



Learning Insights

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Regulation Could Help Move Cryptocurrencies into the Mainstream but Regulators Have Been Slow to Step Up

The crypto assets market is rapidly becoming too big to ignore. Cryptocurrencies such as Bitcoin are attracting significant capital inflows and major financial institutions are increasingly interested in crypto as an asset class. However, despite the growing importance of the market, these assets generally fall outside most mainstream financial regulation. Regulators have been slow to introduce targeted frameworks and many key market players operate outside major jurisdictions. For some, this is seen as a key benefit of crypto assets. Increasingly, however, other crypto advocates argue that a comprehensive regulatory framework would help drive growth and development in the crypto assets market.

The global market capitalization of cryptocurrencies hit an estimated \$2 trillion in April this year, before falling to around \$1.6 trillion by the end of July, according to cryptocurrency data aggregator CoinGecko. This represents substantial growth from the market's humble beginnings two decades ago, when Bitcoin traded at around \$0.08 a coin – it trades at around \$44,000 today.

However, even the above estimates reflect a key problem in the crypto assets market – a lack of formalization. CoinGecko's methodology for calculating market cap is not universally accepted and there is no official, public data on cryptocurrencies. Putting a firm number on almost any crypto asset is difficult – even the price of Bitcoin is a matter of some debate, with pricing often based on a small number of trades on unregistered exchanges.

This lack of formality and reliability is one possible reason why the crypto market remains so much smaller than the global bond market, which the Securities Industry and Financial Markets Association (SIFMA) valued at \$124 trillion at the end of 2020, and the global equities market, which SIFMA valued at \$106 trillion in the same period, even after 20 years of growth.

Regulatory patchwork

A key reason for the lack of reliable, comparable, meaningful data about cryptocurrencies is that they have almost universally fallen through the regulatory cracks.

What are crypto assets?



Crypto assets – also known as cryptocurrencies – are digital assets that share five characteristics:

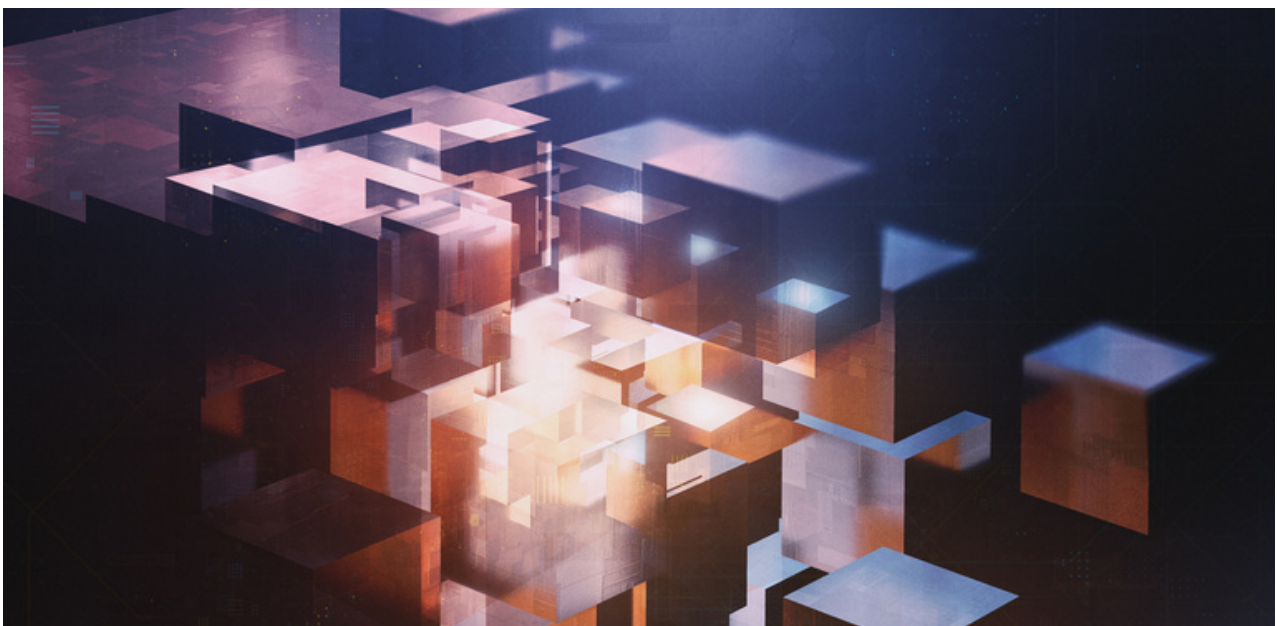
1. They use public key encryption algorithms to allow privacy, anonymity, and security.
2. Their ledgers are generally decentralized – they are not controlled by one single party – and they generally use blockchains to guarantee the immutability of previous records.
3. There are usually certain functionalities written into the code that runs the crypto assets – rules for currency mining, for example, in the Bitcoin network.
4. Advocates argue that, unlike US dollars and other state-backed currencies, they are not “fiat” currencies; they are not backed by – or given value by – centralized governments.
5. They currently fall outside most mainstream regulation.





Consider, for example, the US. US financial markets are characterized by a patchwork of regulation, with multiple agencies splitting responsibility for financial oversight in ways that are sometimes counterintuitive. This can be a benefit – one regulator may catch what another misses and the US has the capacity for flexibility and innovation. However, it can also create confusion and regulatory gaps.

The IRS, for example, treats cryptocurrencies as “property” not “currency,” meaning that crypto owners must keep detailed records of their cryptocurrency transactions and pay taxes on any gains associated with their holdings. Other US regulators, however, have deemed Bitcoin a “commodity,” putting it under the auspices of the Commodity Futures Trading Commission (CFTC), while other crypto players, such as Ripple, have fallen afoul of the Securities and Exchange Commission (SEC), which has deemed XRP (the cryptocurrency associated with Ripple) to be an “unregistered securities offering.”



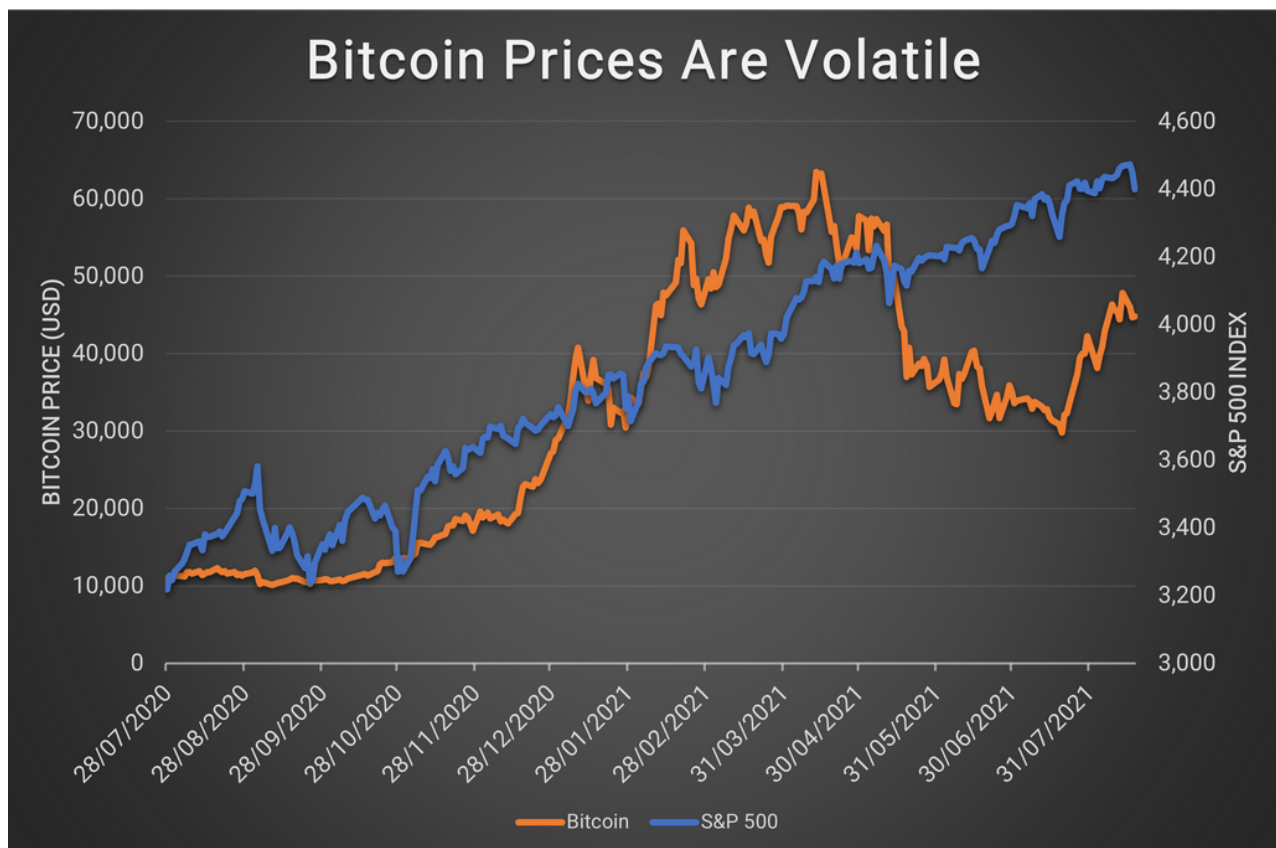
This regulatory uncertainty – echoed in most jurisdictions around the world – has created challenging conditions for cryptocurrencies and their owners. Paying taxes on crypto is a complex business and the IRS has recently moved to tighten rules on reporting and tax compliance, putting a squeeze on some crypto holders. Even those who would like to pay their share of taxes find it difficult to know what to pay in the absence of official data on the value of their coins.

Another issue has been so-called coin exchanges. While networks like the Bitcoin blockchain are secure, self-contained, and governed by strict software rules, many Bitcoin holders want to exchange some of their coins for fiat currency – especially as Bitcoin is not widely accepted as a payment method. To do this, most use third-party coin exchanges to sell their coins for cash, in the process leaving the secure Bitcoin network for the much more vulnerable networks offered by the exchanges.



While the quality of these exchanges is rising, there have been many scandals associated with them. In general, coin exchanges are unregulated or registered in jurisdictions with light regulatory regimes. Issues have included outright fraud, massive digital thefts of the coins held at the exchange, and anti-money laundering (AML) problems. Regulators worldwide are increasingly worried about AML and know your customer (KYC) issues, particularly given cryptocurrencies' popularity with organized crime – criminals appreciate the anonymity offered by digital coins.

Beyond the troubles plaguing individuals and fraud worries, regulatory issues also cause problems in the crypto market itself. In late 2019, for example, Bitcoin plunged to a low of around \$6,600 after the Chinese government announced that it would be cracking down on Bitcoin miners. Recent volatility in the price of Bitcoin – driven by a mix of factors including additional regulatory actions in China – has further highlighted the volatility associated with the asset class.



Source: Yahoo! Finance. July 2021.

Desire for regulatory certainty

Many banks and other financial institutions are interested in crypto assets. There is a mainstream appetite for crypto investment funds and many enthusiasts would like to see greater linkages between the crypto ecosystem and the broader financial system.

This has led to a growing chorus of voices calling for increased regulation of the crypto market. Billionaire investor Mike Novogratz, for example, who led an early move into digital assets, told CNBC that a set of formal rules would be a "relief for the market."





Globally, efforts are underway to provide this relief. In the EU, for example, regulators are considering the Markets in Crypto-Assets Regulation (MiCA), which is intended to provide a framework for issuing, trading, and storing crypto assets. In the US, meanwhile, Senator Elizabeth Warren has asked the SEC whether it has the tools it needs to regulate crypto assets – this is widely seen as a first step in having Congress seriously consider a set of federal rules or guidelines for the market.

Despite these efforts, however, crypto assets remain largely unregulated. Some worry that this creates a serious risk – contagion or problems in the crypto market may spread to the broader financial system and lead to harsh and punitive regulation.

Observers draw parallels between crypto assets and credit default swaps (CDS). In the lead-up to the global financial crisis, the unregulated CDS market grew rapidly. CDS – a hybrid form of insurance that was not regulated as such – fell through regulatory cracks much as cryptocurrencies do now. When the market soured, contagion from CDS put the instruments in the regulatory crosshairs and led to strict rules.

Many crypto enthusiasts would like to avoid this fate by having lawmakers establish rules now, before a crisis threatens the market. Regulators, however, have been slow to step up. Until they do, crypto assets will retain the whiff of the Wild West.

Intuition Know-How has a number of tutorials that are relevant to bonds and blockchain policies:

- [Cryptography](#)
- [Blockchain – Primer](#)
- [Crypto Assets](#)
- [Financial Authorities \(US\) – SEC](#)
- [Financial Authorities \(US\) – CFTC](#)
- [Financial Authorities \(UK\) – PRA & FCA](#)
- [Financial Authorities \(UK\) – Bank of England](#)
- [Financial Authorities \(Europe\) – ECB](#)





Blockchain Bonds Could Slash Costs, But Serious Investment Is Needed to Modernize the Industry

Like trade finance, bond markets have traditionally been manual, paper-intensive, and tech-shy. Outside of large, liquid markets like US Treasuries, fixed income trading is often done over the counter (OTC) and bond issuance involves large volumes of paperwork and manual documentation. New technologies such as blockchain have the potential to revolutionize these old-fashioned processes and several proof-of-concept blockchain bond issues have shown the cost-cutting and efficiency-boosting potential of new tools. The true test, however, will be whether market participants are willing to make the investments necessary to transform the bond market.

In April 2021, the European Investment Bank (EIB) launched a digital bond issue on a blockchain platform. The EIB, in collaboration with Goldman Sachs, Santander, and Société Générale, used a distributed ledger to register and settle a €100 million, two-year bond issue.

Interestingly, the EIB partnered with Banque de France to have the payment of the issue monies from the underwriters represented on the blockchain in the form of a central bank digital currency (CBDC). The banks that syndicated the bond paid for digital bond tokens that were registered on the public Ethereum blockchain network. The EIB then used Banque de France's CBDC to settle the bond with the arrangers.

The EIB transaction was just the latest in a string of blockchain bond and debt instrument issues. Also in April, for example, Société Générale issued a structured product using blockchain, and Vonovia, UnionBank, Standard Chartered, and many others have all been involved in digital bond issues.

In all the above examples, the securities in question – bonds, notes, or structured products – were issued not in the form of physical certificates, but rather as digital records on a publicly permissioned blockchain ledger.

What is blockchain?



A blockchain is a database or ledger composed of a timestamped and immutable chain of records that grows as new records – known as blocks – are added. Each block contains some type of information – transaction data, for example – as well as a timestamp and cryptographic information.

The key characteristic of blockchain – and what distinguishes it from other ledgers – is that blockchains reside on multiple computers at the same time, rather than on a single, centralized server. Each node (computer) on the network has a copy of the entire blockchain/ledger. Therefore, blockchain is sometimes known as distributed ledger technology.

In addition, the ability to add new blocks is generally limited in some way – on some blockchains, nodes must solve a mathematical puzzle and share a “proof-of-work” before they can validate and add a new block, while other blockchains give certain nodes voting rights that enable them to add new blocks. When new blocks are added, each node receives a copy of the new block, verifies it, and then adds it to its local copy of the blockchain.

Blockchains use decentralization and cryptography to protect against fraud and ensure data security and integrity.

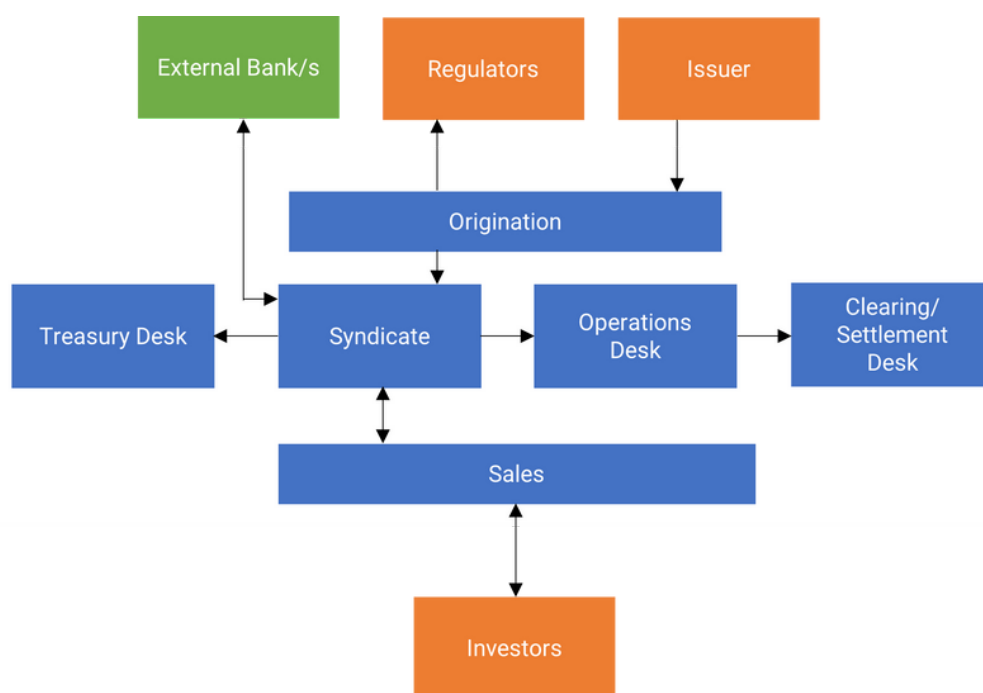


Blockchain benefits

Widespread interest in blockchain bond issuance is being driven by the desire to improve efficiencies and lower costs in the traditionally bureaucratic and decentralized bond market.

In traditional bond issuance – and, indeed, securities issuance more broadly – the process is manual and paper-intensive. Multiple players are involved, and there is significant record-keeping redundancy across the network of participants, which necessitates expensive and time-consuming reconciliation between their different systems. The diffused process also leads to a long clearing and settlement cycle – generally T+3 – creating high levels of settlement risk. The number of intermediaries also creates high costs as issuers and investors incur fees at multiple points in the process.

Overview of Securities Issuance Process



Source: Capgemini. *Blockchain Disruption in Security Issuance*. 2017.

The use of a decentralized and secure ledger or database – a blockchain – dramatically reduces the number of intermediaries involved in bond issuance, as well as reducing ongoing custody and asset servicing costs. Blockchain enables near real-time bookbuilding and removes the need for reconciliation as all participants have access to the same immutable transaction ledger. Settlement risk is slashed thanks to rapid clearing and settlement and the reduction in intermediaries eliminates many fees.





A 2020 study by German FinTech firm Cashlink and custody provider Finoa found that using tokenization (issuance in the form of digital tokens using a blockchain platform) rather than traditional securitization could achieve costs savings of 35% to 65%. While pre-issuance costs, such as the legal fees involved in structuring an issue, were comparable for both tokenization and securitization, all other costs were substantially lower for tokenization, including custody services, trading costs, and so on. Furthermore, the strong cryptography associated with blockchain adds a layer of data protection and cybersecurity to the issuance process.

Some observers are particularly excited about the potential of blockchain bond issuance to revolutionize capital markets in emerging economies. By reducing costs and slashing the number of intermediaries involved, blockchain issuance could open up the bond market to small and medium enterprises in emerging markets, which have traditionally struggled to secure the funding they need.

Roadblocks

While blockchain technology offers many advantages, uptake in bond markets has been relatively slow. Most issues to date have been prototypes or proofs-of-concept and few have resulted in the creation of long-term issuance platforms.

One key roadblock is regulation. The EIB issue described above was done in France because French law allows for the registration of digital securities to be recognized as financial securities. Few other jurisdictions allow this, limiting opportunities for tokenization – this is especially true in emerging markets, where regulators have generally been slower to implement technology-enabling rules.

Another is investment. Financial market players will need to invest significantly in new platforms and tools to make blockchain issuance the norm rather than the exception. Protocols and standards must be developed, and institutions must agree on a range of technical and procedural details.

Blockchain has the potential to transform bond issuance. By lowering costs, it could democratize access to finance and create more efficient capital markets. However, until governments create enabling regulatory environments and market participants make the necessary investments, blockchain bond issuance risks being a novelty rather than a mainstream capital-raising option.

Intuition Know-How has a number of tutorials that are relevant to bonds and blockchain policies:

- Bond Markets – An Introduction
- Bond Markets – Issuing
- Bond Markets – Trading
- Cryptography
- Blockchain – Primer
- Crypto Assets
- US Bond Market
- UK Bond Market
- European Bond Market
- Japanese Bond Market

