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Kiruscheva A, Kleschenok V., Hodkova M., Turcheniuk M. **Cryptocurrency**

Belarusian National Technical University Minsk, Belarus

Cryptocurrency is a number of units of counts which is written in a special order. It can be used to buy goods and services or to make secure online transactions.

The idea to create cryptocurrency started from some projects like "Hashcash", "B-money" and "Bit Gold". All of them were developed nearly at the same time, in 1990-s.

The main idea of the "Hashcash" is making less email spam and preventing DDoS attacks. Hashcash used a proof-of-work algorithm to promote the generation and new coins spreading, much like many contemporary cryptocurrencies.

"B-money" is an anonymous electronic cash system. The scheme is to do untraceable transitions without outside help.

"Bit Gold" is another electronic cash system, which is close to "B-money". But solutions were compiled cryptographically and then published like a modern blockchain would function.

The main idea of cryptocurrency was to create a single digital currency and availed for everyone anonymous transactions. And it came true when a programmer (or a group of programmers) under pseudonym Satoshi Nakamot developed bitcoin.

Cryptocurrency is designed to suggest users a particular set of benefits over other payment ways. The pros are the following:

Protection from fraud. Cryptocurrency is encoded and also secure. It is supported by a specific system named

blockchain. Blockchain utilize volunteers to work with each other to encode the transactions, they make sure that all private data is hidden away from spies. Virtual currency is not centralized. Bitcoin contains servers around the world and more than 10 thousand nodes that track all transactions in the system.

Increasingly world-wide adoption as a payment method. Lots of merchants now accept digital currency payments (Subway, Home Depot, KFC Canada, Namecheap, Starbucks, Expedia and Whole Foods, etc.).

User independence. Digital currencies let users get more autonomy over their own finance than fiat currencies do.

Accessibility. Virtual currency is a decentralized system which can be utilized and available globally. Because users can transmit and receive digital money with a mobile device or a computer, in theory it is available to users without access to conventional banking systems, credit cards and other ways of payment.

Lower fees. Virtual currency includes peer-to-peer transactions, meaning they remove brokerage or intermediary fees, and comes with lower transaction contribution in comparison to other electronic payment methods such as credit cards and PayPal.

Rapid and immediate transaction. Cryptocurrency transactions are very quick compared to banking channels. A digital currency operation is as fast as an email and can be processed in 10 minutes.

In addition to its advantages, cryptocurrency has a lot of disadvantages and pitfalls.

Decentralization. Despite investing in digital currency so thrilling there's also high risk. Decentralization of digital currency manifests itself in absence of body or administrator overseeing the development, management and movement of the currency. Cryptocurrency exchanges do not have the same

level of governmental oversight or auditability as traditional banks.

Untraceable transactions. An exchange mode is complicated and difficult to track, so it's highly problematic to account for transactions made using existing cryptocurrencies. This property makes digital currency the perfect tool for criminal transactions.

Threat of decentralization. Blockchain security is only effective as long as honest miners control more computing power than a team of cooperating attackers. The main caveat regarding probabilistic assurance is that it assumes that no single miner controls most of the network. The system would cease to be decentralized, if a single miner or pool of miners have control over 51% of the nodes.

Vulnerability. In addition, many exchanges are regularly subjected to hacker attacks. Unlike cryptocurrencies, exchanges are not as secure, they are susceptible to various vulnerabilities, which makes them a prime target for attackers. Hacks are especially damaging because they usually affect thousands of users and lead to loss of funds. These incidents can impact any exchange but the biggest losses are borne by small exchanges.

Irrevocable loss of money. While banks can help you in the event of security issues such as a hacked or stolen credit card, cryptocurrency cannot be recovered if it is lost. There are currently no ways for returning lost money.

High volatility. The constant price fluctuation is one of the most significant disadvantages of cryptocurrencies. This instability is caused by media coverage, speculation and uncertainties as the currency is still in its infancy. Out of the charge of a central bank, the value of a virtual currency is highly volatile. As a result, entrepreneurs need to be constantly monitoring the value of the currency.

Cryptocurrency seems too complex and unreliable for mass use. For it to function as an established currency, there would definitely require to be an increase in consumer protection and regulation, which in turn will reduce the anonymity and increase transaction costs, two of the most attractive factors in cryptocurrency. In its current form, cryptocurrency is not likely to become an official currency for the general public, because of its many disadvantages and risks, while its strengths are not necessarily something people want in an established currency. However, the innovations associated with cryptocurrency can still be used. Very likely that some kind of realization of payment system and cryptocurrency technology could become the future of mainstream payment systems.