

Regulatory Outlook Report 2023

2023 Will See Crypto Policy and Regulation
Expand to New Digital Frontiers

Introduction

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The year 2022 was another landmark one for crypto policy and regulatory developments.

The EU agreed to its sweeping Markets in Crypto-assets (MiCA) regulation, while the US Congress debated bi-partisan legislative proposals to govern crypto markets.

Regulators from Singapore to the UK set out rules to protect consumers from fraud and misleading advertizing in crypto markets, while the dramatic collapse of Terra/UST accelerated policy efforts to address the risks from stablecoins.

Meanwhile, the US Treasury's sanctions targeting the Tornado Cash mixer sparked controversy and extensive debate about the regulation of decentralized finance (DeFi).

Above all, the dramatic collapse of the crypto exchange FTX in November sparked an equally dramatic rethink about the need for urgent regulatory intervention to ensure the stability of crypto trading platforms and reduce opportunities for regulatory arbitrage.

After a busy 2022, 2023 is shaping up to be another year of tremendous activity, with regulators and policymakers set to explore new frontiers in the crypto space.

At Elliptic, we expect that five key issues will dominate the regulatory and policy debate in 2023. These are:

1.

MiCA will serve as the blueprint for crypto regulation globally as regulators seek to prevent the next FTX.

2.

Regulators will get serious about combating cross-chain money laundering risks.

3.

Decentralized autonomous organizations (DAOs) will face intensifying regulatory scrutiny and enforcement.

4.

The metaverse will emerge as the next major regulatory battleground.

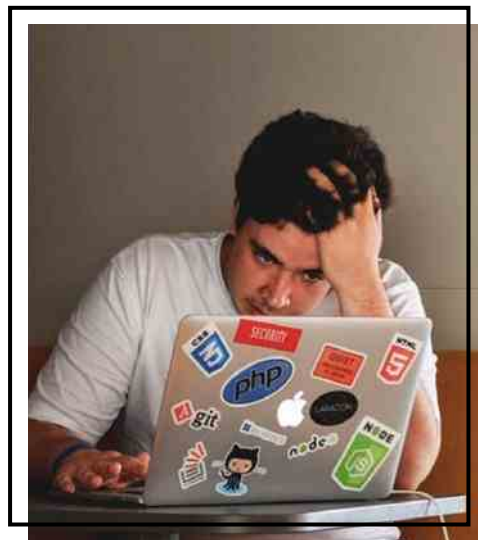
5.

Sanctions pressure on crypto will continue to ramp up, with a focus on mining, mixers and DeFi.

In this report, we will examine these five trends in detail, and consider other policy and regulatory developments we think will have a major impact during 2023. The report then concludes with a lookback at how we fared in our predictions from our [2022 Regulatory Outlook Report](#).

1. MiCA Will Serve as the Blueprint For Crypto Regulation Globally as Regulators Seek to Prevent the Next FTX

The event that dominated regulatory and policy discussions in the second half of 2022 was the stunning collapse of FTX – the crypto exchange platform founded by Sam Bankman-Fried. Over the course of just a few days in November, FTX went from being a dominating force in the crypto space to filing for bankruptcy amidst the loss of billions in dollars of user funds that it used to cover losses at its sister trading firm Alameda Research. FTX’s collapse sparked losses and disruption at numerous other firms in the crypto space with exposure to Bankman-Fried’s exchange.

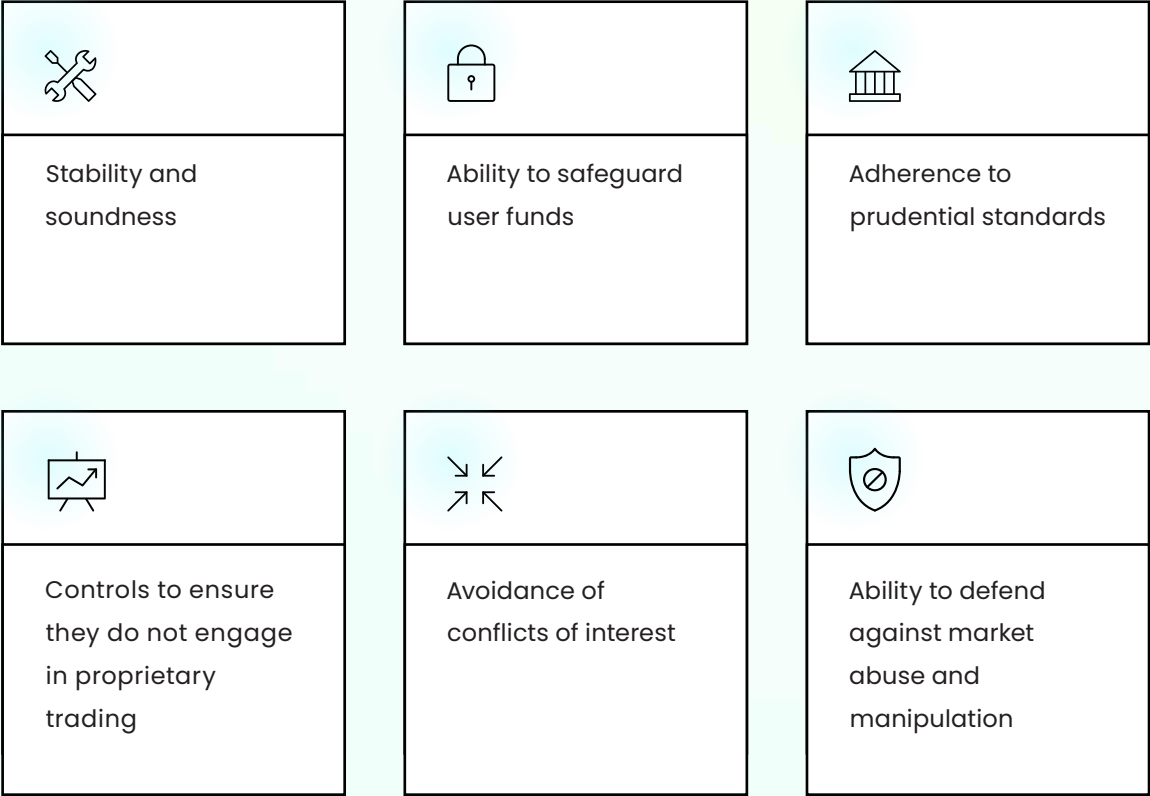


The FTX saga immediately prompted calls across the industry and among regulators for enhanced regulatory oversight to bring greater transparency and accountability to crypto markets. Addressing the full range of challenges presented by FTX’s demise will prove complex and will take time. But as regulators around the globe seek to put firmer rules around crypto markets to enhance transparency and stability, they are likely to look to developments in Europe as a basis for the road ahead.

One of the biggest pieces of regulatory news in 2022 was that the European Union finalized the text of its mammoth Markets in Crypto-asset (MiCA) regulatory framework. It is due for a formal vote by the EU Parliament and publication in the first half of 2023, and MiCA’s full provisions are expected to come fully into force before the end of 2024.

Cryptoasset service providers (CASPs) in Europe will face extensive compliance requirements as a result of MiCA designed to enhance transparency around their operations, minimize the potential for market contagion, and reduce risks to users.

Under MiCA – among numerous other requirements – CASPs will need to demonstrate their:



Additionally, stablecoin issuers will face stringent reserve and disclosure requirements to ensure token holders are protected from bank-style runs.

Because it is incredibly comprehensive, MiCA provides market participants with clear indications of the rules of the road, and helps them in understanding what will be expected of them over the long-term. We expect that in 2023 a growing number of CASPs will seek to register in Europe to take advantage of one of the real perks of MiCA – the ability for entities registered in one EU member state to “passport” their services around Europe without having to obtain approval from regulators in all twenty-seven member states. This will help to position the EU as a leader in cryptoasset innovation.

However, this should not be seen as a free pass by any means. One consequence of MiCA will be a substantial increase in compliance costs for CASPs in Europe. MiCA may not necessarily have prevented the FTX collapse from occurring given the extensive and global nature of that crisis. However, its measures would at least have ensured that any European entities in the FTX corporate empire were subject to much stricter accountability and disclosure requirements, and the impact on users might have been mitigated.



We also believe that MiCA will have an impact that extends well beyond the EU's borders. Because it is so comprehensive, MiCA is likely to become the template many other countries around the world will look to when developing their own cryptoasset regulatory frameworks. MiCA contains detailed provisions around stablecoin issuance, market manipulation, custody, transaction reporting, and more. In the US, by contrast, policymakers are still contemplating dozens of discrete proposals that cover these various subject areas, with no clear timeline for completion.

For countries that are still designing their regulatory frameworks – especially in parts of the world such as the Middle-East North Africa (MENA) region – MiCA offers a unique ready-made template for how a comprehensive regulatory framework can be designed in one fell swoop.

We also anticipate that international bodies and financial watchdogs – such as the G20, Bank for International Settlements, and the Financial Stability Board – will call on countries around the world to establish regulatory measures aligned with those in MiCA designed to protect consumers and ensure sound prudential practices at crypto exchanges. These calls for enhanced standards will help to drive greater alignment in regulatory standards for crypto globally, which may help to reduce the potential for regulatory arbitrage that enabled FTX to take advantage of lax regulatory measures in many parts of the world.

During 2023, MiCA will become the blueprint for crypto regulation globally, charting the course for how crypto is regulated for years to come in much of the world.

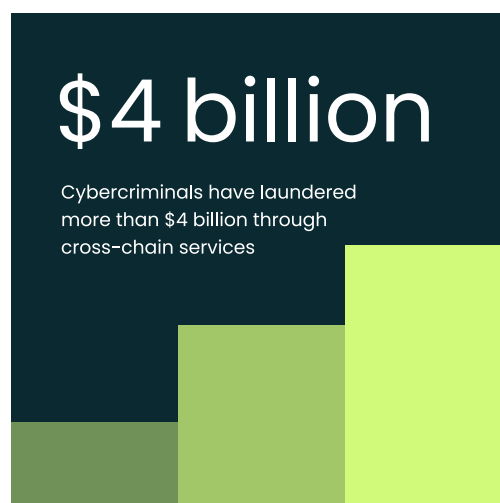
2. Regulators Will Get Serious About Combating Cross-chain Money Laundering Risks

Recent developments in decentralized finance (DeFi) have fundamentally changed the crypto ecosystem. Where cryptoasset users were once largely confined to transacting with a limited range of services native to one blockchain at any given time, new innovations are enabling users to engage in cross-chain transactions to access products and services across numerous blockchains seamlessly.

For example, decentralized exchanges (DEXs) such as Uniswap enable users to engage in peer-to-peer (P2P) swaps on Ethereum and other blockchains rapidly and without having to interact with a centralized intermediary. Similarly, cross-chain bridges enable users of one blockchain – such as the Bitcoin blockchain – to transfer their assets onto another blockchain like Ethereum, without having to rely on exchanges.

These innovations have created a rich multi-chain ecosystem that is increasingly frictionless, user-friendly and offers the prospect for compelling new services to launch across the crypto space. Yet these innovations are also providing new gateways for illicit actors to launder crypto.

As we highlighted in our October 2022 State of Cross-Chain Crime Report, illicit financial flows across assets and blockchains are growing rapidly. Our research indicates that since 2020, illicit actors – including ransomware attackers and North Korean cybercriminals – have laundered more than \$4 billion through cross-chain services. This includes \$1.2 billion that hackers have laundered through DEXs, and \$540 million laundered through RenBridge, a service that allows users to swap funds across blockchains.



The use of cross-chain bridges to launder tainted cryptoassets was highlighted in November when funds drained from FTX were sent through these services. In the FTX case, more \$470 million in crypto left the exchange – apparently unauthorized. The perpetrator of the apparent theft swapped certain tokens for Ethereum at DEXs, and then transferred a portion of the Ether they had obtained onto the Bitcoin blockchain using RenBridge.

Elliptic forecasts the value of crypto laundered through chain or asset hopping will reach \$6.5 billion by 2023 and \$10 billion by 2025.

Some anti-money laundering and countering the financing of terrorism (AML/CFT) watchdogs have already expressed concern about the rise in cross-chain crime. [In a June 2022 report](#), the Financial Action Task Force (FATF) warned that the increasing use of cross-chain bridges is enabling criminals to undertake “chain-hopping” in the money laundering process. The US Treasury’s Financial Crimes Enforcement Network (FinCEN) has also noted the increasing use of these techniques in a [report on ransomware](#).

We expect that in 2023, AML/CFT authorities globally will direct their full attention to combatting cross-chain financial crime. This will include issuing detailed alerts and red flag indicators of cross-chain crime that they expect virtual asset service providers (VASPs) to detect. We also anticipate that sanctions authorities will target DeFi services that facilitate cross-chain laundering on behalf of actors such as [North Korea](#) – as we describe further elsewhere in this report.

Importantly, we believe that in 2023 regulators will expect VASPs to deploy screening capabilities for detecting cross-chain risk exposure.

To that end, VASPs should ensure they use next-generation [blockchain analytics](#) solutions – such as Elliptic’s [Holistic Screening](#) capabilities – which enable compliance teams to obtain a real-time understanding of cross-chain risk exposure when assessing their customers’ wallets and transactions.

3. DAOs Will Face Intensifying Regulatory Scrutiny and Enforcement

[Decentralized autonomous organizations \(DAOs\)](#) are one of the most intriguing innovations in the cryptoasset space. They provide a novel approach to collective enterprise; a dispersed set of individuals located anywhere in the world can buy a token representing a stake in a DAO, which confers voting rights and a share in profits related to a DAO’s underlying activities.

DAOs provide the governance framework for many of the most popular DeFi services, such as Uniswap and Aave. The popular Maker DAO supports one of the largest DeFi apps available today, allowing users to access lending facilities using the Dai stablecoin. DAOs have also been formed for a wide variety of niche initiatives – from enabling participants to own a share of the US Constitution to serving as distributed homeowners associations in the game Decentraland.

Ultimately, DAOs offer the prospect of upending traditional models of enterprise formation and venture capital by leveraging the open nature of the blockchain to democratize ownership, and enabling individuals anywhere in the world to collaborate on ventures with minimal barriers to entry.

However, DAOs also raise complex novel legal and regulatory issues. For example:

		
Who is liable for the activities of a DAO?	Does a DAO need to register as a corporate entity anywhere?	Can regulators assert jurisdiction over DAOs, or over individual governance token holders?

The pressing need to find answers to these questions will see DAOs emerge as one of the top regulatory and policy issues in the crypto space in 2023.

In 2023, we'll see more jurisdictions follow the lead of [Wyoming](#) and the [Marshall Islands](#) by establishing legal frameworks that permit DAOs to register as corporate entities and ensure that members benefit from the limited liability extended to other incorporated businesses. Clearer legal guardrails will help DAOs to gain legitimacy and will ultimately spur their growth – and will also ensure their accountability.

However, 2023 will also see regulators pursue numerous enforcement actions against DAOs and their members for non-compliance with financial regulation. In September 2022, the US Commodity Futures Trading Commission (CFTC) commenced enforcement proceedings against Ooki DAO, which the CFTC alleges operated an unregistered futures exchange by allowing customers to access leveraged trading services without obtaining CFTC approval. In November, the US Securities and Exchange Commission (SEC) took steps to block the registration of certain DAO-issued tokens to protect consumers from misleading claims about their regulatory status.

These will be just the first of many enforcement actions targeting DAOs. In 2023, we expect the CFTC and SEC to take further enforcement actions against DAOs. Regulatory pressure on them will also ramp up in other parts of the world. The EU, for example, has already started drafting updates to bring DAOs into the bloc's regulatory framework for crypto.

Additionally, 2023 will see more attention focused on the financial crime risks associated with DAOs – for example, the risk that illicit actors could launder funds by purchasing DAO governance tokens with tainted cryptoassets, or the potential for DAOs to be the target of hacks and market exploits.

4. The Metaverse Will Emerge as the Next Major Regulatory Battleground

Many of the most exciting innovations impacting the crypto space – such as DAOs, DeFi and non-fungible tokens (NFTs) – are foundational to perhaps the most important development of all: the emergence of the metaverse.

The metaverse refers to digital environments that feature increasingly complex forms of interaction, including the potential for users to access a full range of financial services in an entirely virtual setting. The metaverse includes decentralized gaming environments such as Decentraland, The Sandbox and others. Increasingly, corporations are exploring the potential for the metaverse to spark new economic opportunities – the most obvious cases being Facebook's recent rebranding to Meta.

Citi estimates that the metaverse economy could ultimately be worth up to \$13 trillion. Meanwhile, major brands such as JPMorgan, Coca-Cola and others are already experimenting with launching services in the metaverse in anticipation of this opportunity.

Some governments are interested in the opportunities as well – with countries such as South Korea, Japan, and the UAE announcing metaverse strategies with the aim of spurring future job creation and economic growth.

The following year will see activity in the metaverse continue to develop, and we expect that 2023 will feature growing regulatory focus on how to govern this new virtual space.

As we detailed in our report [The Future of Financial Crime in the Metaverse](#), criminals are already starting to explore ways to exploit these new virtual worlds. This includes the hacking and theft of digital assets belonging to users of services in the metaverse, as well as frauds and scams directed at users. Elsewhere, the proliferation of “wearables” – or digital fashion and luxury items – could open up new avenues for digital money laundering.

In October 2022, Europol issued a report on [Policing in the Metaverse](#) that highlights key challenges law enforcement agencies face when pursuing criminals in these virtual environments. During 2023 we think regulators and watchdogs will turn their attention to curtailing emerging financial crime risks in the metaverse as well. In some cases this may simply involve clarifying where pre-existing regulation extends to activity conducted in the metaverse.

In other instances, it may require new approaches – such as leveraging [regulatory sandboxes](#) to engage developers in the DeFi space, as is being done in [Abu Dhabi Global Market](#), or potentially even regulators establishing a presence in the metaverse, as Dubai’s [Virtual Assets Regulatory Authority](#) has [done already](#).



To learn more about emerging challenges posed by the rise of the metaverse, read Elliptic’s report on [The Future of Financial Crime in the Metaverse](#).

5. Sanctions Pressure on Crypto Will Continue to Ramp Up, With a Focus on Mining, Mixers and DeFi

The year 2022 proved to be another major one for sanctions on crypto-related activity.

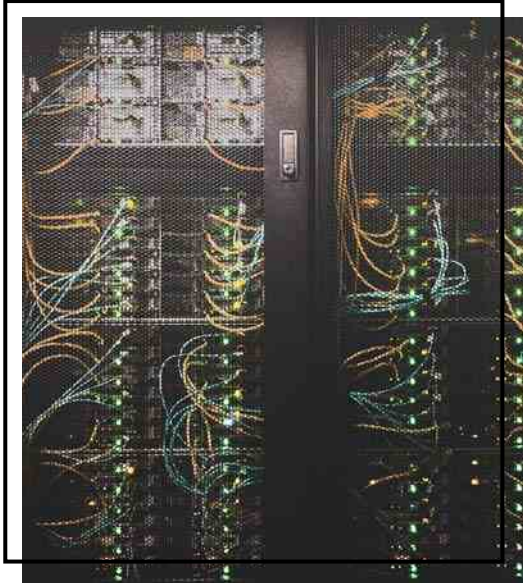
The US Treasury's Office of Foreign Assets Control (OFAC) continued its relentless focus on the cryptoasset space, adding more than 200 further cryptoasset addresses to its Specially Designated Nationals and Blocked Persons List (SDN List). This included addresses belonging to Russian paramilitary groups, Iranian cybercriminals and North Korean hackers, as well as the controversial designation in August of the Tornado Cash mixer, which industry participants are seeking to have reversed in US courts (at the time of publication, no judgements have been issued in these court cases involving Tornado Cash).

OFAC also took a major swing at the crypto space from an enforcement perspective. In October 2022, it issued its largest fine to date against a crypto company...

...when it announced a \$24 million settlement with the US exchange Bittrex for violations related to processing transactions with sanctioned countries.

We expect that 2023 will be a bigger – and potentially even more controversial – year for sanctions compliance in the crypto space. We also predict that OFAC will focus much of its attention on three key areas of activity in the crypto space: mining, mixing and DeFi.

In April 2022, OFAC issued sanctions against the Russian mining company BitRiver. The sanctions appear to have been pursued in response to statements from the Russian government – including President Vladimir Putin directly – suggesting that Russia may seek to leverage its vast energy reserves to mine Bitcoin and circumvent sanctions. Elliptic's research has indicated that Iran already mines as much as 4.5% of all Bitcoin mined globally to evade trade and financial sanctions, so it would hardly be surprising if Russia attempted the same.



We expect that in 2023 OFAC will ramp up its efforts to target mining activity in sanctioned jurisdictions by designating further mining-related entities in countries such as Russia and Iran. We also expect that OFAC will take steps to clarify the sanctions implications of mining and related activity – similar to how it previously issued [guidance](#) on the sanctions risks associated with making or facilitating ransomware payments.

Furthermore, 2023 will see OFAC intensify its sanctions efforts targeting [crypto mixing services](#). US regulators and law enforcement agencies are increasingly

concerned about the potential for illicit actors to use mixers when laundering funds related to crimes such as ransomware and hacking. The ability of threat actors such as North Korea’s Lazarus Group [to launder crypto using mixers](#) has been a cause of particular alarm.

In addition to the aforementioned action it took in August to sanction Tornado Cash, in [May](#) [OFAC sanctioned another mixing service](#) – Blender – for enabling North Korea to launder Bitcoin. We expect that 2023 will see OFAC sanction more mixing services that facilitate illicit activity in an effort to make these services less helpful to criminals.

We expect OFAC will intensify its sanctions activity targeting the DeFi space

The Tornado Cash designation was significant not only because it involved a mixing service, but because Tornado Cash is the first DeFi service OFAC has designated. Unlike other crypto-related targets of OFAC sanctions that are centralized in nature, Tornado Cash is an open-source protocol that facilitates transactions using smart contracts, and without taking control of user funds. This has led some industry advocates to [challenge whether OFAC has the legal authority](#) to sanction DeFi protocols.

Despite these challenges, we think that in 2023 OFAC will press ahead with identifying and sanctioning more DeFi apps and services. This will be driven to a large extent by concerns within the US government about North Korea’s increasing use of DeFi services to engage in cross-chain laundering.

While some observers have questioned whether sanctions can be effective in disrupting activity involving open source DeFi services (on the basis that because they are decentralized, they can't be shut down), we expect OFAC will be emboldened by indications that the volume of transactions being processed using Tornado Cash has declined significantly since the OFAC designation. Elliptic's research indicates that while there are several other mixers that could potentially replace Tornado Cash as the primary mixer on Ethereum, none of these is yet processing substantial volumes of transactions that would make them viable for sustained use by illicit actors.

To prepare for this increased sanctions activity, crypto businesses and financial institutions should ensure that they have access to enterprise-grade wallet and transaction sanctions screening solutions like those provided by Elliptic.

To learn more, read our [Guide to Sanctions Compliance in Cryptocurrencies](#).

Other Policy and Regulatory Trends to Watch Out For in 2023

In addition to the five key issues outlined above, here is a summary of other topics and issues we think will be high on the regulatory and policy agenda in 2023.

Unhosted Wallets

In 2022, both the UK and EU clarified their respective positions on how unhosted wallets – or self-hosted, private wallets – should be treated for AML/CFT purposes. We think the growing regulatory concern over DeFi will lead regulators elsewhere to clarify their stance on unhosted wallets, and that we may even see a revival of stalled US efforts to regulate transactions between crypto exchanges and unhosted wallets.

Non-fungible Tokens (NFTs)

Always a hot topic, we predict that NFTs will continue to creep up the regulatory agenda in response to growing concerns about fraud and manipulation in the space. We expect to see law enforcement make additional seizures of NFTs in 2023, and that major regulatory enforcement actions in the space will be announced, especially related to market manipulation and potential breaches of securities regulation.

Environmental and Energy Security Concerns

The Ethereum Merge that dramatically reduced the Ethereum network's energy consumption has accelerated debate about the environmental impact of crypto mining. Additionally, in response to concerns about energy security in light of the Russian invasion of Ukraine, authorities in Europe have even warned of the potential of placing a moratorium on mining to conserve energy reserves. We believe that the always-controversial debate over crypto's energy and environmental impact will continue to heat up – with policymakers looking to disincentivize proof-of-work (PoW) mining, and some even reviving discussion about whether to restrict the ability of regulated businesses to trade in PoW-based cryptoassets.

Banks' Exposure to Crypto

Mounting global financial and economic instability will lead regulators to accelerate efforts already underway to monitor the banking sector's exposure to cryptoassets. Bodies such as the Financial Stability Board (FSB), the Basel Committee on Banking Supervision, the Office of the Comptroller of the Currency (OCC), and the European Central Bank have expressed concerns that cryptoassets could spark broader financial sector contagion if banks are too heavily exposed to crypto before the space is thoroughly regulated – fears that were heightened amid the FTX collapse.

These and other watchdogs will continue to set out extensive guidelines governing how banks can interact with crypto. In the near-term this will result in more regulation, but that will ultimately create confidence that they can enter the crypto space with clear guardrails in place.

CFTC/SEC Jurisdiction

While the CFTC and SEC both deny that they are engaged in a regulatory turf war, the crypto industry is demanding that US lawmakers settle once and for all the question of where each regulators' respective remit starts and stops. We think that in 2023 the US Congress will pass legislation making the CFTC the regulator for spot markets of cryptoassets determined to be commodities. However, while both agencies agree that Bitcoin is clearly a commodity that should fall within the CFTC's jurisdiction, and that markets for nearly all other cryptoassets should sit under the SEC, we think the two agencies will continue to tussle over who should maintain oversight of Ethereum markets.

Accelerating Regulation in Africa

To date, countries across Africa have generally been slower to regulate crypto than counterparts in other parts of the globe. Capacity constraints in some countries have made regulating the complex cryptoasset space a challenge. Some other countries on the continent – such as Morocco – chose initially to ban cryptoassets rather than regulate them.

We think 2023 will see regulatory activity in Africa ramp up significantly. South Africa is already leading the way in establishing a regulatory framework for crypto, and we believe other countries will follow its example. Similarly, we think that some governments that have taken crypto-sceptical positions – such as Morocco and Nigeria – will begin to soften their stance on crypto as they look to examples of draft regulation elsewhere – such as MiCA – to establish regulatory frameworks that are robust but can permit and enable innovation as well.

CBDCs

Central bank digital currencies (CBDCs) have been a hot topic for several years now. We think macroeconomic headwinds will cause the CBDC debate to take on a new dimension. While the US, EU, Singapore, UK and other major financial centers have been studying CBDCs with the long-term in mind, we think that policymakers in these and other countries will increasingly frame CBDCs as a key component of financial sector innovation that could be critical to revitalizing economic growth. We expect that the CBDC research and development will take on intensified urgency as policymakers seek lifelines in a challenging economic environment.

2022 Lookback

Last year, Elliptic published our top regulatory and policy predictions for 2022. So, how did we do?

As expected, consumer protection dominated as the major new regulatory priority in 2022. We predicted that the massive growth in crypto adoption that occurred across 2020-21 would lead regulators to treat consumer protection as their number one policy priority in 2022 – and we think we got that one right.

From the US to the UK and Singapore to Spain, regulators started taking concrete steps to regulate crypto advertising, as well as imposing other measures to ensure consumers are protected from misinformation when trading cryptoassets. We think there's little doubt that 2023 will continue to see a major focus on further consumer protection measures in the crypto space.



While our forecast that US regulators would levy an eight-figure enforcement penalty on a DeFi project didn't transpire, 2022 nonetheless saw significant US enforcement actions targeted at DeFi. The CFTC in particular took two important actions involving the DeFi space in 2022.

One was the enforcement action targeting Ooki Dao, which is described above. The other was a \$1.4 million penalty levied on Polymarket, a DeFi predictions market that the CFTC accused of servicing the US market without approval. We expect that in 2023 both the CFTC and SEC will accelerate DeFi-related enforcement – and that an eight-figure fine may not be too far away.

While there is growing crime in the NFT space, the regulatory picture remains more muddled than we anticipated. As we highlighted in our report on NFTs and Financial Crime, fraud and hacking in the NFT space are growing, which we anticipated would be the case. Though regulators have been slower to clarify their stance on NFTs than we expected they would be. While some regulators such as the SEC began pursuing enforcement actions involving NFTs, regulator clarity around the NFT space is still very much lagging, and it seems it will need to wait until 2023.

VASP due diligence is becoming a common industry practice, but unified standards of good practice are still lacking. We noted last year that the FATF Standards would require VASPs to apply correspondent banking standards on their VASP counterparts. We've certainly seen that happen, with a growing number of VASPs leveraging solutions such as Elliptic Discovery that enable them to conduct counterparty VASP due diligence. However, we expected that uniform standards on VASP due diligence such as those developed by the Wolfsberg Group for correspondent banking would emerge in 2022 – but, at the time of publication, they have not. We expect 2023 might yet see these types of common VASP due diligence standards emerge.

As expected, regulatory approaches to stablecoins are driving a convergence between standards of compliance for banking, and those set for components of the crypto industry. We predicted 2022 would be the hottest year yet for stablecoin regulation – and we certainly got that right. The EU agreed on stablecoin provisions via MiCA, while New York's regulators issued guidance on stablecoins too. Singapore began consulting on a proposed stablecoin framework, while the US Congress debated legislative approaches. Multilateral organizations such as the FSB began articulating standards to ensure that stablecoins don't trigger global contagion. We expect this intense focus on stablecoins will continue across 2023 and beyond – and that the US Congress may even settle on a legal framework for stablecoins sometime early in the New Year.

About the Author



David Carlisle

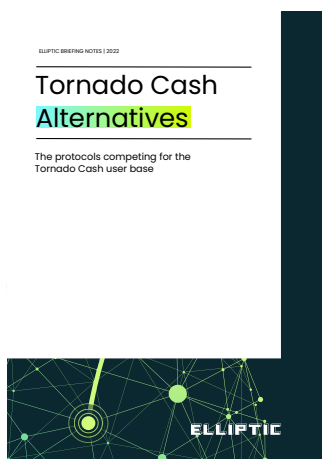
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Before joining Elliptic, David worked for the US Department of the Treasury, including in the Office of Foreign Assets Control (OFAC), where he was involved in the design and implementation of US financial and economic sanctions programmes involving countries such as Myanmar and Iran. In subsequent roles, he worked in the Treasury's Office of Terrorist Financing and Financial Crimes (TFFC) and advised senior Treasury officials on a wide range of topics related to sanctions, money laundering, and terrorist financing. David is an associate fellow at the Royal United Services Institute, where he has authored reports on regulatory issues impacting cryptoassets.

Other Reports by Elliptic



Blockchains have become increasingly interconnected. New technologies such as decentralized exchanges (DEXs) and cross-chain bridges have removed many of the barriers to the free flow of capital between cryptoassets. However they are also being abused for money laundering by the likes of ransomware groups and hackers, who are moving billions of dollars in crypto between assets and blockchains



On August 8th 2022, the US Treasury Department's Office of Foreign Assets Control (OFAC) sanctioned the popular Tornado Cash decentralized mixer. Processing over \$7 billion worth of cryptoassets throughout its operation, Tornado Cash was used by criminal entities – including North Korea's "Lazarus Group" state cyberhackers – to launder over \$1.54 billion of illicit cryptoassets. This briefing note details Elliptic's analysis into six prominent alternative Ethereum-based obfuscation protocols that have been mentioned as potentially the next Tornado Cash.



This guide deep dives into financial crime typologies using metaverse-related cryptoassets, in order to arm compliance teams with a comprehensive set of warning signs and case studies on:

- Illicit activity involving cryptoassets in the metaverse.
- Examples of how these indicators fit into broader criminal behaviors.
- Context on how criminals engaged in these activities are working to clean their illicit funds.