual) entrepreneurs without the formation of a legal entity, companies with various organizational and legal forms and even different ownership.
- All transactions in the cryptocurrency are irrevocable, in contrast to acquiring payment cards. The recipient of a cryptocurrency from the moment of receipt can dispose of it with absolute certainty it is definitely and unconditionally owned only by the recipient.
- We can talk for a long time about the advantages of cryptocurrency.*

  Obviously, the future is behind it and in addition to investing money with unquestionable advantages, cryptocurrency allows the implementation of new business models (in particular, ICO). Today, cryptocurrencies are experiencing a period of informing and training their use globally, as more trade and service enterprises ensure payment for their goods and services by cryptocurrency and more people are receiving salaries in cryptocurrency. The latter means that for an increasing number of people, cryptocurrency is becoming the means of payment and circulation and this will drive non-cash settlements into digital money. The share of cryptocurrency calculations will grow each year, thanks to its functionality and properties.

> *«I really like Bitcoin. I own Bitcoins. It's a store of value, a distributed ledger. It's a great place to put assets, especially in places like Argentina with 40 percent inflation, where $1 today is worth 60 cents in a year, and a government's currency does not hold value. It's also a good investment vehicle»*
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> David Marcus, CEO of PayPal

There cannot be a situation when the turnover of cryptocurrency in 2018 was less than 2017. The only question is the pace of this growth. In the last millennium almost everything has changed and it would be strange to assume that a morally outdated model of money will still control humanity. The transition to cryptocurrency in circulation and accumulation is a natural turn of the development of humankind. If the technology of blockchain was available earlier, yesterday's money would have appeared from the start with the capabilities of cryptocurrency. In this way, cryptocurrency is a qualitative investment that surpasses the diversification of established currencies in the portfolio like the dollar or the euro.

Author: Gleb Markov
COO @ Crypterium cryptobank
markov@crypterium.io

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* Recommended literature: 1. "Digital Gold: Bitcoin and the Inside Story of the Misfits and Millionaires Trying to Reinvent Money"; Nathaniel Popper. 2. "Blockchain: Blueprint for a New Economy"; Melanie Swan. 3. "Blockchain Revolution: How the Technology Behind Bitcoin is Changing Money, Business, and the World"; Don Tapscott, Alex Tapscott. 4. "The Age of Cryptocurrency: How Bitcoin and the Blockchain Are Challenging the Global Economic Order"; Paul Vigna, Michael Casey. 5. "Bitcoin: Mastering Bitcoin & Cryptocurrency for Beginners – Bitcoin Basics, Bitcoin Stories, Dogecoin, Reinventing Money & Other Digital Currencies"; Tim Harris. 6. "Mastering Bitcoin: Unlocking Digital Cryptocurrencies"; Andreas M. Antonopoulos. 7. "The Bitcoin Bible"; Benjamin Guttmann. 8. "Great Chain of Numbers: A Guide to Smart Contracts, Smart Property and Trustless Asset Management"; Tim Swanson. 9. "Bitcoin: Money Without Borders"; Yvonne Jenkins. 10. "The Law of Bitcoin"; Jerry Brito Et Al. 11. "Beyond Bitcoin: The Economics of Digital Currencies"; Hanna Halaburda, Miklos Sarvary. 12. "Making Profit with Bitcoin"; Alex Harsen. 13. "Bitcoin, blockchain, cryptocurrency, cryptology"; Jeremy Clark.