PUT SIMPLY

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Digital Assets and Cryptocurrency

What are digital assets and cryptocurrency?

At a very general level, digital assets and cryptocurrencies can be defined as non-physical electronic only items that are considered to have value to both a buyer and seller that can be exchanged. Digital Assets are a technology enabled, new type of asset class which includes cryptocurrency. In this Jersey Finance Put Simply we focus on explaining these two items in the context of financial services in Jersey.

Digital assets

A digital asset is something of value that exists in electronic form, usually in the form of a token that represents ownership of all or part of a real world and non-electronic asset. In financial services these are often referred to as security tokens which relate to a tradable asset or utility tokens which relate to a set of permissions such as the ability to use a service. Outside of financial services other forms of digital assets exist, such as the marketplace for the sale of virtual goods and items in video games which is a multi-billion-dollar industry.

The asset could be something physical such as a building, a bar or gold, or a piece of art, or it could be financial such as a token to represent debt. The token can be thought of as a share that can be traded between parties for all or part of the asset.

Cryptocurrency definitions

European Banking Authority on Cryptocurrency, 2014

"A digital representation of value that is neither issued by a central bank or a public authority, nor necessarily attached to a fiat currency, but is accepted by natural or legal persons as a means of payment and can be transferred, stored or traded electronically".

Jersey Financial Services Commission on Cryptocurrency, 2017

"Virtual Currency (e.g. Bitcoin) means any currency not issued by or recognised as legal tender in any jurisdiction, that:

1) Digitally represents value (value determined by offer and demand)
2) Functions as a medium of exchange (payments for goods and services widely)
3) Is a unit of account (1 BTC)
4) Can be digitally exchanged for money (FIAT currencies e.g. pounds, dollars)"

Cryptocurrency definitions vary by place and organisation, but cryptocurrency can broadly be considered as digital money created securely by cryptographic code which has a value, meaning people are prepared to buy and sell the cryptocurrency. Other terms for cryptocurrency include virtual currencies, coins, altcoins, tokens, or crypto. In all cases, cryptocurrency can be considered as a very specific type of digital asset.

How can a physical asset become virtual and what is the benefit?

The process is complicated and will vary based on the asset, the individuals involved, and the rules of the place where the process is taking place. The example below is a simplified version for general information:

1. The asset to be digitised is identified
2. The structure of the deal including amounts, the legal structure, regulatory requirements, and the rights of shareholders and investors are agreed
3. The technology platform and way of creating the tokens is chosen
4. The tokens are created through a process known as 'minting' and are available for purchase through an exchange

People in Jersey may be familiar with the concept of a share transfer property whereby people purchase a share in a company rather than the property itself. In very general terms, digital assets can be thought of as an electronic extension to the concept of share transfer.

An advantage of a digital asset is that it can be traded much faster under the form of a token than if it was a physical asset. Another advantage is that fractional ownership can take place, for example a set of investors may own a building but it is traditionally complicated to sell the building without agreement of all the investors, by tokenising the building into a digital asset of say 100 tokens an investor could sell their share of 10 tokens to another investor without having to sell all the building.

Where do cryptocurrencies come from?

Since the invention of computers money has existed in electronic form but this is linked to real word money known as fiat currency which can be spent electronically via online payments, apps, or bank cards. Cryptocurrency is different in that it is not created by a central organisation, it does not use a traditional banking system, and its value is linked to what people are prepared to pay for it.

Cryptocurrency is based on the use of cryptography (hence the crypto part of the word cryptocurrency) to secure financial transactions, control the creation of units of currency, and verify the transfer of ownership.

In 2008, a person using the pseudonym Satoshi Nakamoto published the white paper called Bitcoin: A Peer-to-Peer Electronic Cash System. The paper proposes an online only currency in the form of a digital coin called Bitcoin which could be exchanged directly between two parties without the need for banks or payment systems.

In the paper, Nakamoto proposed that complex cryptographic puzzles which support verifying and authenticating the transactions are solved and that in return for solving a puzzle the first person to do so is rewarded with Bitcoin. This has led to people making significant investments in computer hardware to increase their chance in solving the puzzle and earning the Bitcoin which can then be spent or converted into real world currency.

Bitcoin was the first cryptocurrency to be created and while it remains the most well known and most frequently used cryptocurrency other popular cryptocurrencies including Ethereum, Tether, XRP, Litecoin, and EOS exist. Generally speaking, these share the same properties that allow them to be traded but have different ways of being created.

As at June 2020, over 2,600 different cryptocurrencies exist with a total value of over $257bn. However, Bitcoin accounts for over 65% of the value of all cryptocurrencies and Ethereum accounts for another 10% of the market.

More information on the process underpinning how cryptocurrency is created and controlled can be found in the Distributed Ledger Technology Put Simply which covers key processes and terms used in the world of digital assets and cryptocurrency.

How do I buy cryptocurrency and where do I store it?

Wallets and keys

Unlike traditional currency, the cryptocurrency itself not stored or held by its owner. A digital space called a wallet is used to store digitally created keys which allow a person to access and trade cryptocurrency holdings. These can be created by using specialist software or by a virtual currency exchange on behalf of the individual.

Keys are integral to the world of cryptography and cryptocurrency; essentially a key is a sophisticated string of alphanumeric characters that allows a user to send and receive their cryptocurrency. A person has both a Private Key which can be thought of as the PIN which allows access and a Public Key which is the equivalent of an account number that can be shared to send and receive instructions to transact in cryptocurrency.

Whoever has access to the Private Key has access to the cryptocurrency, if the key is lost, the wallet can no longer be accessed preventing any further activity or transactions. If a person obtains the Private Key of another individual, they can undertake transactions as if the cryptocurrency was their own. With no consumer protection rights in place to protect from lost or stolen keys it is imperative that keys are stored safely and securely and third party companies which offer services or hardware solutions to independently hold keys to reduce this risk are available.

Virtual currency exchanges

To buy cryptocurrency you typically need to visit a virtual currency exchange which is an online platform or marketplace that allows people to exchange real world fiat currency for cryptocurrency. Typically, people can make an online payment or bank transfer to the exchange to buy the cryptocurrency which is then linked to their wallet.

Not all virtual currency exchanges allow a user to convert real world currency for cryptocurrency. For those seeking to trade in the more popular cryptocurrencies such as Bitcoin, Ethereum, or Tether this is often the only exchange a person needs to use as many exchanges will allow users to transact between real world and crypto currency.

Due to the level of regulation in some jurisdictions, some exchanges only operate a virtual currency to virtual currency exchange, and don't allow the depositing or withdrawal of real-world currency. Not all exchanges stock every type of cryptocurrency or digital asset in existence, for the more specialist or obscure cryptocurrencies people sometimes need to convert fiat currency to Bitcoin using one exchange and use another exchange to purchase the cryptocurrency they want to acquire.

Once cryptocurrency is held it can be traded by using the exchange itself which can match sellers to buyers or by Person A to Person B directly by the creation of a transaction and the exchange of key data.

Jersey’s digital asset proposition

Due to its long standing legal and regulatory framework and experience with digital assets, firms are using Jersey to deliver alternative investment opportunities:

Investment funds and asset management
The emerging nature of digital assets means that new solutions and opportunities are frequently being developed. In 2014, the Jersey Financial Services Commission (JFSC) approved the launch of the world’s first regulated bitcoin investment fund, GABI Plc, which went on to create Jersey-domiciled CoinShares – Europe and Asia’s largest digital asset manager.

Exchanges
In 2016, the JFSC brought enterprises providing ‘virtual currency exchange’ services under Jersey’s regulatory umbrella.

Custody
Custody relates to the secure storage of the private keys which control the ability to transact digital assets. Jersey based custody firms, such as Komaniu, are able to support on-Island investment firms with additional security measures by independently holding the keys to reduce the risk of unauthorised access.

Tokenisation
Jersey based law firms and dedicated cryptocurrency consultancies have advised firms on how to use Jersey for the tokenisation process and formation of companies to support new digital asset businesses.

What are the tax considerations for digital assets and cryptocurrencies?

The position is complex and each country has a different set of rules and regulations, in Jersey this is covered by the article Government of Jersey – Cryptocurrency tax treatment.

Where can I find more information?

For more information on digital assets and cryptocurrency or fintech visit the dedicated Jersey Finance fintech page.