MAERKI BAUMANN & CO. AG

PRIVATBANK

Digital assets – opportunities and risks for investors

The innovative blockchain technology ("distributed ledger technology" – DLT) and the associated expectations have already attracted a considerable amount of attention. For both private and institutional investors, however, it is still not easy to profit from the numerous possibilities of this young technology. In a market environment that remains fairly opaque, investors need to find their way around the many different providers and specialists while also overcoming the technical hurdles that exist in connection with blockchain technology. The specialists on our Crypto Desk are looking to shine a light in the darkness with this publication.

"Why should I invest in digital assets?"

There are various reasons why investors might wish to invest in financial products based on blockchain technology. Broadly speaking, these motives can be broken down as follows:

1. "DLT is cool and new. I am keen to give it a go and want to know how it can work for me. An investment in this area promises interesting returns, while the same time being both fun and instructive."
2. "DLT is set to change the world fundamentally, in all walks of life. New, innovative companies are being founded and are growing rapidly. I want to participate in this growth, be it through equity investments, traditional funds, venture capital funds or participation tokens."
3. "People are losing faith in central banks and governments. The next (or perhaps the current?) crisis will change everything, and traditional repositories of value – such as equities, bonds, and currencies – will depreciate greatly as a result."

What is my risk type?

Just as when approaching traditional securities like equities and bonds, you should first of all define which risk type you belong to, and what you are expecting from the acquisition of digital securities.

No interest, no dividends

One thing should be made clear right from the start: cryptocurrencies do not distribute either interest or dividends. The only source of profit is the future increase in the value of the "coins" you hold [1]. When this price gain is expected and what form it takes will depend heavily on the individual appraisal, rather than on pertinent expert opinions or fundamental analyses.

"Am I a short-term or long-term investor?"

Are you anticipating short-term profits through market volatility over the next few days or weeks? If so, cryptocurrencies are an interesting instrument of speculation, as they are renowned for their dramatic changes in value within a short period of time, i.e. their high volatility. However, long-term investors seeking an enduring rise in value over several years are also now discovering cryptocurrencies as an asset class. Many investors have been involved with Bitcoin for a number of years now, and modify their holdings only very slightly in the face of price fluctuations. Incidentally, such an investor is also known as a "hodler"[2].

Depending on their risk appetite and investment horizon, investors may also look at cryptocurrencies in very different ways:

Short-term investors focus on the technical analysis of prices, price developments, patterns in the market and changes in trading volumes. What matters to them most of all is their price expectation for the next few days and weeks, and the ability to enter into short and long positions. The trading of cryptocurrencies often involves similar techniques to those used in the trading of traditional currency pairs, e.g. USD/EUR.

Long-term investors are less interested in price fluctuations, and more focused on the fundamental valuation of an asset. This kind of fundamental analysis is commonplace in the world of equities, bonds, and commodities.

[1] A "coin" in this sense is an independently functioning cryptocurrency with its own independent platform (e.g. Bitcoin, Ether, etc.)
[2] This is a corruption of the word "holder".

For decades now, there have been various models for calculating the intrinsic value of an investment instrument, identifying undervalued companies and analysing medium-term price developments. The models and key metrics for equities and bonds have developed over many years, and may vary depending on the sector in question and the particular thrust of the analysis. Such analyses are rather challenging for cryptocurrencies, as this is a young asset category for which there is little empirical data.

Key things for long-term investors to know

Over the last few years it has become clear that the following factors should be borne in mind when contemplating a long-term investment in cryptocurrencies:

Airdrops: This is the term used for free giveaways of coins or tokens[3] with a view to promoting their use. The company that gives these out in the marketing of a project is typically hoping for valuable publicity that will then increase the price of the distributed coins or tokens through higher demand. In many cases, an airdrop resembles the emission of bonus shares: The intrinsic value of the project is divided among a greater number of coins or tokens, which tends to have a negative impact on the price.

Halving events: Particularly for Bitcoin and its copycat cryptocurrencies, halving events play a key role. At certain points in time, the remuneration paid to "miners"[4] for their own computer work is halved. This has the effect to reduce potential miner income, as less coins are then credited to their accounts as compensation for each block calculated. The prices of cryptocurrencies tend to rise in connection with such events. In the case of Bitcoin, the last halving event occurred on May 11, 2020.

Practical benefit: This refers to the usability or current function of the coins in question. The benefit often correlates with the value of a coin, as a practical benefit offers an incentive to invest in the coin, use it, and pos-sibly also hold it over the longer term:

- In the case of Bitcoin, the practical benefit should above all be considered its function as a means of exchange between users. Particularly for people in countries with weak currencies, for example, local funds can easily be exchanged for protected assets shielded from interventions by the national central bank. This can also help to avoid high bank charges and long transaction times.
- Ether is used to pay for services (such as the programming of its own token) on the Ethereum platform. Investors expect an increase due to demand for services and therefore prefer Ether.

Summary: Digital assets

Once you have decided to invest in digital assets, you are in a similar position to when you first learn to swim: it's best not to plunge headlong into deep water by investing in unknown currencies or coins. It makes sense to build up experience with smaller amounts. Experience will increase your knowledge, your confidence in innovative investment opportunities and your awareness of the risks involved. Soon you'll be able to swim freely in the crypto environment. In the end, it is you to decide whether you can sleep soundly with the risk of an investment in digital assets.

"Where should I purchase my digital assets? The quality of crypto exchanges and brokers is often difficult to assess."

Blockchain technology allows you to pass on or sell Bitcoin – directly to business partners, family members or friends, for example.

Crypto exchanges

The overwhelming majority of transactions involving digital assets take place on technical intermediary platforms, so-called crypto exchanges or trading apps. However, these vary dramatically with respect to size, liquidity, trading volumes, and regulation. Hence there are a number of specialized brokers[5] who connect to various crypto exchanges and thus seek out better prices for the desired

Top 10 cryptocurrencies by market value

As at 28 May 2020

#	Name	Market capitalization	Price	Volume (24 hrs)	Circulating supply
1	Bitcoin	EUR 153.409.651.108	EUR 8.343,04	EUR 28.205.039.577	18.387.731 BTC
2	Ethereum	EUR 20.932.604.130	EUR 188,39	EUR 9.105.841.526	111.112.848 ETH
3	XRP	EUR 7.855.879.493	EUR 0,178086	EUR 1.378.043.840	44.112.853.111 XRP *
4	Tether	EUR 8.019.216.128	EUR 0,911475	EUR 30.428.618.031	8.789.069.379 USDT *
5	Bitcoin Cash	EUR 3.860.545.184	EUR 209,59	EUR 2.662.624.299	18.419.381 BCH
6	Bitcoin SV	EUR 3.116.637.988	EUR 169,22	EUR 1.252.291.964	18.418.033 BSV
7	Litecoin	EUR 2.577.181.213	EUR 39,75	EUR 2.390.014.904	64.828.998 LTC
8	Binance Coin	EUR 2.333.711.515	EUR 15,00	EUR 261.874.848	155.536.713 BNB *
9	EOS	EUR 2.153.787.738	EUR 2,31	EUR 1.567.554.404	933.004.288 EOS *
10	Tezos	EUR 1.745.692.332	EUR 2,45	EUR 62.314.355	711.988.018 XTZ *

* not mineable

Source: www.coinmarketcap.com

[3] The word "token" is often used as a synonym for "coin". The difference is that tokens do not have their own independent platform.
[4] Miners control the network, keep it stable, and verify new transactions. They are rewarded for this work at a level commensurate with the computing capacity they make available.
[5] Companies (or their employees) in the securities business that only execute orders on behalf of clients and do not trade on their own account.

currency. A number of companies have specialized in the referral of liquidity between the different crypto exchanges in order to facilitate the execution of client orders as liquidity providers while at the same time generating additional revenues.

Beware: Experts estimate that more than 80% of the volumes published by crypto exchanges are bogus. These figures can be generated, for example, by investors simultaneously buying and selling a cryptocurrency in order to increase trading volumes ("wash trading").

Top 10 crypto exchanges by trading volume and liquidity rating

As at 28 May 2020

#	Name	Rating ∅ Liquidity	Volume (24 hrs)		Launch
1	Huobi Global	488	EUR	2.980.037.300	Sep 13
2	Bibox	479	EUR	981.726.381	Nov 17
3	Binance	449	EUR	4.419.960.300	Jul 17
4	Bitfinex	441	EUR	87.691.505	Oct 12
5	Coinbase Pro	413	EUR	213.621.496	May 14
6	HitBTC	413	EUR	514.831.518	Dec 13
7	Bitrue	406	EUR	197.421.186	Jul 18
8	OKEx	400	EUR	2.444.259.792	Jan 14
9	Kraken	376	EUR	187.666.659	Jul 11
10	BitMax	371	EUR	171.826.104	Jul 18

The challenge of client support

Client support is very basic at many crypto exchanges, and ideally will mean that a helpdesk is available. In most cases, a FAQ information page is all that will be provided. Response times and specialist expertise can sometimes differ dramatically from one exchange to another. A lot of the fledgling crypto exchanges lack sufficient resources to provide clients with proper support.

Trading with Maerki Baumann

Up until now, only very few banks have offered trading in cryptocurrencies, as it involves substantial investment and requires specific expertise. Maerki Baumann has embarked upon this path: since June 2020 we have been offering our clients the opportunity to trade in digital assets. The trading orders placed with us are placed with professional crypto brokers and to the world's leading and most liquid crypto exchanges. Our dynamic order management system ensures that transactions are always executed with a low "spread" (difference between bid and offer price).

"OK, so I've purchased cryptocurrencies – what do I do with them now?"

Your traditional liquid funds, so-called "fiat" money, typically sit in your bank account and are kept safe and monitored by the bank of your choice. Equities and bonds are looked after and managed centrally. Gold is stored in massive steel safes. By contrast, cryptocurrencies simply sit around – and can be openly viewed – on the blockchain. Depending on how you have purchased the cryptocurrency in question, there are various custody options open to you.

Private key – secure access to your digital assets

What is really crucial here is where – and how – you store your "private key". This is essentially a kind of password that is required for all transfers. Anyone who knows this password can simply remove the corresponding assets from your crypto-wallet. Hence the saying "Not your (private) key, not your Bitcoins." Here is a hypothetical example of a private key:

KwRSDUPhNJ3R8HwyvmwvvJHtasj9SGxnZ1DxuGuJZf-mCSC7ovhQf

There are various ways in which these private keys can be safeguarded; in all cases a crypto-wallet will be required.

Crypto-wallet – your digital administrator

A crypto-wallet is a software programme that was developed to store your private keys, send and receive digital currencies, monitor your balance, and interact with various blockchains. What's more, you will need a crypto-wallet to administer your digital assets and hold them securely.

A distinction here is made between "hot wallets" and "cold wallets" – the words "hot" and "cold" refer to the associated custody solution. A hot wallet is permanently linked to the internet; hence the associated term "hot storage". In the case of cold wallets – or "cold storage" – external hardware is used to separate the connection to the internet; in other words, you might keep your private keys on a memory stick, for example.

Hot or cold?

Private keys associated with cryptocurrencies should be secured in a cold wallet to protect them against hackers. Cold wallets are among the most secure custody options for private keys, as they prevent access data from being accessed via the internet.

Beware: That said, the secure custody of digital assets through the use of cold wallets has one key drawback: it is not possible to react swiftly to market movements and quickly buy or sell coins. Only with a hot wallet is the immediate trading of cryptocurrencies possible. Investors who want to take advantage of sudden upward and downward market movements will therefore have to go for a more risky form of custody.

Cryptocurrencies were introduced as a disruptive financial technology to make global transactions simpler, faster and more secure, while at the same time giving the holders complete control of their assets. They have the effect of eliminating the need for brokers or money transfer services. But anyone who has set up their first crypto wallet and has had to choose from the wide range of potential hardware for secure custody of private keys will know that achieving "financial sovereignty" can be a more laborious process than people might think.

Custody with Maerki Baumann

In addition to the trading of digital assets, we also offer you the secure custody of your cryptocurrencies and tokens.

We look after your digital assets in your personal crypto wallet, which is protected by state-of-the-art security measures. This obviates the need for you to have your own crypto wallet on your smartphone, have your private key multiply protected, or worry about whether you have the right cold storage solution.

When looking after your digital assets, we rely on the very latest technology and the expertise of highly experienced partners. Our multi-layered security architecture is designed to ensure maximum protection against cyber-attacks, as well as against unauthorized access. All data is saved in rigorously protected facilities in Switzerland.

Seed phrase – your salvation

You may have set up a crypto wallet – but you're not quite finished yet. When setting up a private key, you must ensure that it can be recreated in the event of the private key being lost or forgotten. Here you should be using what is known as a "seed phrase". This is a sentence of between 12 and 24 words that recreates the private key when condensed.

Beware: As soon as the seed phrase is known, the private key can be reconstructed and you (as well as an unauthorized third party!) can gain access to your digital assets. All of which makes it absolutely vital that you look after it carefully.

Summary: Custody of digital assets:

The more people use blockchain technology, the more it becomes clear that the great advantage of this new technology – the direct transfer of money between individuals – poses a challenge for many. Of course, not everyone will want to explore the depths of blockchain technology, seek out a secure custody solution for their wallet address and private key, and ensure that the necessary information is also multiply protected. We are convinced that only a small number of interested parties will be willing to invest their time and effort in such an endeavour. The majority of people who are interested in Bitcoin & Co. approach this area wearing their "investment hats". Only a relatively small number will be interested in the technology underlying cryptocurrencies.

The future could well bring trading apps that are simple and intuitive to use, while at the same time ensuring the secure custody of crypto wallets and private keys. But those solutions are still some way off. Thus many investors are turning to banks, as these institutions have a wealth of experience when it comes to the secure custody of assets.

Do the opportunities outweigh the risks?

We are convinced of the huge potential of blockchain technology. Blockchain technology opens up very far-reaching opportunities for simplifying processes and making the intermediary bodies that have up until now guaranteed the accuracy of data and transactions completely superfluous.

However, the technical challenges confronting newcomers and investors with little experience are holding back the growth of this innovative investment category. It is therefore our aim to make it faster, easier and more secure for you to access this world. Ideally you will deepen your understanding of digital assets by trying out the trading and custody of these assets and acquiring initial experience – with your bank as your trusted partner.

Overview of tradable digital assets

- Bitcoin (BTC)
- Bitcoin Cash (BCH)
- Bitcoin SV (BSV)*
- Cardano (ADA)*
- Dash (DASH)*
- Ethereum (ETH)
- Ethereum Classic (ETC)*
- Feathercoin (FTC)*
- IOTA (MIOTA)*
- Litecoin (LTC)
- Ripple (XRP)
- Stellar/Lumens (XLM)*

* planned, to be offered soon

Editorial deadline: 28 May 2020

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