Financial Technology (FinTech) as a Driver
for Financial Digital Assets

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Abstract

Nowadays, we frequently encounter the term of "digital assets" within the financial market's terminology and media. As this native asset class is maturing, the uncertainty with regards to the underlying value, remains. The cause is clearly the agitated history that transcended the space of cryptocurrencies, which during its evolving stages, created confusion and misconceptions with regards to the purpose and

viability of digital asset classes across various industries.

In order to understand the real potential of digital assets and its underlying technology, it is important to clearly assess and classify this novel assets class, outlining the benefits for all financial actors and institutions, before projecting the future of finance around Blockchain and Distributed Ledger Technology (DLT).

This paper will focus on the evolution of financial digital assets and the impact Financial Technology played in the adoption of novel financial services as a new emerging asset class within the Alternative Investment Spectrum.

Key words: FinTech, Digital Assets, Innovation
J.E.L. classification: G23, F63, E47

1. Introduction

It's important to start with the acknowledgement of Financial Technology (FinTech) Companies which spearheaded the advancements of Blockchain and DLT for various business models and financial services, promoting crypto assets within the digital assets field.

FinTech led a truly disruptive movement in various sectors of the financial and monetary system, from micro payments, remittance and lending, to various types of insurance policies, crowdfunding and asset management. It was this movement that validated new paradigm shifts with the formation of crypto assets (Mehdiabadi et al., 2020).

By means of accessibility and advancements of mobile phone technology, cloud computing, big data analytics and blockchain, new financial services allowed participation for any individual with access to internet to evolve and diversify in a faster, cheaper, more transparent and more efficient way than traditional financial banking services.

2. Literature review

According to the research of Lichtfous et al. (2018) entitled "Can Blockchain accelerate financial inclusion globally?", the remittance and payments industry can be revolutionized with the introduction of blockchain and distributed ledger technologies. Empowering financial inclusion by means of digital currencies, many migrant people can benefit from this progress as the current remittance options have three major burdens: high fees, long settlement times and low usage.

As the interest of this article is towards financial digital assets, it's important to classify crypto assets as new asset class. In this perspective, the research conducted by Lee, DKC., Guo, L., and Wang, Y., (2018) confirmed the allocation of crypto assets within the spectrum of Alternative Investments as they compared the characteristics and specific components of cryptocurrencies to the traditional asset classes by examining the static correlations between them, as well as the dynamic conditional correlations.

The results showed that the Cryptocurrency Index (CRIX), which encompasses the major crypto assets, can be a viable option to help diversify portfolio risks. This portfolio allocation is recommended due to the correlations between cryptocurrencies and traditional finance assets which are consistently low, opposite to the average daily return of the crypto assets, which are bigger than traditional investments. The study concluded that the plots of the efficient frontier illustrate that incorporation of the CRIX significantly expands the efficient frontier relative to traditional asset classes alone.

3. Research methodology

A theoretical research methodology was applied in order to identify various models and trends within the industry, combined with an empirical qualitative approach that was used to validate the findings and conclusions within this article.

The qualitative thematical analysis is necessary for a better understanding of the characteristics and components that define Digital Assets as a Novel Standalone Asset Class.

4. Findings

Mobile Adoption and E-Payments
The mobile industry expanded greatly within the last decade and digital connectivity achieved new milestones as new market players and innovations were introduced. With this expansion, we could see network coverage and internet speeds improve, mobile devices become more affordable and accessible, helping the financial excluded individuals and institutions to find new alternatives (ADB, 2016).

GSM Association which represents the interest of more than 750 mobile companies worldwide, presents within their reports that the year of 2019 was a stepping stone towards a digital future, as the number of mobile money subscribers topped one billion and industry trends showed that digital financial transactions are becoming part of everyday life for more people around the world. (GSMA, 2019).

Digital Identity Systems
All financial institutions within the space know that an extensive compliance process, with Due Diligence (DD), Know Your Customer (KYC) and other identity verification services, is tedious and inefficient, especially with the current data and privacy policies in place.

An alternative came with the improvements of Digital Identity System, where the identity of a user are represented digitally by a set of records. This novel infrastructure makes it easier for companies to intermingle data in a very safe and secure environment. This sector acquired great interest from governments around the world, as FinTechs as working closely with these entities for a proof of concept with regards to biometric ID programs.

According to a Deloitte report (2019), Digital Identity is the representation of the proof of identity in a digital format. Think of biometrics in the form of iris scans, dental records, facial patterns, voice and fingerprints, stored in an encrypted electronic environment, that brings efficiency over the traditional identification processes. These processes can be performed faster, cheaper and more reliable than any existing identification system, which will enable higher financial inclusion.

Currency Digitization

Blockchain along with the Distributed Ledger Technology have introduced new concepts for reducing fraud and counterfeiting, especially within the realm of currencies. These novel ideas and implementations have stirred up the attention of Central Banks around the world, as Digital Currencies have the potential to improve transaction fees, oversight and transparency.

A perfect use can that FinTech adopted in the early stages of development, was remittance services, as blockchain and cryptocurrencies have the potential to facilitate and process small amounts of money with great speeds and low costs.

A massive research is ongoing for Central Banks Digital Currencies as they can remove the costs and fees associated with clearing houses, credit and debit card providers, and banks, thus removing the need for all of third-party intermediaries (Chiu et al., 2020).

Financial Literacy Programs

A better understanding of financial services and offerings can help individuals and institutions see the value of accessing financial world systems.

Ramakrishnan (2012) researched financial literacy from a financial inclusion stand point and he concluded that most of the debt problems start as consequence from the concept that individuals and institutions undertake loans that they can't repay, because of their poor familiarity and interpretation of financial market products, especially risks and rewards understanding, in order to make an informed decision.

Financial education enables everyone to make effective choices and to avoid distress in financial disturbances or crises.

Financial Literacy goes beyond information and financial advice as it plays a major role in the financial well-being towards important financial goals and reduces risks of market failures (Popescu AD., 2019).

### Financial Technology Innovation for Digital Assets

Digital Assets are the latest technologically introduced innovations by means of Blockchain and DLT, that are driving a revolution and new paradigm shifts within Financial Services.

This technology is changing the way we manage and create wealth, along with the interaction between users and money or financial products.

Spulbar and Birau (2019) also researched the implication of Financial Technology as a disruption force, focusing on the banking system which represents a fundamental pillar of the economic growth and macroeconomic stability, especially in the context of globalization.

The banking ecosystem is affected by continuous changing dynamics of the international banking architecture and financial environment, especially when financial digital assets are driving a new value proposition, by providing the option to have the full services of a bank without having any type of intermediaries. With this type of proposition come new type of risks. This being said, clearly the traditional banking system remains a trusted financial player by all participants even if they were to adopt all the new crypto asset classes as custodian.

Figure no. 1 Financial Digital Assets as Core Institutional Offering and Novel Asset Class
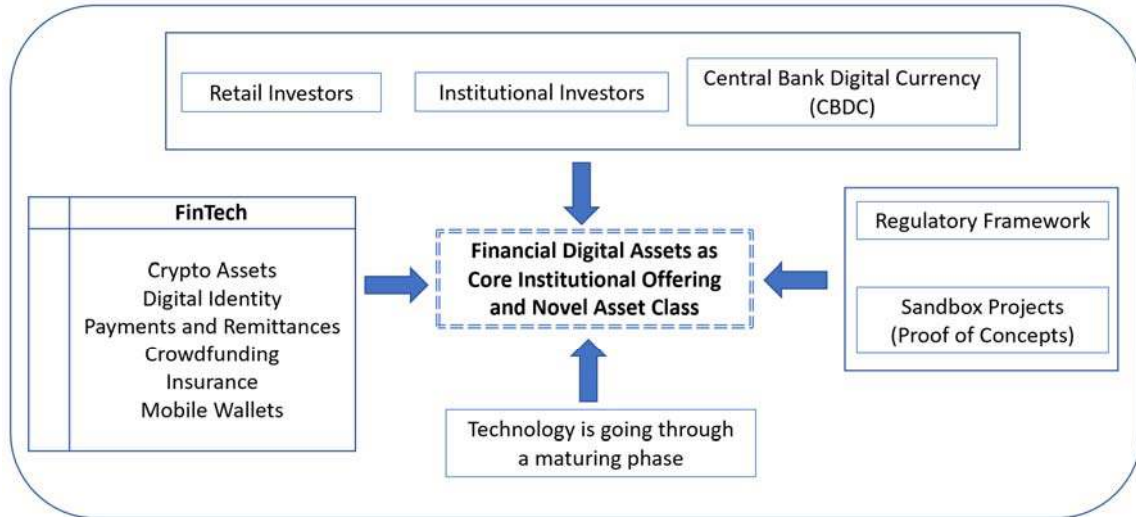
Source: Author's contribution

There is much interest within the space by institutional investors, FinTechs and Central Banks, and this is the key factor that drives evolution to the next phase for Financial Digital Assets as a Core Institutional Offering and a Novel Asset Class.

Distinguishing Utility from Securities Tokens

The Swiss Financial Market Supervisory Authority (FINMA, 2018) released, as one of the first regulatory attempts to offer clarity to the crypto sector, a guide where three major categories were established for crypto assets:

1. **Payment Tokens or Cryptocurrencies** – Referring to the main function as means of payment. Here we distinguish cryptocurrencies like Bitcoin, DASH or Litecoin;

2. **Utility Tokens** – Referring to the tokens which have as main purpose, a function or an attribute, that gives rights to a specific application or service. Here we distinguish tokens like Binance Coin, Lisk or Zilliqa;

3. **Security Tokens** – Referring to tokens that entitle, or give rights to its holders, to the underlying assets in forms of dividends or interest payments. These tokens are essentially digital, liquid contracts for fractions of any asset that already has value, like real estate, stocks, equities or any other alternative asset that can be tokenized.

Denominating fractional ownership of a real asset by means of security tokens is an idea that is widely circulated and brings more structure for investors as they can benefit from the transparency, liquidity and immutability that blockchain technology is offering.

FINMA offers as a guideline these type of tokens, but hybrid forms and mixed versions of these categories are possible.

5. Conclusions

Crypto assets, smart contracts, and digital assets in general, have already fundamentally changed the way many people interact with money, manage their wealth, trade on markets, and the invest in different assets. These changes have improved along with the FinTech sector and optimized the way in which people connect with established or emerging markets, providing and even improving the tools for different financial instruments. But blockchain has also brought entirely new asset classes, with new considerations, and new complications.

These advancements and novel interactions of blockchain and DLT, has made it possible for us to tokenize most of the alternative assets we can think of. One major hurdle that requires the attention of all market participants evolves around the taxation and regulations area, which is still under scrutiny.

Our world is a constant evolution and as we progress towards further forms of digitization like tokenization, digital identity, digital ownership, digital assets, today's financial institutions (and not only) will have to adapt. The internet brought a similar wave of disruption that changed dramatically the way we are informed and publish information, with blockchain, financial services may extend as decentralized services and other decentralized financial instruments may become the norm. With the introduction of financial digital assets, the accessibility, efficacy, transparency and availability of investment opportunities will increase dramatically. These new asset classes will fundamentally improve how people, money, financial services and providers are linked.

The tokenization of assets offers promising possibilities for new methods of capital raising. Novel fundraising vehicles, such as STOs, provide a higher degree of regulation and transparency for investors. Further, STO is an efficient and more transparent method to raise capital from a bigger investment pool than it has been possible with traditional fundraising methods. It is, however, still in infancy stage and market adoption will still require some time.

Decentralized Finance (DeFi) promises a new parallel and more transparent Financial Ecosystem as per the Traditional Finance World. We have seen the DeFi progression that spread with a speed rarely seen in any other sectors, across financial industry sectors from payments, to banking, lending, investing, and insurance. There is also transformation within financial institutions as they mutualize data through digitization and standards, share that data and workflow on blockchains and move small elements of business logic into tokens, bringing more efficiency to traditional business models. We are seeing a very intense and emerging ecosystem powered by financial incumbents, FinTechs and Artificial Intelligence (AI) companies that focus their research on decentralized autonomous digital financial assets.

While it's true that FinTech organizations are disruptive, there's more to the equation. When they choose to combine forces, banks and FinTechs can create new financial products and channels that better serve existing clients and help expand outreach.

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