



Market Manipulation in Digital Assets

March 2021



Market Manipulation in Digital Assets

The market capitalization for cryptocurrency hit a record of US\$ 1 Trillion in 2021—a 1000X increase from US\$ 1 Billion in 2018¹, and as much as 90% of its trading volume could be a target of manipulation².

Digital assets, a relatively new asset class, have been touted as the catalyst for change in financial markets, but with innovation comes a renewed concern for investor protection that needs to be addressed.

Digital assets are cryptographically secured assets which exist only in a digital form, and typically maintained in a distributed ledger technology (DLT). They include, among others, cryptocurrencies, stablecoins, central bank digital currency (CBDC), initial coin offerings (ICOs), security token offerings (STO), digital asset exchange-traded funds (ETFs), and decentralized finance (DeFi). Some of these digital assets are traded similarly to traditional securities and derivatives products but differ primarily in their operational features

What differentiates digital assets from traditional traded instruments?

Some of the fundamental differences that we can point out between digital and traditional traded instruments are down to factors such as *ownership*, *custody* and *exchange*.

Traditional instruments are owned and maintained by central intermediaries in private ledgers, compared to digital assets that are maintained in de-centralized digital ledgers with no one entity having complete ownership or control over the asset.

Digital assets are traded on an “exchange” or a private platform that is globally accessible and has high

availability all year around. With regulatory regimes still under development, requirements for establishing and managing digital assets exchanges today vary significantly from one jurisdiction to the next. This has created a multiplicity of venues where digital assets can be traded, and this market fragmentation impacts the accessibility and liquidity of these assets. The operational characteristics together with the associated high accessibility and fluctuating liquidity makes the digital asset marketplace uniquely prone to investor abuse and market disruption.

What are some of the most relevant manipulative behaviors observed to date in the digital asset market?

Inconsistent and sketchy regulatory guidance, coupled with the unique characteristics of these new assets and their market structure, makes them highly susceptible to abusive practices impacting investors and markets. This article will focus primarily on some common market manipulation schemes witnessed in the digital asset market to date, including *pump and dump*, *spoofing*, *layering*, *wash trading* and *cross product manipulation*.

Behaviors like spoofing and layering, are hard to detect due to the decentralized nature of the digital asset marketplace. Cross product manipulation is particularly magnified in cryptocurrencies, given the large number of exchanges at play and the challenges surveillance and supervision teams to look across multiple spot and future crypto markets.

Pump and dump schemes, witnessed during periods of high liquidity, are very relevant given the bullish market sentiment around cryptocurrency. Wash trading is also applicable in the crypto markets and is carried out through creation of ghost accounts or other deceptive means which inflate volume. The concern around volume inflation is not unknown to capital markets, but it is significantly greater in the crypto markets. The rapid growth and dynamic market sentiment around these assets is providing greater incentive to inflate volume through manipulative schemes, and its effect is multiplied given the large number of coins (4000+)¹ and venues available (300+)³.

Further, organizations have started raising capital through ICOs which have witnessed multiple instances of manipulation such as false or misleading signals and other forms of price manipulation.

Newly created financial products create new opportunities for manipulation. Since these markets are

still developing, the industry and regulators continue to focus on maintaining a balance between promoting market growth and protecting market integrity and investor interests. Moreover, the fast-paced nature of digital assets, combined with the rapid evolution of technology, makes it harder for regulators and exchanges to keep up with the evolving disruptive schemes and manipulative behaviors. Considering the nature of the digital asset market, advent of institutional players, and the potential for manipulation, we can expect to see an uptick of both regulatory actions and surveillance activities to address market challenges.

How is digital assets surveillance different from traditional surveillance?

Surveillance for traditional instruments has significantly advanced with respect to conventional market manipulative behaviors in exchange traded and over the counter instruments. However, surveillance for digital assets has all but started. The complexities inherent in the digital asset market structure make surveillance more challenging, for both the known as well as unknown manipulative behaviors.

A market participant can hold multiple accounts across several venues. This allows for manipulation schemes like *spoofing* or *wash trading* to be executed from different accounts across venues, since there is no way to detect if accounts are owned by the same individual.

Unavailability of personal user information is another challenge. The underlying technology, that drives digital assets, publicly records transactions but keeps user information anonymous. This impacts the effectiveness of digital asset surveillance and enforcement measures, as they fail to identify the bad actors in the market.

Lastly, the distributed nature of this marketplace makes trade surveillance very demanding. Digital asset exchanges work independently without being governed by a common forum, resulting in a highly fragmented market. The same digital asset can be traded on multiple exchanges, allowing traders to enter dummy orders on one exchange and executing the desired transaction on another exchange. In absence of a common forum, such a market event is difficult to detect, making cross-market surveillance very taxing to implement.

One of the potential solutions being discussed in the marketplace is the establishment of a central governing body, or multi-exchange working groups, that can intermediate between digital asset venues and implement cross border information sharing. Such a

structural change could also help to introduce further transparency in the digital asset marketplace through shared surveillance frameworks. The feasibility of such a market structure change is yet to be ascertained.

From a supervision and oversight perspective, it is evident that regulators are striving to monitor and counter suspicious market behavior in real time in digital assets. It is also a top priority for exchanges who are looking at upgrading their surveillance infrastructure by harnessing advanced technologies, such as machine learning and big data analytics aimed at detecting digital assets manipulation. Machine learning can aid with the identification of suspicious behaviors through anomaly detection algorithms, whereas big data analytics can support real time processing of vast amounts of data.

How is the regulatory landscape for digital assets evolving from self-policing and AML-focused regulations to trading, market abuse, and surveillance?

Until now, market behavior of digital assets were largely self-policed and initial regulatory inroads were focused on anti-money laundering (AML)/ know your customer (KYC) compliance. Regulators are now shifting their focus towards the active protection of investor interests, market integrity, stability, and transparency; thereby, making market surveillance an integral part of the new licensing regimes. The regulatory attention and direction, although welcomed, is coming through with its own set of challenges.

Digital assets' venues are globally accessible which has led to multiple regulators asserting their position on their respective jurisdictions. The fact that regulators around the globe can and do categorize and treat digital assets differently has led to creation of a complex regulatory landscape. For instance, in the US, the Securities Exchange Commission (SEC) treats digital assets as 'securities', the Commodity Futures Trading Commission (CFTC) treats them as 'commodities', the Internal Revenue Service (IRS) treats them as 'property', while the state regulators provide oversight through state money transfer laws⁴.

Furthermore, the regulatory approach toward digital assets varies globally – ranging between adoption, skepticism, and aversion. On the one hand, the Asia-Pacific (APAC) countries like Japan, South Korea, and

Singapore are leading the way with dynamic regulatory regimes making digital assets more mainstream. The US and some European Union (EU) countries are making similar efforts to support responsible growth in the digital assets market. In the US, the SEC and CFTC have started enforcing actions and recognizing this space as an examination priority. In 2020, CFTC introduced "Digital Commodity Exchange Act (DCEA)" bill to regulate trading venues, including requirement to monitor trading activity and prohibit abusive trading practices, reporting of trading information and disclosure of conflicts of interest⁵. Similarly, the EU plans to implement the new "Markets in Crypto Assets (MiCA)" regulation by 2024, that covers a market abuse regime for crypto assets⁶. On the other hand, and despite the rising popularity of digital assets, some countries are adopting a watchful, and at times confusing approach before making a final decision. For instance, China does not recognize cryptocurrencies as legal tender and has been cracking down on privately issued cryptocurrencies, but there are some indications for change as the People's Bank of China (PBOC) have begun experimenting with launching its own digital currency.

Even though each country is in the process of firming up their regulatory response towards digital assets, the differences across regimes is creating opportunity for regulatory arbitrage. Exchanges, entities, and activities have been found to flow towards jurisdictions with favorable regulatory regimes. This asymmetry is accentuated due to the borderless operations and easy accessibility to the digital asset marketplace. While regulators cannot adopt a "cookie-cutter" approach, they do need to collaborate and harmonize their digital assets guidance if they are to drive effective compliance and cohesive enforcement.

Planning ahead

Institutional and mainstream adoption and support of digital assets innovation has accelerated with capital-rich firms and private investors seeking a technological edge and high-growth opportunities. For this rapid pace to continue, it is essential that market participants see the markets as transparent and safe and are able to invest with confidence – which aligns with the harmonization of the regulatory agenda across major trading hubs.

As regulators intensify their focus on developing regulatory frameworks to control digital asset markets,

the required underlying technology is also evolving. Therefore, it is crucial that the rulemaking introduces suitable incentives to encourage adoption of digital assets and responsible innovation.

To strike this balance the upcoming regulatory frameworks are expected to be holistic, coherent and nimble, aiming to drive principle-based governance and risk management, rather than overly prescriptive rules and requirements. At their core, these principles are likely to be consistent across regulators and seek to protect investors' financial and personal interests and ensure suitable standards of service to clients, capital formation and effective compliance programs.

We also need to consider the globalized character of the digital assets and abovementioned need for global regulatory collaboration. To enhance governance

and take multi-lateral action, several self-regulatory bodies have started working on bringing structural reforms such as, shared data repositories and shared surveillance frameworks.

It is important to note that this is an evolving and developing landscape and there is still time for the regulations and industry-wide guidelines to come together. Nonetheless, for the digital assets exchanges and institutional investors to land on a firm footing, it is essential that they adopt a proactive and transparent approach to protect market integrity. This will require institutions to invest in robust digital assets-tailored monitoring and surveillance capabilities and implement measures to cohesively integrate them with the existing practices and systems. In the days ahead, further institutionalization of digital asset market surveillance will likely pave the way for market maturity and growth.



Endnotes

1. CoinMarketCap, [“Today’s Cryptocurrency Prices by Market Cap”](#), March 10, 2021
2. SEC, [“Bitwise Asset Management – Presentation to the U.S. Securities and Exchange Commission”](#), March 19, 2019
3. CoinMarket, [“Top Cryptocurrency Spot Exchanges”](#), March 10, 2021
4. Congressional Research Service, [“Digital Assets and SEC Regulation”](#), January 30, 2020
5. White House Committee on Agriculture, [Summary of the Digital Commodity Exchange Act of 2020](#), 2020
6. Europa, [Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive 2019/1937](#), September 24, 2020

Contacts

To learn more about how your organization can become secure, vigilant, and resilient, please contact:

Elia Alonso

Principal and Conduct Risk Practice Leader
Deloitte Risk & Financial Advisory
Deloitte & Touche LLP
elaonso@deloitte.com

Roy Ben-Hur

Managing Director
Deloitte Risk & Financial Advisory
Deloitte & Touche LLP
rbenhur@deloitte.com

Niv Bodor

Senior Manager
Deloitte Risk & Financial Advisory
Deloitte & Touche LLP
nbodor@deloitte.com

Khyati Kabra

Manager
Deloitte Risk & Financial Advisory
Deloitte & Touche LLP
kkabra@deloitte.com

Shwetha Jagannathan

Senior Consultant
Deloitte Risk & Financial Advisory
Deloitte & Touche LLP
shjagannathan@deloitte.com

Amit Anand

Senior Consultant
Deloitte Risk & Financial Advisory
Deloitte & Touche LLP
amitanand5@deloitte.com

Pragya Chaturvedi

Consultant
Deloitte Risk & Financial Advisory
Deloitte & Touche LLP
pragchaturvedi@deloitte.com



This publication contains general information only and Deloitte is not, by means of this publication, rendering accounting, business, financial, investment, legal, tax, or other professional advice or services. This publication is not a substitute for such professional advice or services, nor should it be used as a basis for any decision or action that may affect your business. Before making any decision or taking any action that may affect your business, you should consult a qualified professional advisor.

Deloitte shall not be responsible for any loss sustained by any person who relies on this publication.

About Deloitte

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee ("DTTL"), its network of member firms, and their related entities. DTTL and each of its member firms are legally separate and independent entities. DTTL (also referred to as "Deloitte Global") does not provide services to clients. In the United States, Deloitte refers to one or more of the US member firms of DTTL, their related entities that operate using the "Deloitte" name in the United States and their respective affiliates. Certain services may not be available to attest clients under the rules and regulations of public accounting. Please see www.deloitte.com/about to learn more about our global network of member firms.