

An introduction to crypto currency

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Most of us have probably heard of the *blockchain*, the technology that underpins crypto currencies. It has the potential to transform the way we live and do business in future. The topic can be an intimidating. Here is an introduction...

What is it?

Crypto currency can be defined as a digital currency for which transactions are verified and records maintained by a decentralized system using "cryptography", rather than a centralised authority such as a national reserve bank.

Digital currencies (mostly private) are not controlled by any government or central bank such as the *South African Reserve Bank (SARB)*. Governments could ban these currencies and/ or associated activities. However, enforcing such bans is difficult. In reality crypto currencies are digital vouchers based on an algorithm or mathematical formula that determines how ownership can be transferred or redeemed; how much of it may be in circulation and how it can be used in various business transactions. The process of confirming the validity of changes in ownership (more accurately digital wallet locations) is called "mining". Miners need a lot of computing power and electricity as they compete to be allocated the next block of transactions for verification.

Private crypto currency started a little over ten years ago – of which *Bitcoin* is the most well-known. We can safely assume that crypto currencies in some form or other will most likely be with us for a long time. Governments have started to explore issuing their own crypto currencies. For example, China has effectively banned private crypto currencies and issued their own version of digital currency, which is equivalent to their paper money, the *Renminbi*.

How does one invest?

Investors wishing to gain exposure to a particular traditional currency for the sake of the currency itself (i.e. not the equity market of the associated currency) typically invests in the debt securities of the associated government. To gain exposure to crypto currency an investor may:

- Buy the crypto currency itself and leave it on the exchange where it was purchased, or send it to a so-called "cold wallet", where it is stored as digital code on a special memory stick.
- Or, buy into a fund that invests directly in crypto assets (typically this is expensive), or in futures contracts associated with crypto assets. Contracts are only available in the US and are expensive.

What is it worth?

The characteristics of a crypto currency overlap with traditional money, also known as "fiat" currency – paper money that a central bank issues. The term "fiat" is a Latin word that is often translated as "it shall be" or "let it be done." Thus, **fiat currencies only have value because of a government's support**. Crypto currencies have characteristics that make it near impossible to value using traditional financial, or economic models.

Some say crypto currency has no yield or income so it cannot be valued (by the way, precious metals such as gold also has no yield). Whilst crypto earns no interest or dividends while being held on an exchange, these

currencies may have a yield where exchanges facilitate lending for customers with the risk appetite. Borrowers are currently mostly speculators.

Others claim it has no value because it does not come with sovereign guarantees and a government to "protect" its value. This argument is invalid for citizens of, for example, Zimbabwe, Venezuela, Nigeria and so forth. These governments have made a mockery of the idea that a central bank are custodians of the national currency. In those countries crypto currencies are not only used as a medium of exchange but also as a store of value. Due to shortages of "hard" currencies such as US Dollar in these countries, the local banks often maintain artificial exchange rates that bear no resemblance to the real world – at the expense of their customers. Citizens of these countries (perhaps a large part of the global population) are served exceptionally well by this new technology. El Salvador recently became the first sovereign nation to accept *Bitcoin* as legal tender. This means that if someone wants to settle a transaction with *Bitcoin*, the counterparty has a legal obligation to accept it.

Bitcoin and others...

As of today, there are more than 4 000 crypto currencies or "tokens" as they are also known. The number grows at a staggering rate. In our humble opinion, eventually most of these will likely become worthless. The total value expressed as a market capitalisation stands at roughly \$2.8 trillion (more than two thousand billion). It is the total number of units of each currency multiplied by its USD price. *Bitcoin* represents by far the biggest chunk, followed by *Ethereum*.



In conclusion

Some may view this phenomenon simply as another version of the [Tulip mania](#). Central banks globally have warned investors that they should prepare to lose all of their crypto investments. The CEO of one of the largest US financial institutions calls it fool's gold. However, some of the best talent in finance and science devote a significant amount of their time and capital to projects in this area. Also, several high-profile investors expect it to change the way businesses transact. Reality will likely be somewhere between what is expected by the prophets of doom and prophets of price growth to the moon.

In the mean time we should do our homework and manage the risk in our portfolio without allowing emotion to influence our decisions.