



# NAVIGATING THE DIGITAL ASSET ECOSYSTEM

By Kaj Burchardi, Jürgen Rogg and Henri Dethier

**D**ESPITE GENERATING CONSIDERABLE ENTHUSIASM, blockchain and cryptocurrencies—more than other emerging technologies—have presented head-scratching dilemmas. Will there be a dominant platform or protocol? How can you benefit from network effects? Will new standards promote levels of interoperability? Addressing those questions might be a slow process, but it will lead to the emergence of digital assets. Digital assets—unlike cryptocurrencies—should be taken seriously by financial industry leaders.

Digital assets are not only estimated to become the biggest financial asset class, with 13-digit market capitalization by the end of the decade, they could also bring as much financial innovation as the explosion of derivatives and structured products in the 1980s. For financial institutions and their customers, they could increase market liquidity, transparency, accessibility, and at the same time reduce transaction costs and associated risks dramatically. Furthermore, new products and services could be developed that benefit from core

blockchain properties, for instance via smart contracts. As a result, the rise of digital assets is likely to prove those wrong who imagined blockchain uniquely useful as a particular type of database, without the need of a network-wide digital asset.

Don't be fooled: This will not only involve cryptocurrencies and the existing cryptomarket, which is still a niche market with a market capitalization of less than €500 billion<sup>1</sup>. After all, there is a chance it will stay a niche market due to failed enterprise and market adoption as well as a lack of regulatory frameworks. Except for Bitcoin, and potentially Ethereum, the trust in the majority of those cryptoprojects has actually eroded, and enterprise partnerships have been halted. The situation is even worse considering the hundreds of billions invested in ICOs—the cryptocurrency equivalent of IPOs—that instead of fueling adoption have been converted back to fiat currencies rewarding only the audacious early blockchain entrepreneurs. So far, the only major successful legal companies that have benefited from the

cryptomarket were mining hardware providers, such as Bitmain or Nvidia, and wallet and exchange providers, like Coinbase or Binance.

## What Can Unlock the Potential of Digital Assets?

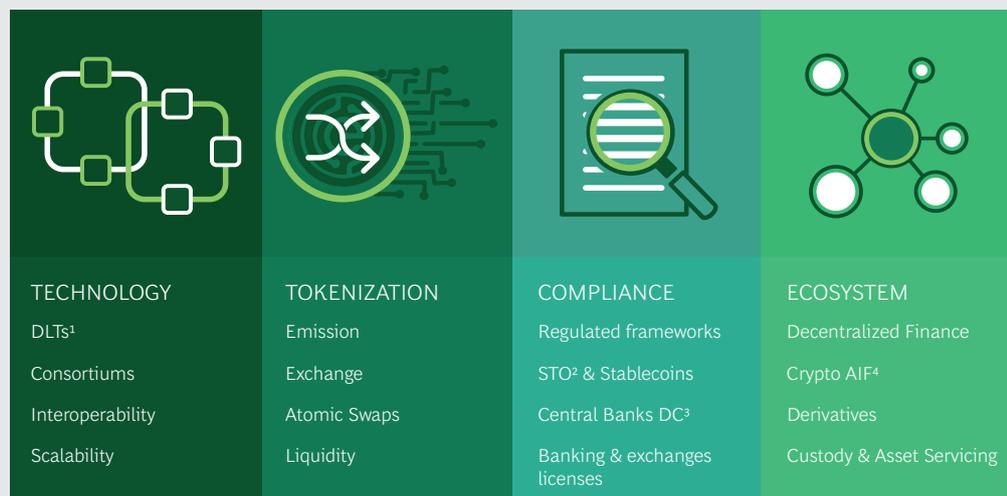
In terms of categorization, cryptocurrencies are not excluded from the digital asset family; they represent a limited subset of it. Certain factors unlock the potential of digital assets and distinguish them from original cryptocurrencies. We have identified those factors and grouped them into four areas:

1. *Technology:* Digital assets can now be deployed to regulated, interoperable, scalable, and enterprise-friendly distributed ledger technologies (DLT), as opposed to the public blockchains. These DLTs can be considered hybrid deployments, as the blockchain ledger is just one component so that those platforms are easier to integrate with company IT infrastructure; for example with R3 Corda, Hyperledger Fabric, or Kaleido. As a result, clear governance, identity, security, and implementation frameworks can be embedded by design. This in turn offers compliance

and legal guarantees to financial authorities. The majority of European and US financial institutions have already joined blockchain consortiums that would facilitate the exchange and emission of those assets.

2. *Tokenization:* Cryptocurrencies have no intrinsic, convertible, or pegged value, which explains most of their volatility. On the other hand, digital assets are mainly emitted by tokenizing an underlying asset. Tokenization works by representing an asset with divisible, digital tokens with money-like properties (medium of exchange, storage of value, and unit of account). Those are then deployed to a blockchain network for security and verification purposes. Once the emission is complete, those assets can be swapped on a primary or secondary market exchange that has the necessary infrastructure to realize the trading, settlement, and custody of these assets. Among the leading exchange projects are SIX Digital Exchange (SDX), to be launched in 2021 in Switzerland, Deutsche Börse (in collaboration with Swisscom and Sygnum), or ICE Futures & Clearing (Bakkt) and Fidelity Digital Assets (FDAS) in the United States. All are

EXHIBIT 1 | Four areas unlocking the potential of digital assets



Source: BCG analysis

<sup>1</sup>Distributed Ledger Technology <sup>2</sup> Security Token Offering <sup>3</sup> Digital Currency <sup>4</sup> Alternative Investment Fund

working on regulated digital asset market infrastructures. Other players are offering the infrastructure as a service like Nasdaq or AlphaPoint, to name a few.

The following underlying assets could benefit from tokenization:

- Traditional financial assets, such as fiat currencies, shares, or bond.
  - Illiquid financial assets, such as real estate mortgages and insurance products.
  - Nonfinancial assets, such as commodities.
  - Intangible alternative assets, such as pieces of art, patents, certificates, or intellectual property.
3. *Compliance:* Beyond the trading and storing of cryptocurrencies, the legal status of cryptocurrency financial services and operations remains unclear, let alone the various fiscal categorizations between European countries. Therefore, the new foundations and the deployment of the digital asset infrastructure and products are being implemented in a compliant manner by all financial utility providers: market operators, exchanges, banks, technology providers, central banks, and local financial regulators. The green light of the latter is mandatory for the issuance, exchange, and thus institutional adoption of these assets.

This will enable existing cryptocurrency concepts qualified as “stablecoins” (pegged or convertible to one or a basket of “stable” assets) or “STO”<sup>2</sup> (issued token representing a share of an asset like a security and categorized as such) to gain a proper legal status and framework. As a result, the emergence of legal frameworks will help to define, classify, and regulate those assets when issued, exchanged, or converted back to fiat currencies. In addition, rising compliance and security standards for

storage and custody solutions offer clients the right balance between trust and control for their digital assets.

On the asset management side, crypto-AIFs (alternative investment funds) are already regulated and crypto-ETFs (exchange-traded funds) are on the path to legalization. Also, while traditional financial institutions clear the way to extend their offering to include digital asset products, emerging native digital asset brokers and exchanges receive their first banking and trading licenses; for example, SEBA Bank in Zug, Switzerland.

Altogether, this evolution will not just provide the legal and practical means to portfolio managers and institutional investors to diversify a percentage of their portfolio directly or indirectly into digital assets. It will also enable digital assets to become a viable part of capital markets.

4. *Ecosystem:* As mentioned, financial institutions, capital market operators, and regulators have gained enough maturity in the tangible benefits and risks of blockchain and DLTs for the emergence of an end-to-end digital asset ecosystem. For exchanges and operators, trading, clearing, and settlement is now possible in seconds thanks to “atomic swaps”. Those smart contracts cryptographically solve the problem of the counterparty risk of a transaction without reconciliation costs: The blockchain ledger offers trust as an independent “triple-entry” accounting system recording all transactions and state changes of the network.

Also, banks and other financial intermediaries see the potential of automating consolidated reporting and compliance, posttrading, custody, and asset servicing. Furthermore, interest is rising as digital assets also offer formidable opportunities in terms of derivative products like options, futures, collateralized lending or staking. The latter works by rewarding the holders

with a “dividend” for verifying operations on the blockchain. For instance, Bakkt Bitcoin futures exchanges, fully regulated and limited to institutional investors, have gained a lot of momentum recently. While still relatively small, volumes are growing (\$1.8 billion for Q1 2020, +177% compared to Q4 2019)<sup>3</sup> and interest rates are rising. Bakkt has recently launched the equivalent for options. Portfolio and asset managers are observing the low correlation that such assets have with more traditional assets and are starting to understand the unique value and risk drivers of those assets, such as higher security, more privacy, scalability, and a decentralized web.

Even central banks are now testing their own tokenized currencies, central bank digital currencies (CBDC). For them, digital currencies, such as digital euros, would have the double advantage of enabling exchanges and allowing their customers to keep digital assets in a stable form without converting back to fiat—and at the same time influence the digital asset market stability.

## Key Next Steps for Navigating the Emerging Digital Asset Ecosystem

- **Understand the remaining obstacles to adopt the right approach**

Despite the recent announcements and ongoing projects, it is likely to take years to deploy these platforms and grow the networks and surrounding ecosystems. To accelerate this growth, common and recognized technical standards for exchange, communication, and data transmission would be needed. But they are hard to implement in mainly decentralized and open-source projects. In addition, as financial and payment intermediaries living from transaction costs or legally protected and exclusive offerings now fear disruption, they might try to come up with alternatives, creating additional technological confusion in the market.

Even basic concepts of what constitutes a “real” blockchain and what doesn’t are still disputed. [We advocate a technology-neutral approach](#) where the decentralization, distribution, anonymity, and accessibility aspects of the DLT should depend first and foremost on the use and business case.

The remaining hurdles concern the lack of interoperability and the absence of integration between different DLT and blockchain networks. Furthermore, even conceptual integration is still not enough as cross- and multiblockchain operation and scalability requirements are not met for the majority of the use cases. As a result, sunk costs rise for financial intermediaries having to adapt their infrastructure to one platform and later start the process from scratch for a new technology. Here we can observe that Ethereum has lost ground to Hyperledger and Corda in the enterprise space. The reconciliation and adaptation of the core banking systems, public registries, and even (banking) ledgers to these new systems remains a complex issue.

- **Dare to innovate and commit to end customers**

The absence of standards and maturity has the benefit that technological entry barriers remain low. In addition, given the lack of skills and expertise in this market, developing solutions ahead can lead to sustained competitive advantage in the emerging digital asset value chain. Such a commitment can earn you the rewards of shaping the industry and developing proprietary technology way ahead of the competition—especially in the blockchain consortiums that set up governance, policies, and standards. The danger of not moving ahead is increasing, as the technology is moving fast, from limited experiments to market adoption. Digital assets will also blur the line in the financial industry value chain, strengthening the current trend of tech companies entering this market by offering new services. The commitment must go beyond offering

the same services for digital assets as for traditional assets. Particularly in the context of digital assets, forgetting the new roles of customers and retail market could turn out to be a huge mistake, as this technology enables disintermediation and empowers the active and direct involvement of the end user, as opposed to traditional assets and securities. This explains why new digital players like Revolut, eToro, or Robinhood swiftly added digital assets services to their offerings.

- **Partner to benefit from network effects and shape the ecosystem**

Finally, even if this infrastructure is developed, the applicative and product marketplace offerings are still missing or remain more unclear than the Internet was in the late 1990s before Google, Facebook, or Amazon. This will require new market dynamics, further ecosystem collaboration, and even integration. Some of the strong cryptocurrency niche platform players, like Ethereum, Cardano, Tezos, Ripple, or WEB3, could be useful partners for more traditional players given their accumulated experience. Indeed, those players have unique communities, skills, channels, and values that could help traditional players to differentiate in that market. Financial intermediaries could complement these decentralized platforms with their access to traditional stakeholders, holding and transacting traditional assets. Overall, beyond digital assets, financial institutions will need to partner and think differently to seize the benefits of decentralized finance and open banking, without getting disrupted in the process.

## The Path to Success

Digital assets will offer major opportunities for financial markets. The potential success of the upcoming second wave of blockchain platforms, applications, and digital assets could enable most financial institutions that missed or ignored the cryptocurrency bubble to benefit from this

late-mover advantage. Even despite increased pressure in terms of compliance and data security, financial institutions could also be backed up by regulators, finally starting to catch up with the technological pace.

To do so, decision-makers in financial institutions should grasp the opportunities of digital assets to adapt and provide new offerings. They will need to develop a clear strategy and mature potential use cases. As a result, real commitment and lean execution is required. Some will have to reconsider their stance both on cryptocurrencies and blockchain.

In terms of approach, financial institutions need to find the right balance between the fear of sunk costs and the risks of adopting a wait-and-see approach. The right approach is to test multiple opportunities in parallel with concrete MVPs<sup>4</sup>, limited in cost and scope but oriented toward clear learning milestones and success criteria. If they are reached, more budget and focus should be allocated to selected strategic projects. Setting up dedicated internal task forces or “spin off” teams to work on those projects can strengthen the commitment and turn them into refined use cases with potential profitable business cases. This approach can be complemented and accelerated with a detailed understanding of market dynamics and the ecosystem to establish the right partnerships early on.

### NOTES

1. As of May 2020. Source: Finoa: Digital Asset Growth; BCG analysis
2. Security token offering
3. 2020 Q1 Cryptocurrency Derivatives Exchange Industry Report, TokenInsight
4. Minimal viable product

## About the Authors

**Kaj Burchardi** is a Managing Director & Partner and head of BCG Platinion Netherlands. He is the global lead for the Blockchain topic at BCG.

**Jürgen Rogg** is a Managing Director & Partner in the Zurich office of BCG. He is the global leader of Boston Consulting Group's Digital and Technology in Financial Institutions topic and leads BCG's Technology Advantage practice in Switzerland.

**Henri Dethier** is an Associate and part of the Technology Advantage practice in the Zurich office of BCG. He has previous work experience in the blockchain and cryptocurrency industry.

## For Further Contact

For inquiries about this publication, please contact us by email at: [burchardi.kaj@bcgplatinion.com](mailto:burchardi.kaj@bcgplatinion.com), [rogg.juergen@bcg.com](mailto:rogg.juergen@bcg.com) or [dethier.henri@bcg.com](mailto:dethier.henri@bcg.com)

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