Digital assets: what you need to know

The rise of digital assets has been so rapid, with terms like 'Bitcoin' and 'Blockchain' added to the lexicon quicker than you can say 'Apple Pay'. You'd have been forgiven for thinking that the concept of a physical wallet – let alone pound sterling itself – was under existential threat. In this, the first of a series of articles on the subject, [Simon Ware](#) from Aztec's Innovation team share all you need to know about digital assets.

OK, so let's start with Bitcoin. The cryptocurrency rose to fame in 2021 following a period of exponential growth. Ultimately it lacked true utility, an issue addressed by later blockchain iterations (the supporting technology) which enabled a more diverse range of functionality beyond that of simpler A-to-B transactional workflows. It's also worth noting that this initial traction was in the unregulated sector, far before gaining more recent institutional adoption.

Blockchain's stock rose off the back of Bitcoin's rise, but as Bitcoin's star faded, Blockchain's functionality and popularity soared, as did the investment universe. Issuers quickly populated blockchain networks with more and more assets, each with distinctive purposes and functionality, ranging from specific currencies for purchasing items on gaming platforms, to more utilitarian means such as enabling voting rights within an organisation.

While such growth inevitably included further cryptocurrencies (known as *native assets*), new digital representations of other real-world assets emerged, creating a second category: *non-native* assets. Here, token holders remain eligible for all the benefits (or liabilities) associated with the underlying assets (such as increasing property values or rental income), as well as the more efficient transaction workflows that traditional assets missed. Much like other assets, these may be recognised as either regulated or unregulated assets, depending on jurisdiction.

Collectively, native and non-native assets have become known as 'digital' or 'crypto' assets, and together have pivoted blockchain's sole initial purpose of

simpler, independent transactions to more complex condition-based exchanges well suited to regulated environments.

But why use a seemingly complex and new technology such as blockchain? What are the benefits to be gained and what use cases can be enabled? What do we mean by the 'institutionalisation' of blockchain?

By exploring key use cases underpinned by blockchain, this multi-part series of articles will demonstrate the key benefits of most relevance to Aztec clients, centred on time, cost and experience efficiencies. In this first article we introduce key terminology and concepts, and what they mean when we're talking about digital assets.

Key definitions we'll refer to in this series

Blockchain: In simple terms, Blockchain may be considered as a publicly operated network enabling processes to be securely and automatically administered. A key feature in its operation is the reliance on group consensus to verify transactions and agree on (but maintain multiple records of) the truth, in place of the few trusted institutions we are used to. As they are processed, transactions are recorded on a distributed ledger, with all participants maintaining a copy. Notably, no one party owns these public blockchains, and anyone can participate in the verification process in exchange for financial rewards.

Despite blockchain's role of recording transactions, it's worth noting that a distributed ledger is in itself nothing new. Originally known as split tally sticks, distributed ledgers have been around for thousands of years as a split piece of wood with each half being owned by separate parties, with transactions being marked across both sticks when reconciled, and any fraudulent entries being immediately visible.

Fast forward a few years and enter blockchain; newer technology means this ledger is now digitally distributed among thousands of participants, with anyone being able to view the full transaction history and resulting balances. The transparency of this approach benefits both security (providing the traceability needed for enforcement of anti-money-laundering) and information sharing, as anyone needing to access transactional data can gain this from the network, rather than having to go through technical integrations.

Mining: Included for clarity rather than of direct concern for GP's. 'Miners' support the network by providing the computing power to process blockchain transactions, in exchange for financial reward. Incentives encourage additional users to participate, thus creating additional copies of the ledger and as such increased consensus, furthering the trustworthiness of data.

Digital representation (tokenisation): Both digital-only (known as native, i.e. bitcoin) and real assets (non-native, i.e. shares, real estate) can be represented using digital tokens, with ownership being easily transferrable between parties. These tokens carry with them "smart contracts" that govern how that token may be traded and interact with other processes. Depending on their intended use, tokens fall into different classifications, which may or may not be securities.

Smart Contracts: With blockchain providing automated processing, smart contracts provide the rules and commands to be processed and are a key element. These strict rules govern how digital asset transactions take place, in the funds world these rules can often be extracted from LPA's. These rules are then coded into a digital format, such as that all investors must be KYC approved by a pre-defined party or hold no more than a defined quantity of tokens, for example. It is then impossible for transactions to proceed without meeting every defined requirement. Given the importance of these rules when handling regulated products, specialists now offer auditing services to ensure compliance.

Fractionalisation: Digital assets (i.e. tokens) are divisible into very small amounts – amounts previously considered too small to cost-effectively process. However, blockchain's automated processing means these can often be processed at a low enough cost to become feasible. Want to get into real estate but the unit price is too high? Buy a quarter of a share! As a pensioner and individual investor do you want to drawdown on your assets on a gradual basis? You can now draw down a fraction of your investment without severely unbalancing your portfolio. Fractionalisation is key for some use cases, as we'll explore later in the series.

Wallets: These are digital accounts able to receive an array of digital assets. A notable feature is that wallets are not managed by an intermediary and are not associated with an individual's identity, so if you have the password, you have control. If you lose the password, there is no intermediary to help recover your access. A range of custodians and wallet providers are now offering solutions to help reduce the risk of loss, including those for regulated assets.

Digital Currency / Stablecoin / Central Bank Digital Currency (CBDC): These currencies are payment tokens that may only exist in a digital form, with some examples tracking the dollar or a combination of other reference points in order to reduce volatility. Some stablecoins are backed by traditional currency and issued by a central authority. Though widespread adoption or even issuance of CBDC's is still in its infancy, these are expected to form the basis of future payments, and can interact directly with digital transactions without the need for reconciliations, further streamlining the transaction lifecycle

Look out for the next article in this series where we delve into some of the specific use cases for digital assets. Meanwhile, if you have any questions, please contact Simon Ware directly.