2020: Cryptocurrency and its regulation

The capital circulation in cryptocurrency is estimated at billions of dollars. Governments worldwide are already forced to reckon with an incomprehensible digital monetary surrogate. Each country has created unique legal regulations making it unprofitable to invest in cryptocurrencies. The Copywriter decided to do some research on this topic. Thanks to it, everyone will be able to understand what it is all about, why and how cryptocurrency affects the financial world we are used to, and how long the era of digital gold will last.

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And here we go.

Cryptocurrency in a nutshell

First, let's recall how it all started. In the very beginning, bitcoin was worth nothing. It could be obtained with an ordinary computer. And in large amounts. Mostly bitcoin was seen as a mere amusement, because "you can take and print money with your laptop." And just the way it is with any beginning movement, the majority did not take it seriously. Before bitcoin rose sharply to $ 300, then $ 500, then $ 700 and ding-ding – today 1 BTC is over $ 16,000, and the industry itself acquired, or rather, began to use a real resource in large volumes – electricity.

Bottom line: a funny thing, not worth a dime, but based on a technology that 90% of users do not understand, has smoothly grown into a competitive analogue to the financial system we are used to. Amusing, isn't it?

Cryptocurrency from a technical perspective: data confidentiality, anonymity and decentralization

To put it simply, cryptocurrency is based on cryptography (the science of encrypting information). Any data transmission system, including banking, is based on it. What makes it special is that the architecture of digital coins itself consists of blocks that can contain absolutely any information – blockchain. The technology itself implies absolute transparency and openness of information to all people. The crypto community supporters promoted cryptocurrency with this idea at first, claiming they are fighting against a rotten bureaucratic system and totalitaristic control of the authorities.

It's just that there is not a whiff of any data confidentiality whatsoever. More like the opposite – decryption, where everything is public and open. For example, each bitcoin contains the entire history of past operations (from what wallets, where, how much, etc.).

Thanks to the information storing function, cryptocurrency is not particularly suitable as a financial instrument, because it grows overwhelmed with data every day, and this entails large capacities not only for network maintenance, but also for storing this information. Due to this, transactions in the bitcoin system are processed at a speed of about 60 transactions per second, while in a modern payment system this figure reaches 60 thousand ...

You may ask, what about the anonymity and decentralization, which also increased the popularity of cryptocurrency!?

First, please do not confuse confidentiality and anonymity. Second, yes, it is inherent for cryptocurrency. Rather, was inherent, or was it at all? Logically thinking, one needs a bank account to exchange cryptocurrency for fiat money. Accordingly, each crypto exchange, and bitcoin itself, is registered somewhere to a legal entity with a bank account. After all, you send fiat there, and you receive a virtual asset, and vice versa.

Next. Even if you pay in bitcoin, for example, for services, the entire chain of cryptocurrency manipulations will be displayed in public blocks. That is, if you are suspected of something and your connection with a crypto wallet is found, everyone connected to you will be found as well. And then there may be a rather chaotic situation in which you will be held accountable for what you did not do, because you do not know what else your contractor was doing, and what your cryptocurrency was involved in before? Due to such possibility, very few companies accept payments in cryptocurrency to this day, thereby limiting the bitcoin development into a real financial system. However, there are exceptions.

Meanwhile, the governments could not allow the transactions of incomprehensible origin between people, because this leads to unrest and terrorism. Therefore, today, on almost all popular crypto-exchanges it is compulsory to confirm identity (send scans of your passport and your photo) before trading or withdrawing funds. The activities of such companies are not covered by the Bank Secrecy Law, and the authorities can easily use this data. As you can see, anonymity in cryptocurrency is a relative concept and takes place until it comes to conversion to fiat.

Speaking of decentralization ... Yes, in general the system is decentralized. If anything can be attributed to complete decentralization here it is perhaps the computer power of the miners, which are scattered around the world.

And the decentralization is as follows. All data transmission occurs through the "Node" – node computers through which information is distributed between users who are in the cryptocurrency network. Any owner of a regular PC or server can make a Full Node. The bitcoin and ethereum networks are built by such initiators. They form an independent web of distribution points that is fault-tolerant – literally a decentralized internet based on providers. But! No matter how decentralized such network is, there is a race here as well, where the leadership over control of, let’s say, bitcoin, is shared by the United States (25%), Germany (19.5%) and France (6.3%):

GLOBAL BITCOIN NODES DISTRIBUTION

Reachable nodes as of Wed May 20 2020 23:36:29 GMT+0300 (Eastern European Summer Time).

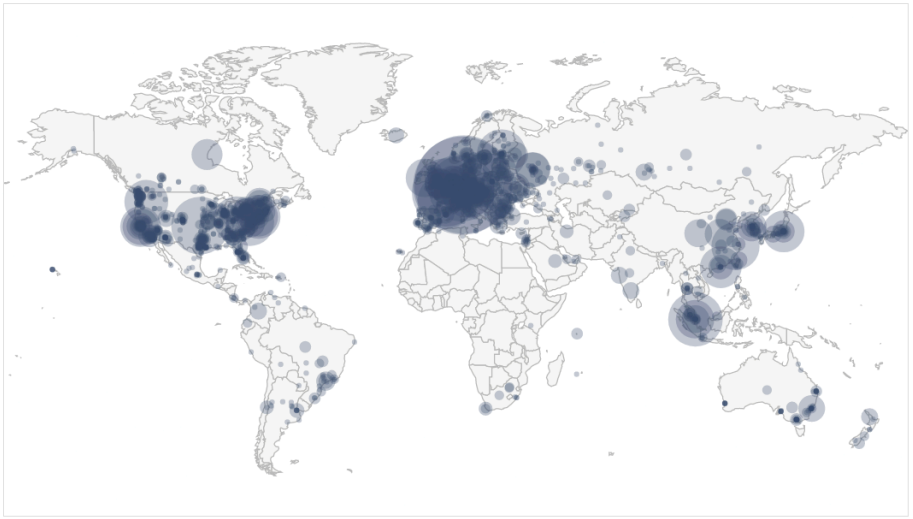
10230 NODES

24-hour charts »

Top 10 countries with their respective number of reachable nodes are as follow.

RANK	COUNTRY	NODES
1	n/a	2113 (20.65%)
2	United States	2023 (19.78%)
3	Germany	1805 (17.64%)
4	France	556 (5.43%)
5	Netherlands	441 (4.31%)
6	Canada	288 (2.82%)
7	United Kingdom	271 (2.65%)
8	Singapore	254 (2.48%)
9	Russian Federation	222 (2.17%)
10	China	207 (2.02%)

More (99) »



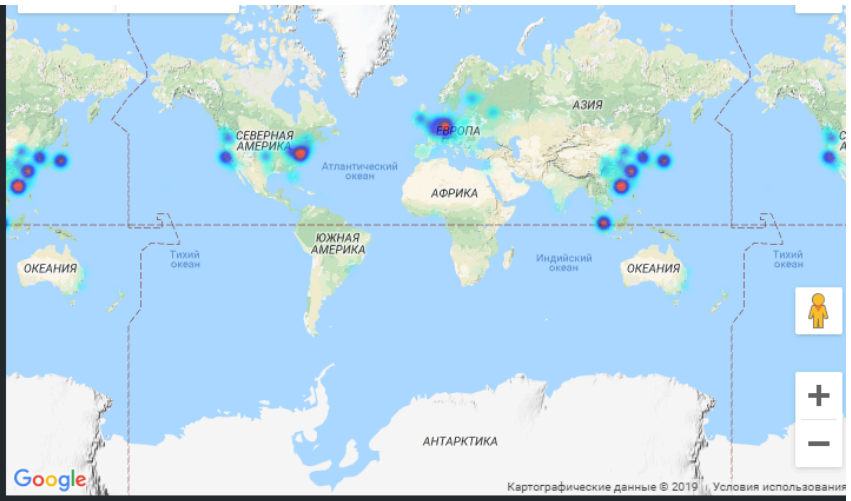
Map shows concentration of reachable Bitcoin nodes found in countries around the world.

LIVE MAP

Source: https://bitnodes.io/

As for the second most popular cryptocurrency – Ethereum. Here the picture is slightly different: the United States (25.8%), China (16.34%) and Germany (9.3%).

United States	1804 (25.83%)
China	1141 (16.34%)
Germany	656 (9.39%)
Singapore	488 (6.99%)
Hong Kong	462 (6.62%)
Japan	418 (5.99%)
South Korea	322 (4.61%)
France	175 (2.51%)
Netherlands	165 (2.36%)
Russia	142 (2.03%)



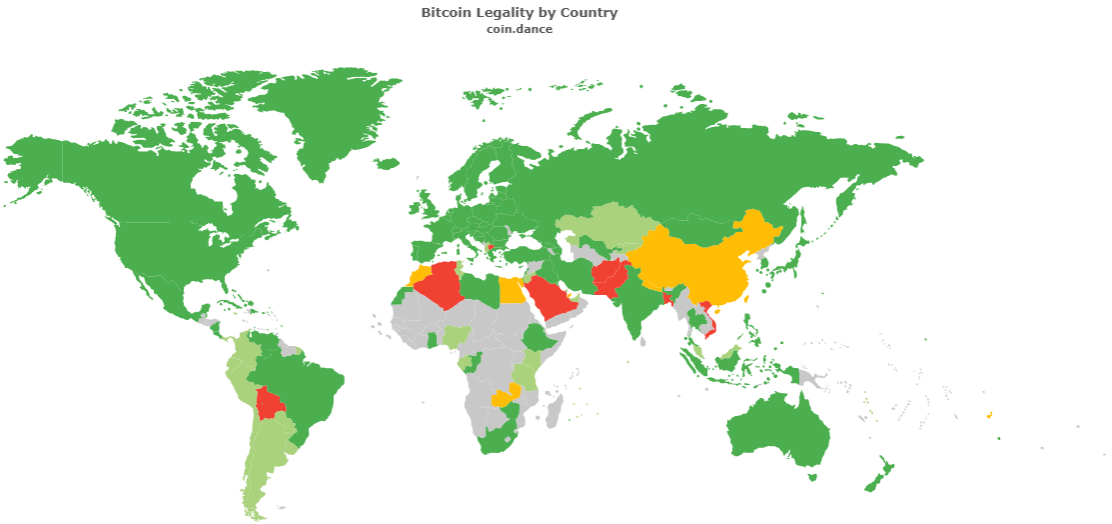
Source: https://www.ethernodes.org/countries

Cryptocurrency from a legal perspective

From the legal perspective, cryptocurrencies are in a so-called legal collapse. Or rather, they were until recently. At first, the government of even the most advanced countries found itself in some stupor when it came to attempts to give a clear definition to digital gold. Somewhere cryptocurrency was recognized as a means of payment, somewhere – a unit of account, somewhere – a commodity, and somewhere – an investment or virtual asset. This variety of designations is clearly in favor of cryptocurrencies, what do you think? The only thing is that everyone refused to recognize bitcoin as an alternative to foreign currency. As a result, each country has made its own formulation, and to this day each forms its own norms for regulating this phenomenon. And this is not surprising, because the whole catch lies in the

kind of dual function of the cryptocurrency. On the one hand, it acts as an information medium, for example, very interesting bank accounts opened in banks in Cyprus were encrypted in the first bitcoin. On the other hand, it gained popularity as a financial instrument – at first, while bitcoin could still be called anonymous, it was actively paid with on the Darknet. Then, as, let's say, analogues of the bitcoin appeared, exchanges for trading cryptocurrencies rapidly began to spread, thereby creating their own, full-fledged financial infrastructures around it. This infrastructure has grown to such a scale that today it can be called a separate, full-fledged market in which billions of dollars circulate. After that, startups began to appear in other areas. And all this without any legal delay ...

Legal status and taxation of cryptocurrencies in different countries – TOP 6 review



Source: coin.dance

- Green – has a legal status
- Lime – extra-legal
- Yellow – limited
- Red – illegal
- Gray – unknown

For one thing, it seems outrageous to levy a tax on exchange rate growth. We do not pay tax when exchanging, for example, a dollar for a ruble or hryvnia? So why did the authorities decide to tax cryptocurrency holders? In my opinion, there are two reasons:

1. Hype basis. Most of the popular cryptocurrencies simply depend on popularity and trade. The more there are wallet users, the higher the cost. But this pyramid scheme has acquired a global scale, where, in addition, considerable capacities are involved.
2. It may contain data that is not at all related to the transaction itself, and this is already fraught with uncontrolled information leakage. This is especially easy if you are transferring data simultaneously with trillions of similar operations. This is not at all beneficial for the "old school"

activities, so it tries in every possible way to discourage all who desire to participate in the crypto movement.

Nevertheless, today cryptocurrency is used in almost all countries throughout the world. "People's money" is already casting a fairly large shadow on financial systems, and governments are simply forced to respond to the current situation (or pretend to do so). They implement legal regulations at the legislative level. This is how the most advanced countries tackle the resulting collapse:

Country	Legal Status	Regulation stage	Banks supporting cryptocurrency activities	Taxation
Japan	100% means of payment	The official name is "crypto assets". From April to October, a standardization of cryptocurrency circulation audits is being developed. There is a methodology for evaluating blockchain startups by the Ministry of Economy	Bank of Yokohama SBI Sumishin Net Ban	Taxation here is quite tough – up to 55% of profits
USA	Complicated. It is considered from three perspectives: -Analogue of money -Property -Exchange goods	Approached the regulation of cryptocurrencies from the side of equities and mining. Each state has its own legal regulations	???	There are special services for the taxable base accounting. Depending on the format of use, income tax (15-35%) or full tax exemption may be charged
Germany	Approached from two perspectives: -private money -financial instrument	Officially recognized as a financial instrument, by which they denote any monetary value in digital form. Legal regulations are almost fully formed	Banks were advised to refrain from activities with cryptocurrencies until all points are settled	By and large, only commercial activities are taxed in which coins are bought/sold in a short period of time (up to 1 year). Income tax 14-45%. Several taxes may apply.

Switzerland	Virtual asset. Approached from the blockchain technologies perspective.	Instead of regulatory norms, they changed their legislation for cryptocurrency. The most advanced regulatory framework is expected to be delivered by 2021 to even allow digital art to be authenticated	SEBA Bank - due to the reputation of Switzerland combined with the bank services – this is the most relevant option for storing and converting cryptocurrency into fiat today.	It is subject to property tax (0.3-0.5%). It is considered a "Net" asset and the price increase is not taxed. Commercial activities such as mining are subject to taxation.
Estonia	Alternative means of payment	One of the first to pass laws regulating cryptocurrencies. Until 2019, it became the center of this industry, where over 500 crypto companies were registered. Legal regulations allow them to conduct business worldwide. After the scandal in 2019 over the laundering of more than $ 220 billion through Danske Bank, it tightened the rules for the regulation and registration of such companies.	???	Not subject to VAT. ICO projects are not taxed until the profits distribution. There is no income tax. All taxation falls on the client and is governed by the legal regulations of his country. If he is a resident of Estonia - 7%.
Singapore	Defined as a product or service. There is a “sandbox” that allows crypto startups to work for the first 6 months without any licenses.	As an equity, cryptocurrency remains in a gray area and legal regulations are still being developed for dealing with digital assets. Therefore, in Singapore, local residents are not allowed to do business with them, and access to the market for US citizens is also limited.	???	There are several levels of taxation. Any commercial activity is taxed at a rate of 17%. There is a tax-free barter system for exchanging bitcoin for goods or services. When receiving income from the sale as a product or service - 7%. The legal framework in commercial activities is very versatile . There are legal provisions regarding double

				taxation, taxes on payments, dividends and royalties.

There are other jurisdictions where you can start a crypto business, for example Australia, France, Belarus or the UK. In general, although the regulators of the countries recognized the cryptocurrency and took it into the legal field, the designation itself, as well as the regulation, remain very vague to this day. This makes it possible to rightfully say that cryptocurrencies at the end of 2020 will still remain in the "gray zone". In most cases, taxation applies exclusively to commercial activities. Almost everywhere there are requirements for introducing cryptocurrencies into tax returns of individuals, and the taxes themselves are paid exclusively on income and range from 7 to 55%.

However, there are jurisdictions where digital assets are not taxed at all and are burdened with minimal accounting requirements. For example, Belarus and Great Britain.

It would seem that Belarus took several steps back in its development due to the political situation, however, here they managed to lay the foundation for crypto investors. As such, the concept of "cryptocurrency" and "token" are absent here, they are replaced by the general concept – "digital sign". Also, a separate environment for IT companies is being developed here – the High Technologies Park. Crypto companies-residents of the park have the opportunity to conduct comprehensive activities in their field and are not subject to any taxes.

As for the UK, the perception of cryptocurrencies here has not changed since the appearance of this phenomenon. They are referred to as a digital asset that is obtained using complex mathematical calculations. Accordingly, the taxation and regulation of the sphere is at the same level here ...

The third side of the coin: startups

The third side of cryptocoins is versatility. Two spheres emerging from these technologies can be distinguished – financial instruments and data processing. Huge amounts of data. Nevertheless, 80% of startups in this industry “split” the integrity of the first cryptocurrency and base their ideas on one of the many possibilities of this technology. As a result, investors are presented with an abundance of projects that are associated either with the stock economy or with data processing.

Also, there are two nuances that are hindering the entire industry. First: creating a decentralized data distribution network without the practical application of technology (meaning without trade) is a very time-consuming task. Second: who can benefit from absolute transparency in a world where information is the second oil? Because of this, most projects never went beyond ideas, for example, conducting state elections using digital media.

However, in addition to the pioneer Bitcoin and its corporate brother Ethereum, there are also successful projects in healthcare, logistics, real estate and IT. Here are some examples.

Storj Labs

One of the first projects in the field of distributed decentralized cloud storage.

Solve.Care

Global blockchain healthcare technology company.

Propy

Control, accounting and creation of a real estate registry is an area in which specialists predicted blockchain technologies to immediately find large-scale use.

Geo Protocol

A project dedicated to the development of a single network that will integrate the blockchain with traditional financial systems.

Provenance

The platform enables businesses to make supply chains more transparent and makes it easier to track goods.

Everledger

A project for registering information about diamonds on the blockchain, the goal of which is to unite all participants in the industry, including manufacturers, distributors and buyers.

Blockchain projects literally shape the platform economy, where the value of, for example, each diamond purchased through the platform directly affects the value of the token (coin) itself as a whole. As a result, it makes sense for investors not only to invest in diamonds, but also to be members of the network itself, buy diamond coins, etc.

We can say that blockchain projects form, or rather, are aimed at narrow branches of the global economy. They form a complete financial system for one area, but on a global scale. As a result, the value of virtual assets is directly related to a product or service in the entire market, but not tied to the exchange rate of common currencies or the value of shares of one company. It would seem that there is nothing wrong or illegal in this. And on the contrary, blockchain projects are able to systematize spheres and industries, and for global control it couldn't have been better. Imagine if we convert all the indicators, for example, of the global oil industry into one scale – the value of its token ...

So why are the authorities still unable to come to an agreement and develop standards?

How authorities struggle against crypto communities

Many participants in one cryptosystem or another are convinced that the authorities strive for absolute control over them, that they in every possible way prevent the development of alternative money, fight anonymity, etc. Yes, financial control is the only necessary remote control for managing a person,

company, country, industry, or whatever. From the financial reports, you can find out what and when you ate, where you went, what you are wearing and on what sheets you sleep. But! It's not worth worrying about this much. All this data is needed and useful only in large volumes. Thanks to it, the authorities calculate, for example, how much rice they need to plant to feed the Chinese next year, etc.

Personally, I see only one reason why digital assets have not yet replaced the money we are used to. As mentioned above, there are projects that have taken one advantage of cryptocurrency and built their idea on its basis. And here come exchange tokens – cryptocurrencies that are intended solely for trading. They are not backed by anything and do not strive to achieve any useful goals. Such projects are actually based on speculation and the government clearly has claims against them, although from the legal point of view it is difficult to present them ...

Where blockchain technologies development leads us?

Or

What does everyone think but no one says?

Countries cannot ignore the promise and the ambitions of blockchain technologies and what are they up to? They are launching the development of CBDC - Central Bank Digital Currency. Its purpose is to become an analogue to paper money. What will happen if government cryptocurrencies are launched?

I dare to suggest the following. Imagine that all your transactions, purchases and transfers within one currency are served by one bank. Private banks will disappear, and with them any transaction fees. Each person or company will have their own "financial passport", which will fully give an overall picture of your financial condition. And such information will be available to every country whose cryptocurrency you use. Since each country will have its own "digital coin", which is backed the same way the regular currency is backed now (including the country's resources), its trade will replace bond trading, and due to the peculiarities of the blockchain, any speculation in terms of "printing money for yourself" will become impossible. As a result, the international financial system will become transparent like a tear, and a real carnage will begin, where every transaction and agreement between countries will directly affect the value of its cryptocurrency, and hence the currency as a whole.

In this situation, bitcoin will fulfill its function and there will be no more need for it, but nothing will change. Unless the intermediaries who shape the market will disappear. Instead, narrow-industry tokens will begin to influence the market, as in the examples above. Taking into account their global, but narrow direction, the value of state cryptocurrencies will largely depend on the number of their presence in the capitalization of "narrow industry coins". As a result, countries will have the opportunity to fight for control of entire industries at the global level ...

Instead of conclusion

The reality is that at the end of 2020, cryptocurrencies are still in "legal collapse", and the development of "state cryptocurrencies" is only at the testing and research stage. The industry is already consolidating billions of dollars, and in order to control the origin and circulation of these funds, regulators in each country introduce a variety of legal norms that only aggravate the attitude towards the industry. Due to the versatility and complexity of the blockchain, there are very few truly useful and successful projects in this area.

To sum up, we can safely say that the development of cryptocurrencies will sooner or later lead to absolute transparency of financial relations – this is a fact. Regarding blockchain in the concept of a decentralized internet, this is clearly the future of Bitcoin and Ethereum. And all these innovations will certainly support narrow-industry projects. They will become the connecting link in the transition to a new stage of "global economic evolution".