## Brief history and definition of cryptocurrencies

Investors have attempted to understand exactly what cryptocurrencies are and how they work since Bitcoin first appeared on the financial landscape in 2009. Bitcoin was created by Satoshi Nakamoto shortly after the start of the global economic recession that occurred around the same period.

Since then, many different types of cryptocurrencies have appeared on the scene, such as Ethereum, Litecoin and Ripple, to name a few.

The simplest definition of cryptocurrencies is that they are a virtual currency, which is created by the coding and decoding of text and this process is called cryptography.

Many cryptocoins are created using mathematical algorithms to produce the currency at a reasonable rate to keep up with supply and demand and ensure that they do not lose their value. Each currency runs on a blockchain, which is a digital, open-source ledger full of "blocks" (digital transaction records) that records all purchases and transactions.

The decentralized nature of many cryptocurrencies means that rather than being stored in a central location, they are stored on the computers of users all over the globe.

## Introduction to the blockchain

The blockchain is a unique form of Distributed Ledger Technology (DLT), which provides the architecture for the management of cryptocurrencies. Recently 'completed' blocks are recorded and added to the blockchain in chronological order. It allows miners to keep track of digital currency transactions and add them to the public ledger without the need for a central authority.

The basic principle behind the technology is to create trustless, transparent and secure transactions that can be conducted online by users anywhere in the world.

Cryptocurrencies such as Bitcoin are bought and traded over exchanges such as Coinbase, CoinSquare and CEX.io. They are then stored in virtual wallets that can be accessed from anywhere in the world. Those digital wallets exist on the blockchain.

Cryptocurrency transactions typically involve two people - the sender and the receiver. Both parties must sign off on payments to create a digital signature. Users are given a public and a private encryption key, which makes this possible. Those transactions are then verified by miners who use powerful computers to solve sophisticated math problems that are critical to the verification process. Anyone can confirm a transaction, and the first miner to solve the problem gets to add a block to their ledger, under the "proof-of-work system".

## What makes cryptocurrencies so appealing?

Although cryptocurrencies have not yet reached mainstream adoption, investors are increasingly viewing them as an attractive option, while a growing number of businesses are accepting them.

For example, research commissioned by Citrix revealed that half (50 per cent) of large UK businesses have built a stockpile of digital currency. The majority of those businesses (93 per cent) are spreading their cryptocurrency risk by investing in other digital currencies.

In Japan, more than 260,000 businesses now accept cryptocurrencies, thanks to a partnership between Recruit Lifestyle and Japanese Bitcoin exchange Coincheck.

Meanwhile in America, nearly half of all American millennials have reported an interest in cryptocurrency, according to research by YouGov Omnibus.

Many people list the decentralised nature of cryptocurrencies as being a major part of the appeal. The fact that there is no central authority controlling the transactions helps to alleviate much of the concern regarding financial mismanagement and consumer trust.

Cryptocurrencies may also play a key role in preventing identity theft because users have a private key, which cannot be seen by anyone who does not have the key. Every cryptocurrency transaction is unique, which makes it easier to verify transactions.

The possibility of fraud is significantly reduced because payments cannot be reversed once they are made. Transactions are also anonymous, which means that user information is not passed onto a third party.

However, cryptocoins are also subject to spikes and crashes. For example, Bitcoin was worth around \$19,000 in 2017, whereas today it is only worth around \$6,000. Part of the problem is that the value of many cryptocurrencies are difficult to measure or define.

## **Cryptocurrency - Final thoughts**

Since the creation of Bitcoin, more than a thousand new cryptocoins have appeared on the scene. Like fiat currency, the value and popularity of cryptocoins vary significantly depending on the country or geographical location they are created in.

Over the last 10 years, cryptocurrencies have been adopted by thousands of investors, individuals, businesses and even countries. While they are a long way off from dominating our current financial system, they have become such an integral part of many business functions and investments that the popularity of these cryptocoins shows no sign of abating anytime soon.