



G B B C
DIGITAL
FINANCE

2022 | Year in Review

**WHILE CRYPTO HAS FALTERED,
THE TOKENIZATION OF THE
REAL ECONOMY HAS BEGUN
IN EARNEST**

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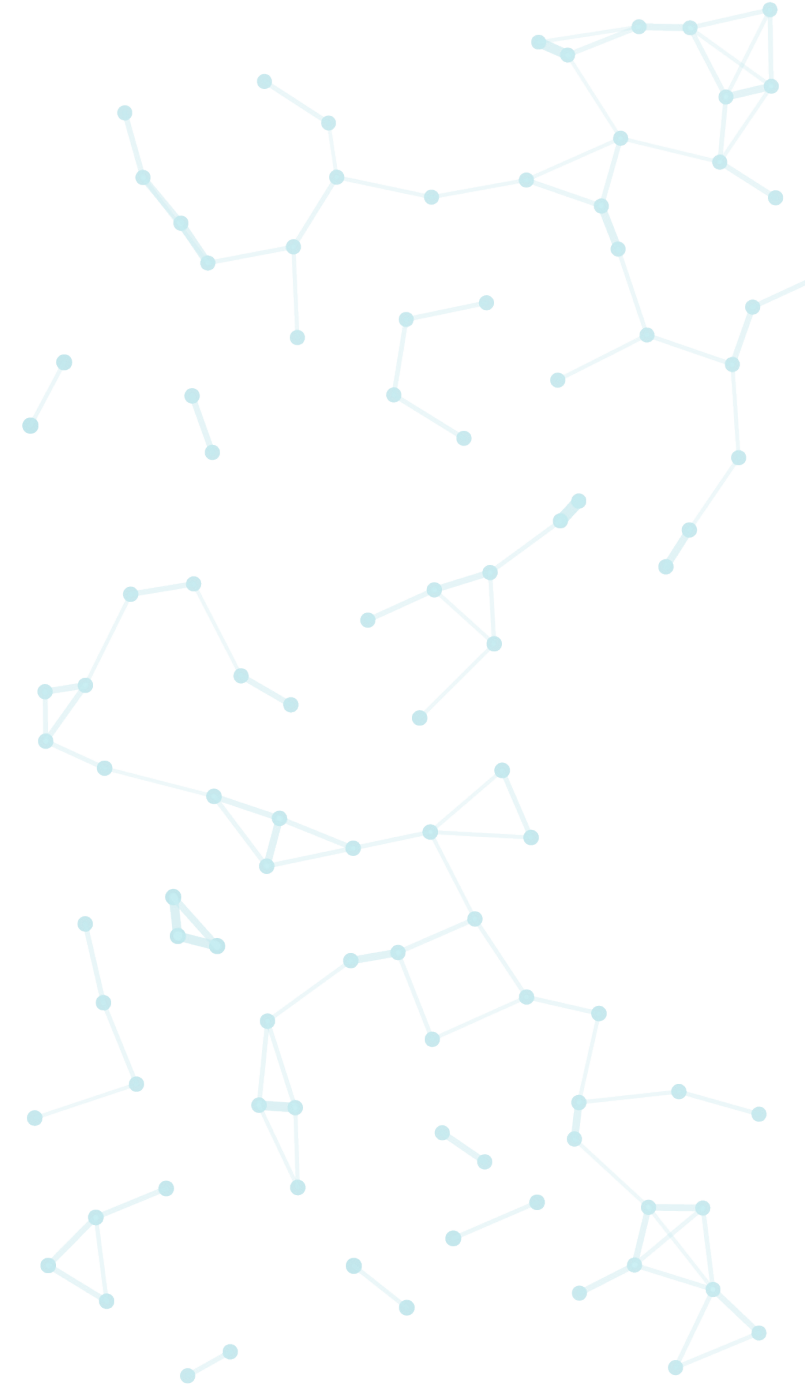
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Chair's Foreword



Lawrence Wintermeyer
Chair of Board
GDF

2022 proved to be one of the most challenging years for global markets with high inflation, record energy prices, and the worst performance of the US stock market since the 2008 financial crisis. Crypto fared no better and followed markets down with a string of crises across the year from the Luna stablecoin implosion to the ignominious bankruptcy of FTX, the resulting contagion, and failure of several crypto firms.

GDF is disappointed by the FTX bankruptcy and its impact on customers, counterparties, and market integrity. In market downturns the “flight to quality” and shakeout of organizations that are over-leveraged or do not have the working capital to sustain themselves becomes evident. The FTX bankruptcy may very well lead to profound consequences for the impending regulation of crypto in major markets.

The GDF member-led Advisory Council is now looking at ways to improve GDF Codes to better equip crypto exchanges with higher conduct standards for consumer and counterparty protection. Unfortunately, codes, standards, policies, and regulations will not deter

individuals’ intent on circumventing controls and committing fraud.

We remain vigilant and are working together with the Advisory Council to ensure GDF has the support in place to respond to member and community needs and priorities in 2023. We are also committed to moving the GDF Code further to a fully open-source public standard in 2023 so that any firm, association, or agency interested in promoting and adopting it can do so.

We all have an obligation to reclaim the high-ground and help to restore the lost trust of our customers and stakeholders across the global crypto market through demonstrating exemplary conduct.

The GDF Global Financial Institution Cryptoasset working group has just completed drafting the Global Standard for Cryptoassets, a well-timed set of principles that are intended to promote a robust, fair, liquid, open, and appropriately transparent market. The standard is now in open public consultation until February 2023 in advance of regulatory purview and public release.

Institutions committing to this standard will help to ensure that a diverse set of market participants, supported by resilient infrastructure, are able to transact in crypto confidently and effectively at competitive prices that reflect available market information and in a manner that conforms to acceptable standards of behavior.

A big theme in 2022 was “The Asset Managers are Coming.” Several of the largest buy-side institutions are now engaged in the tokenization of billions of dollars of financial assets and are seeking to extend the tokenization of real assets beyond securities to real estate and commodities. 2022 saw a significant increase in projects around the tokenization of traditional asset classes. The GDF Private Markets Digitization Steering group made up of over 80 institutions worked to open up global digital distribution using the FinP2P open-source protocol.

The GDF DeFi working group report, [Moving The Dialogue On Standards And Regulation Forward](#), published this year, is a call to action for industry and agencies to engage on and

commit to the development of regulatory nodes on protocols. In the short-term, the DeFi industry must focus on adopting the many standards already in use in the wholesale markets for anti-money laundering (AML)/know-your-customer (KYC), margin lending, third party data usage, and algorithmic finance.

Looking at the medium- to long-term, the community explores co-regulatory models and the opportunities to design regulator nodes in a decentralized autonomous organization (DAO), something which Abu Dhabi Global Markets (ADGM) also highlight in their contribution to this report.

The [GDF Stablecoin Code refresh](#) was released in the early autumn and served to further underpin the important role that asset backed and fully reserved stablecoins play in decentralized finance. Despite the crypto market turmoil of 2022, stablecoins set a record in total settlement volume this year, beating out most major credit card providers and demonstrating the importance of stablecoins in the development of Web3 and the future global payments system.

The economic and consumer benefits of digital payments have heightened the urgency of the

central bank digital currency (CBDC) agenda with most central banks now engaged in CBDC projects. 2022 saw several Bank of International Settlements (BIS) Innovation Hub projects deliver. The U.S. Administration delivered a framework for a digital dollar, the European Central Bank (ECB) announced its commitment to investigating a digital Euro, and the UK has signaled the development of a digital pound.

While crypto has faltered in 2022, the tokenization of the real economy has begun in earnest.

Following the Ukraine Crisis earlier in 2022, GDF's [Emergency Sanctions Summit](#) in March saw hundreds of delegates in attendance and was followed up by a working group dedicated to Sanctions. This resulted in a [Sanctions Primer](#) report, which examines the operational components to sanctions compliance in the industry, as well as policy considerations for further mitigating sanctions evasion risks, and is supported by a [Sanctions Hub](#) on the GDF website.

The community response to sanctions was exceptional and demonstrated that the global crypto industry can come together

to meet challenges of policymakers and law enforcement in line with a traditional global framework and objectives.

The fulfillment of members' and regulators' GDF 2022 priorities was evident in the continued prolific activities of member-led working groups with DeFi and the Stablecoins Code refresh. Significant work was also done in the AML working group on the [Virtual Assets Due Diligence Questionnaire](#), developed with the Wolfsberg Questionnaire in mind. A new Digital Custody Working Group was kicked off jointly with the International Securities Services Association (ISSA). With over 20 firms contributing, the group is expected to deliver a report in early 2023.

Following regulatory roundtables, GDF submitted nine major regulatory consultations in different agencies and regions and chaired a member-only Markets in Crypto Assets (MiCA) Working Group to influence the Level 1 draft. With the bill now passed through the European Parliament, and MiCA expected to come into effect in 2024, the working group will continue to convene members to engage with the European Union (EU) on the Level 2 measures to be implemented as part of the legislation.

GDF conducted advocacy outreach missions in

Brussels, Washington, London, and Singapore.

The key message was the strength of the GDF membership in its dedication to collaborative policymaker and regulatory outreach, and the community's dedication to standards. In the U.S., the President's Executive Order kicked off the government-wide review of the digital asset ecosystem and GDF continued its engagement with U.S. agencies.

The GDF Regulators' Only Forum has extended its outreach to over 60 agencies and 170 delegates invitees. Our quarterly meetings saw presentations from GDF member working groups on sanctions and institutional standards; policymaker and regulatory presentations on MiCA Level 1; and jurisdictional best practices for exchange licensing.

GDF became an International Organization of Securities Commission (IOSCO) Affiliate Member in September, the first crypto and digital assets members association to do so, and we will focus on the IOSCO Crypto-Asset Roadmap working groups: Crypto and Digital Assets (CDA), and Decentralized Finance (DeFi) with a view of getting industry working even more closely with regulators.

Contributions to the this year's report from the Financial Stability Board (FSB) and the Organization for Economic Co-operation and Development (OECD) call for immediate action on global regulatory harmony as crucial to the development of safe and sustainable markets in digital finance. The Financial Action Task Force (FATF) reports on the work still to be done on the global implementation of the Travel Rule.

The Dubai Financial Services Authority (DFSA) and Virtual Assets Regulatory Authority (VARA) demonstrate the importance of ongoing industry engagement on behalf of regulators. Commissioner Mersinger at the Commodity Futures Trading Commission (CFTC) calls for greater clarity and collaboration between agencies, stating, "fix the problem, not the blame."

This year we have strengthened the GDF board, adding Dawn Stump, former Commissioner at the CFTC, who will support the team further with the development of the GDF Regulator Forum and our regulatory outreach, and Dimitrios Psarrakis, a highly experienced European Commission advisor and a member of the MiCA drafting team. This, along with GDF board member and GBBC CEO Sandra Ro's move to

Washington, extends our capability to support policymakers and regulators through education and knowledge of blockchain and the crypto and digital assets ecosystem.

GDF's merger with the GBBC in May strengthens our organizations and creates the largest global blockchain and digital assets members association in the world. GDF will lead on the financial services sector enabling GBBC to build out in the logistics, energy, and healthcare sectors globally. GDF has taken on the running of the GBBC Post Trade Distributed Ledger (PTDL) group, a monthly forum for financial institutions, policymakers, and regulators.

The newly merged organization extends our global footprint and range of benefits on offer to members in an unparalleled and preeminent community for the open and collaborative development of the global blockchain and digital assets ecosystems. 2023 will likely be one of the most difficult markets many of us will face for a generation, and collaboration is one of the key commercial enablers to forge a path to future successes.

It is through open collaboration that the GDF community has achieved such an outstanding program of work in 2022, through one of the worst markets, and volatile global economies in recent times. We have our dedicated members and community supporters to thank for this: it is you that make GDF the preeminent global membership community it is.

Our purpose, which is fulfilled by delivering the GDF mission, has never been greater: to promote and underpin the greater adoption of market standards for the use of crypto and digital assets through the development of best practices and governance standards in a shared engagement forum with industry, policymakers, and regulators.” ■

Exec Report: GDF 2022 in Review



Emma Joyce
Chief Executive Officer
GDF

Despite a shaky 2022 for some in the digital assets industry, adoption of digital assets continued apace on a global level, and there were many positive events that moved the industry forward.

At GBBC Digital Finance, we continued to work with industry and regulators and support our members.

GDF merged with the Global Blockchain Business Council (GBBC) in May 2022, and the merger saw the two organizations join their respective resources, assets, and membership, becoming the world's largest industry association for the blockchain technology and digital assets ecosystem. GDF leads on all financial services-

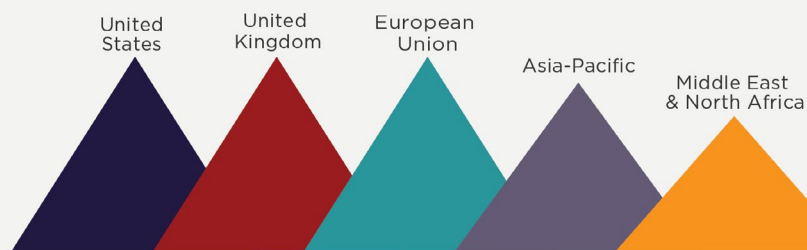
related activities, and this meant business as usual for GDF, but with more members, resources, and opportunities.

The GDF Advisory Council (the GDF governing body that oversees the development of the Codes of Conduct, Member Code Registration program, regulatory consultations, and policy recommendations), and all our working groups have remained in place, and we continued to engage with policymakers and regulators, respond to regulator consultations, refresh codes, and produce reports. During 2022 we welcomed DTCC, Crypto.com, Gate.io, OKCoin, PayPal, Visa, and Chainalysis to the Advisory Council.

We started 2022 focused on our members' priorities, which were decentralized finance (DeFi), digital custody, and anti-money laundering (AML)/know-your-customer (KYC), and we built our 2022 program accordingly via our working groups, reports, and events. This included publishing the [DeFi](#) and [sanctions](#) reports; launching the Digital Custody working group with the [International Securities Services Association](#); continuing our work with the Global Financial Institutions Crypto Assets (GFIC) group; and developing the [Virtual Assets Due Diligence Questionnaire](#).

In our survey at the beginning of 2022, our members told us that the US, European Union (EU), and UK were the priority jurisdictions

Priority Jurisdictions for GDF Members in 2023 *GDF Member Survey 2022*



Top Regulatory & Policy Challenges in 2023

GDF Member Survey 2022

#1

Lack of clarity on the regulatory perimeter

#2

Inconsistent or unaligned cross-border guidance

#3

Not all market actors are regulated, creating commercial challenges to partner or collaborate

Priority Areas for GDF Members in 2023

GDF Member Survey 2022



Emma Joyce speaking at the Neckerverse Event, 2022

they had a focus on. As we saw throughout the year, with the President's Executive Order, the European Union's Markets in Crypto Assets Regulation, and the UK vying to become a global cryptoasset hub, all three regions are showing leadership in the race for digital asset regulation.

GDF's community continued to respond through regulatory engagement and consultation responses. Andrew Smith and Lawrence Wintermeyer have been leading engagement with regulatory bodies in the US. Meanwhile, we launched the Markets in Crypto Assets (MiCA) Working Group, and have been developing the All Party Parliamentary Group (APPG) on Digital Finance which will launch this year.



CryptoCompare's Digital Asset Summit 2022

Asia-Pacific continues to be a region of importance for GDF members, and we have held various member events in Singapore during 2022, including a GBBC/GDF dinner which representatives from the Monetary Authority of Singapore (MAS), the Financial Action Task Force (FATF), and the Securities and Exchange Commission (SEC) attended as speakers.

We continued to engage members, regulators, and policymakers in a number of regulatory consultation roundtables, member roundtables, summits, responding with agility and readiness to industry developments. This included our Emergency Summit on Sanctions in response to the war in Ukraine and global focus on

ensuring crypto platforms were not misused for sanctions evasion.

The GDF Board, Executive, and members have had a very busy year speaking at events around the world including annual fixtures in London, New York, San Francisco, Paris, Barcelona, Singapore, Texas, Salzburg, and Dubai as well as speaking at events at GBBC's annual fixtures at Davos and UNGA, and the Necker Island Blockchain Summit.

We also continued to produce events. In partnership with DLA Piper, the Tony Blair Institute for Global Change, and Chainalysis, we held an event focused on "Women in Blockchain and Digital Assets", exploring how women can start a career in these industries, and we are looking to continue this series in 2023.

We held our annual Global Summit on Crypto and Digital Assets with Hogan Lovells in November which explored unlocking crypto and digital assets, on a global scale. A large conference was held in London with events also taking place across Asia, Paris, Frankfurt, Milan, Dublin, Brussels, and Washington, D.C.

GDF was a partner at the California, Singapore, and London Digital Assets Week series, and hosted a large dinner after the London event with Lord Holmes of Richmond as guest speaker.

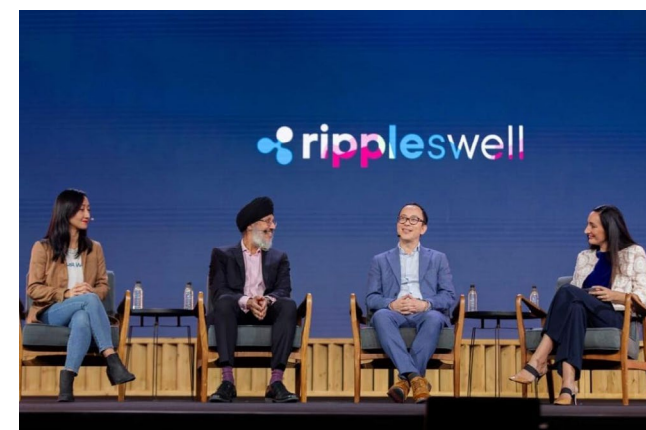
It was a very busy but rewarding 2022, and GDF heads into 2023 with more members, more partners, and more areas to collaborate than ever before.

As ever, my thanks goes to the GDF Board, the GDF team and the GDF members, without whom none of the above would be possible. I also need to thank my new colleagues – the GBBC Executive Team, board, and the GBBC members. Together, both teams have shown what collaboration and teamwork means and can achieve.

As one association, we are larger and stronger, and ready to continue to lead and advocate the adoption of best practices for digital assets at a time when the industry truly needs it. ■



Anastasia Kinsky and Lawrence Wintermeyer host the Digital Asset Report with FintechTV



Emma Joyce hosts a panel at Ripple Swell 2022

GDF ADVOCACY AND OUTREACH

Regulatory Helter Skelter – A Lookback

U.S. Regulation and Policy in 2022



Andrew Smith
Government and Regulatory
Affairs Director - Americas
GDF



Dina Ellis Rochkind
US Policy Advisor
GDF

To say that 2022 was a tumultuous year for U.S. crypto regulation is an understatement. With a barrage of legislative proposals across Congress and the states, an Executive Order whole of government regulatory review, novel regulatory actions, and catastrophic blows up in the space, we conclude the year at a regulatory inflection point. Now on the other side of a political mid-term election cycle that left Congress divided, the mantra for digital asset regulation in 2023 should be *do not let the perfect be the enemy of the good*.

Throughout the year, we have tracked the status of dozens of legislative proposals, including two significant overarching ones, the [Responsible Financial Innovation Act](#) and the [Digital Commodities Consumer Protection Act](#), but none were successful. Observers seemed cautiously optimistic that stablecoin legislation would move forward during the year. However, consensus faltered and then failed, and at the time of writing, none of the year's proposals had advanced into law. With an eye toward the 2023 legislative agenda, hopefully the lessons learned and best components of past proposals will be incorporated into ones for the new Congress.

We watched as a government-wide review process unfolded under executive authority to assess the digital asset ecosystem. More than 20 departments consulted on their roles in the space, and the White House outlined its [First-Ever Comprehensive Framework for Responsible Development of Digital Assets](#). Importantly, the Administration's policy roadmap set out recommendations focused on protections for consumers, investors, businesses, financial stability, national security, and the environment. As observers of bureaucracy will note, this work product serves as cover for regulatory action and legislative initiatives proposed under the duration of the Biden White House.

From the Securities and Exchange Commission's (SEC) actions involving [lending products](#), [insider trading](#), [accounting treatment](#), [new and old registration violations](#) as well as [illicit promotion](#); one-fifth of the Commodity Futures Trading Commission (CFTC) enforcement docket including [Ooki DAO](#); Treasury's [sanctions](#) enforcement including [Tornado Cash](#) and [Bittrex](#); to the innumerable hearings, studies, statements and reports from the Federal Reserve, Office of

the Comptroller of the Currency (OCC), Federal Deposit Insurance Corporation (FDIC), Consumer Financial Protection Bureau (CFPB), and others, the deluge of crypto-related regulatory action over the past year is dizzying.

As if the year had not already produced enough to exhaust the strongest participant, the industry received a November surprise with FTX's cataclysmic implosion. Although the latest and most surprising disaster, it cannot be viewed in isolation. Earlier in the year, as the values of major cryptocurrencies plummeted, Three Arrows Capital, Celsius, and Voyager Digital Holdings filed insolvency cases within weeks of each other. As the dust begins to settle, conversations of contagion and association with the incredible failures of Lehman, MF Global, and Madoff are common, as are discussions in Washington of how such an instance could have been prevented. A market failure affecting



The GDF Reg Team make their way to Washington

society such as this string of insolvencies frequently serves as the impetuous for new, and occasionally over-reactionary, legislative and regulatory action.

Opposing views on the space are likely to intensify in light of the FTX's implosion. However, these views should instead coalesce around the priority of establishing strong processes and regulations to ensure the protection of customer assets. As we careen at fever-pitch into 2023, we hope to see regulators and legislators take a sober look at what is possible and move forward balanced proposals, accounting for the novel realities and distinctive nature of

the decentralized finance space, as well as the unfortunately well-known realities of disgraceful behavior. While no perfect solution exists, the timing and circumstances are ripe for action in Washington.

As always, the GBBC Digital Finance team will continue to follow the legislative and regulatory developments and engage with the relevant stakeholders to represent the views of industry and our membership. ■

From Framework to Implementation

Crypto Regulation in Europe



Lavan Thasarathakumar
Government and Regulatory
Affairs Director – EMEA
GDF

2022 was a seminal year for cryptoasset regulation and Europe was at the epicenter, with the European Union's (EU) Markets in Crypto Asset Regulation (MiCA). After years of monitoring, consulting, and negotiating, on 30 June 2022 MiCA reached political agreement, delivering arguably the most comprehensive cryptoasset regime in the world.

The regime will apply to all cryptoassets which do not fall under existing financial services legislation and apply a strict set of rules for how Crypto Asset Service Providers (CASP) should operate, providing a single rule book that the industry will need to follow when operating across the EU.

However, there is still a long way to go. Whilst MiCA has been agreed, much of the detail as to how it will be applied has been left to Level 2 of the text. It will be up to the European Supervisory Authorities (ESA) to establish the detail on how this will be implemented. This will undoubtedly be a huge job. When we consider the length of time taken to deliver the Regulatory Technical Standards for Payment Services Directive 2 (PSD2) and the controversies that this

unearthed, it is reasonable to suspect that MiCA could follow a similar path and suggestions are that the Level 2 part of the text will be in excess of 1000 pages.

2023 will see the start of this work and there will be a race to conclude discussions in time for when MiCA comes into force. GDF's MiCA Working Group has reconvened to assess what needs to be achieved at Level 2 and make recommendations to the relevant ESAs. Its aim is to ensure that the industry position is made clear and there is a strong regime that delivers the intended protections whilst workable for industry.

Many jurisdictions will have a close eye on where MiCA will end up. This is what comes with first mover advantage: the EU has set the direction in which they are going to address cryptoasset regulation and others will likely follow. However, there is also something to be said for second mover advantage. With EU legislation being a compromise between 27 EU Member States and therefore 27 different markets, there are always going to be concessions within the legislation so that it is able to accommodate everyone. As

such, other jurisdictions can look at this and build upon it in their own regime, gaining a competitive advantage.

The UK can certainly do this and 2022 saw steps in this direction. In his address at the Innovate Finance Global Summit, John Glenn, then Economic Secretary to the Treasury, announced that he wanted the UK to be a Global Hub for cryptoasset businesses, creating a regulatory framework that is dynamic enough to adapt to the fast moving nature of the industry.

Following that, the UK announced its position on stablecoins, extending the regulatory perimeter of the E-Money Directive to bring certain cryptoassets into its remit and committed to establishing a framework for all other cryptoassets in 2023, which we anticipate imminently.

However, for the UK, the most significant step forward was the Law Commission Report on digital assets. The outcome of the report suggested creating a new category of property – 'Data Objects'. The law of England and Wales stretches far beyond its borders with it being

the governing law in a number of international transactions. As such the gravity of this proposal should not be taken lightly, paving the way for a greater clarity of property rights pertaining to digital assets. Whilst a timeline has not been published for it, the Government has also asked the Law Commission to publish a similar report on the legal status of decentralized autonomous organizations (DAO), another vital report which will be key to unlocking DeFi.

Looking forward to 2023, eyes will be set on the Financial Services and Markets Bill (the Bill) in the UK. Towards the end of 2022, the definition of cryptoasset was introduced into the Bill and whilst it was welcome, creating the legislative vehicle to bring cryptoassets into the remit of financial services regulation, eyebrows were raised as to the broad remit it covers, in essence bringing all cryptoassets within scope. Discussions suggest that this will allow all cryptoassets to be covered and then certain cryptoassets excluded in pieces of legislation, where it is not deemed appropriate. Industry needs to remain vigilant that there are not unintended consequences with this approach.

The regulatory outlook for 2023 promises to be even busier than 2022. Whilst 2022 made significant strides in cryptoasset regulation, we are now moving to the implementation stage addressing how we actually apply this regime in practice. What is clear is that it is imperative that industry coalesce to ensure that we provide a consistent narrative and solutions as to how the EU, the UK and jurisdictions across the world approach implementing cryptoasset regulation. Progress is being made, but we are only half way there. ■

A Year of Learning, Reshaping, and Increased Regulatory Clarity

APAC Policy and Regulation in 2022



Greg Medcraft
Board Member
GDF

On a positive note

2022 has seen many important developments in the global digital finance area, especially when one considers the regulatory progress made on central bank digital currencies (CBDCs), stablecoins, and decentralized finance (DeFi), and the work of intergovernmental and supranational bodies working on the policy and regulation for this space.

CBDCs

The Bank of International Settlements' (BIS) survey found that 86% of central banks are actively researching the potential for CBDCs. 60% were experimenting with the technology for CBDCs, and 14% were deploying pilot projects. The BIS Innovation Hub has contributed several proofs of concepts and prototypes, including [Project mBridge](#), [Project Helvetia](#), and [Project Sela](#).

Regional CBDC-related initiatives have continued to develop too. In the APAC region, this includes projects testing or piloting both retail and wholesale CBDCs in Hong Kong and India; the rollout of a retail CBDC pilot in China; and the launch of a pilot for a retail CBDC in Australia.

Singapore is actively looking at wholesale CBDCs for cross-border payments.

Stablecoins

Many countries have announced or are considering rules for single currency-pegged stablecoins (SCS), generally looking to bring them into prudential-style regulation. On a global level, the BIS Committee on Payments and Markets (CPMI) and International Organization of Securities Commissions (IOSCO) have jointly issued guidance on the application of the CPMI-IOSCO Principles for Financial Market Infrastructure (PFMI) to systemically important stablecoins. This is expected to help guide regulators' thinking regarding both systemic and non-systemic stablecoins, in particular with a view to applying the principle of "same risk, same regulation".

In the APAC region, Japan passed a law on SCSs that essentially restricted the right to issue them to licensed banks, registered money transfer agents, or trust companies. Singapore has issued guidance on SCSs which will apply to non bank issuers above \$5 million in value. This will mean that issuers will have to hold a major payment

institution license. Both banks and non-bank issuers to SCS will be subject to regulatory requirements, including reserves and asset backing, timely redemption at par, customer disclosure, and solvency. In Australia, the central bank and the Australian Council of Financial Regulators is currently considering the regulatory arrangements for payment stablecoins.

DeFi

IOSCO has set up a work stream led by the US Securities and Exchange Commission (SEC) with the aim of publishing policy recommendations to support innovation by the end of 2023. This will focus on market integrity, investor protection issues, and financial stability. The approach of the work stream will be to understand emerging DeFi trends and risks and develop guidance on managing those risks within existing regulatory frameworks. It may also consider potential areas for regulation.

Japan has led policy research on decentralized autonomous organizations (DAO) and DeFi more generally. Australia has announced a review of innovative organization structures, which may include DAOs. The Monetary Authority of

Singapore (MAS) has launched Project Guardian to test the feasibility of applications in asset tokenization and DeFi. The first of their industry pilots explored the institutional trading of tokenized bonds and deposits through smart contracts to autonomously perform trading and atomic settlement.

Global Harmonization

Alongside the DeFi workstream, IOSCO has launched the Crypto and Digital Assets (CDA) group, led by the UK Financial Conduct Authority (FCA). The group will aim to publish a report and policy recommendations by the end of 2023, looking to support innovation and focused on concerns related to fair, orderly trading; transparent markets; market manipulation; investor protection; safekeeping; and custody.

These initiatives led by IOSCO are important given the need for globally consistent and co-ordinated regulatory action. A crucial starting point will be consideration of potential taxonomies of cryptoasset markets and their risks.

Regulation on a global scale will be shaped by crucial regional developments, including the European Union's Market in Crypto Assets regulation (MiCA); the application of existing

law under the SEC and US Commodity Futures Trading Commission (CFTC) and key developments in APAC. Hong Kong, for example, is implementing a harmonized regulatory environment for digital assets including service providers. Japan already has a well established legal framework for cryptoasset issuers and service providers. South Korea is considering legislation that would establish a comprehensive framework for regulating cryptoassets. The Australian Securities and Investments Commission (ASIC) recently allowed exchange-traded fund (ETF) backed by certain cryptoassets, and the government has commenced a token mapping exercise as a first step to determine regulations for the crypto industry.

On the negative side

It has certainly been a challenging year for global fintech industry, with rising inflation and interest rates challenging valuations, increased geo-political tension increasing uncertainty, and stress in the digital asset sector from events such as FTX and Terra/Luna.

These factors have had two consequences for the digital asset sector in terms of trust and confidence:

1. Accelerated the need for regulation for centralized exchanges and digital asset issuers that is consistent within jurisdictions and between them.
2. In the absence of regulatory clarity, the need for international industry standards that are robust, adhered to by participants, and can be trusted by regulators and policymakers has become crucial. On Industry standards, GBBC Digital Finance has continued to strengthen its existing standards and looked to develop new ones.

It is also critical that financial service regulators liaise closely with other relevant standard setting bodies, including those relating to anti-money laundering, privacy, and competition to avoid intended consequences.

Engagement with Regulators and Policymakers

GDF has continued to engage globally, regionally, and locally with regulators, policymakers, and other finance industry groups. As well as the excellent work done in the US, we have been working with industry groups such as the Securities Industry and Financial Markets Association (SIFMA), the Institute of International of Finance (IIF) and Structured Finance Institute (SFI). Additionally, we were delighted to be

accepted this year as an affiliate member of the IOSCO which will further strengthen our engagement.

2023: The Way Forward

2023 will be a year of learning, re-shaping, and better regulatory clarity.

- The two IOSCO task-forces on CDA and DeFi will seek to actively engage with relevant stakeholders and experts during the policy development phase to help inform their recommendations and expect to deliver a public report on proposed policy recommendations by the end of 2023.
- India will lead the G20 where regulating crypto and digital assets is expected to be a key issue. Again, engagement with key stakeholders will be important.
- More CBDC initiatives will continue to move from pilot to possible mainstream issuance
- With regulated stablecoin frameworks now in place, we will no doubt see more issuance
- DeFi will continue to attract attention, especially considering the challenge it poses to the platform economy, particularly in terms of data privacy and other benefits of disintermediation
- Alongside regulatory clarity, institutional participation in digital finance will continue as a natural part of growth for the digital asset ecosystem ■



Governance in Digital Assets Will be Critical to the Industry Regaining Credibility in 2023



Simon Taylor
Board Member
GDF

In the wake of the FTX crisis, digital governance in digital assets has come to the forefront. This excerpt from the new CEO of FTX Group, John Ray III, neatly illustrates why the issue is now so critical.

“FTX Group’s collapse appears to stem from the absolute concentration of control in the hands of a tiny group of grossly inexperienced and unsophisticated individuals who failed to implement virtually any of the systems or controls necessary for a company that is entrusted with other people’s money.”

This issue is compounded by the data coming to light over the last 12 months showing high volumes of wash trading on non-fungible tokens (NFT) marketplaces, insider trading, and a high concentration of control over governance in both centralized and decentralized cryptoasset projects and protocols.

For decades the world of regulated financial services (traditional finance, or TradFi) has implemented controls, processes, and regulations

to manage risks like market manipulation. This includes the separation of concerns, whereby one company or entity has limits on the activity they perform. For example, in the wake of the financial crisis, it became clear that a proprietary trading firm should not trade against the interest of their customers or risk customer assets.

Because it is a truly global industry with no clear legal jurisdiction or nexus, many protocols or exchanges do not neatly fit existing regulations. Lessons can certainly be learned from the best practices established by financial institutions in recent decades.

However, we must be careful not to overlook the significant advantages of the new technologies in blockchain, decentralized finance (DeFi), and digital assets. The ability to automate governance through smart contracts to create transparency and clear audit trails of decision-making with significantly more efficient, global financial markets is possible.

This is already evidenced by the work of many central banks in partnership with actors from across the TradFi and DeFi spectrum, from

Project Guardian showing stablecoins could be a workable solution for regulated financial institutions, to Project Marina investigating how automated market makers (AMM), a DeFi innovation, could be leveraged at scale for instant cross-border liquidity.

As we move into 2023, we need to address three main topics as an industry in open and transparent partnership with global regulators and governments:

- 1. CeFi governance challenges**
- 2. DeFi governance challenges**
- 3. Opportunities presented by technology**

CeFi governance challenges

Centralized exchanges, wallets, and operators (classified as cryptoasset service providers, or CASP) typically operate either “onshore” in a major jurisdiction or offshore from a smaller jurisdiction. While many have chosen to be regulated by a tier 1 global financial center or their local regulators, such as the US, Singapore, Germany, or the UK, this is not a uniform standard.

This global, 24/7 infrastructure is often regulated differently by jurisdictions but creates challenges for all. This lack of clarity makes space for risks to emerge.

Centralized exchanges may often ensure they separate their custody from proprietary trading operations and voluntarily report on doing so. There are no clear standards about the form this should take, with many using the requirements placed on regulated financial institutions and adapting those to the unique needs of the digital asset industry.

As long as the status quo of regulation and policy exists, consumers are at risk from FTX-scale harms as and when cryptoasset prices begin to rise again. To date, there is no clear way to prevent the risk from re-occurring other than the best efforts of good actors in the industry.

“Offshore” exchanges can innovate at pace and create new financial products that could benefit consumers or the broader financial system, but this “feature” can quickly become a “bug” in the event of a run-on the exchange scenario.

No single jurisdiction can prevent offshore exchanges from existing or operating acting independently, and often attempts to do so simply create another even harder-to-manage

alternative. “Same risk, same regulation,” while an impressive soundbite, misses the nuance. Often, the risks are similar *but not the same*.

Any solution to the potential consumer and systemic risks presented by the sector should learn from:

1. The principles that made financial services regulation successful in the past century
2. The best practices adopted by industry today
3. The new opportunities presented by the technology

DeFi governance challenges

DeFi protocols and projects operate a myriad of services intended to be available to anyone at any time who has access to the internet. A consumer or financial institution can interact with these services using a “wallet” that connects to the protocol’s decentralized application (DApp).

With the intent to replicate protocols like HTTP or WWW, many DeFi projects operate their governance transparently. The code that runs the project is available in the public domain, and any changes to the code can be discussed in a public forum and “voted on” by holders of governance token holders.

In practice, these projects may adopt multiple legal entities that perform different functions to ensure the DApp continues to operate and can respond to market changes and demand. A common legal structure includes at least:

1. A community or decentralized autonomous organization (DAO) that operates in the public domain which proposes protocol changes and votes on those changes
2. A non-profit or foundation which represents the protocol in a jurisdiction
3. A for-profit corporation that writes the software.

The non-profit or foundation takes instructions from the DAO. In turn, the corporation is paid to execute any changes required by the foundation on behalf of the DAO voters. The corporation can be “fired” at any time by the community represented as a DAO.

This area of financial services is still emerging, and its use cases continue to grow. However, the risks presented by poor transparency are largely avoided, with many users of DeFi almost completely unaffected by the FTX crisis’s fallout.

DeFi's largest risks are:

1. **Scams and hacks.** Because users often self-manage custody and the value can be transferred automatically and approved only by software, attackers can exploit any bugs.
2. **Centralization of governance.** The practical reality of most DeFi protocols is that a handful of wallets hold most governance tokens and these votes may not represent the will of the wider user community.

Opportunities presented by the technology

Crypto and digital assets continue to evolve at an unprecedented rate. While the recent market correction has limited the potential for consumer harm or systemic risk, history has shown that prices may rise again at some point in the future.

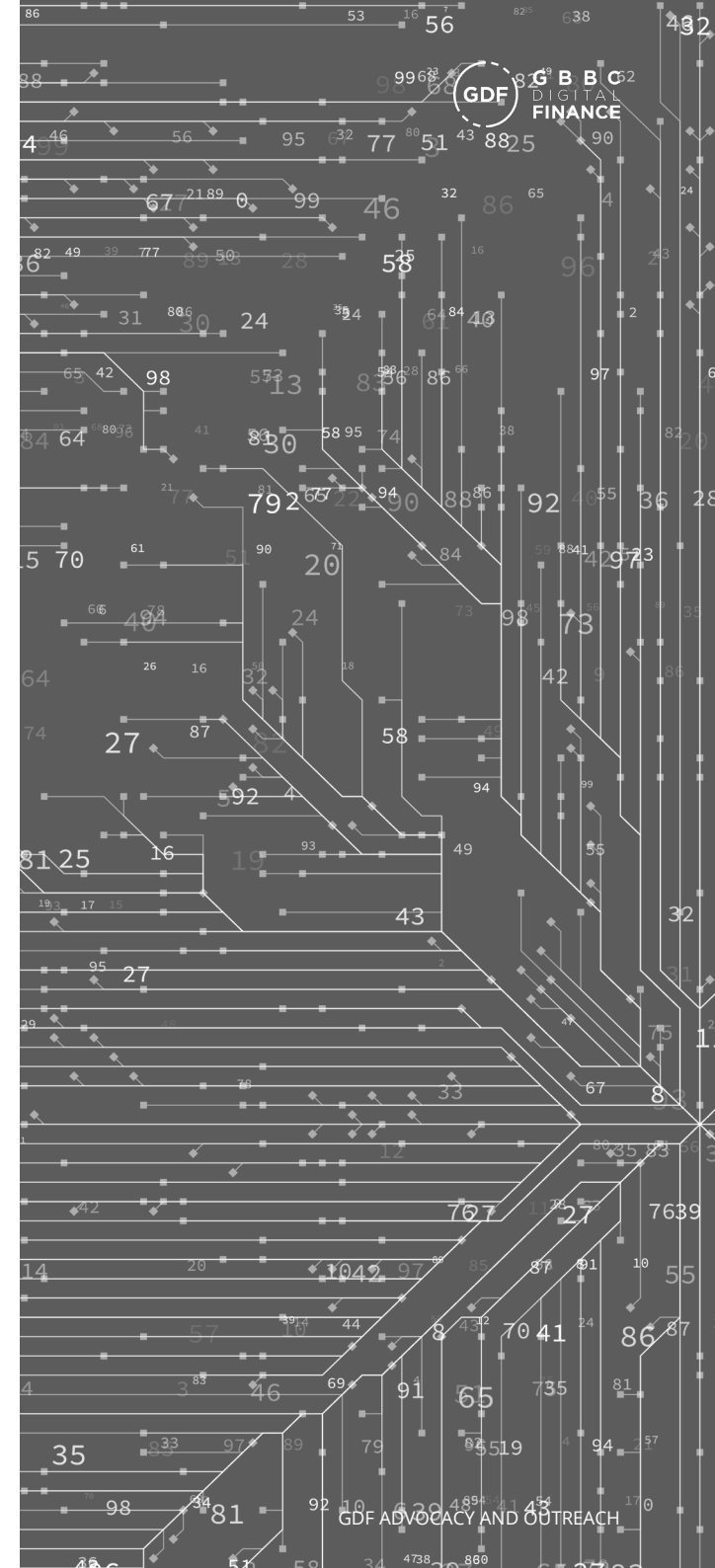
Even if today's cryptoassets fade, the technology is already being adopted by the private sector and governments to create more efficient and transparent markets. This leads to several questions:

1. How might we use the technology to innovate risk management as we're innovating on new financial products?
2. How can we automate compliance?
3. How can this be done in partnership with governments and agencies?

The technology has six fundamental features:

- **24/7.** The software runs without cut-off times and is available around the clock regardless of jurisdiction, including evenings and weekends.
- **Global.** Unless otherwise blocked, protocols and software are available to anyone with an internet connection by default.
- **Transparent.** All transactions that happen on the network are a public record. (Note this does not prevent transactions from happening "off-network" on paper)
- **Permissionless.** Anyone with compatible wallets can interact with any protocol or project deployed on a public network.
- **Programmable.** The networks can have complex logic and transactions created to automate workflows between multiple legal entities or parties.
- **Composable.** Often one project can "consume" the features of another. Where one bank cannot easily use another's software, one DeFi project can interact with another without any pre-existing relationship required.

Perhaps these present an opportunity for industry, states, and supernational agencies to collaborate in an open space to solve specific challenges and problems like wash trading, scams, hacks, and separation of client funds. ■



GDF PRIORITIES AND WORKING GROUPS



GDF Priorities and Initiatives in 2022

2022 started as all GDF years do: with the results of the GDF Members' Survey. Each year, we ask our community — representatives from the global crypto and digital asset ecosystem — to direct our focus for the year ahead.

We ask our members to determine the jurisdictions that are most important to them, the key topics they see as priorities for the industry, and their top regulatory challenges.

The 2022 programme was set accordingly, with the work led through the working groups as well as the GDF Regulatory Team, engaging with regulators, policymakers, and industry bodies

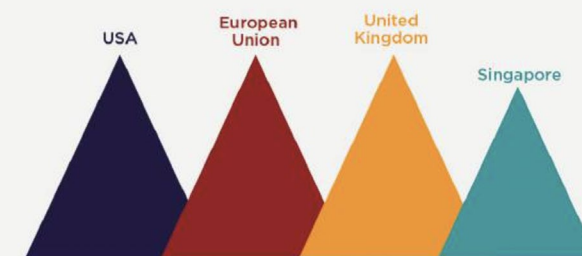
across the US, European Union, UK, and Asia-Pacific regions.

As well as being led by the Members' Survey at the top of the year, GDF remains agile in the face of industry development, and periodically seeks the advice of the membership on direction via industry roundtable discussions and the monthly Advisory Council meetings. As such, initiatives are developed to address topics that were not highlighted in the survey, such as the Sanctions and ESG working groups.

Whether through reports, standards development, codes of conduct, or vital regulatory consultation responses, we are led by

a driven community whose aim is to strengthen the crypto and digital assets sector through best practices and appropriate regulation. We thank the Advisory Council, Working Group Co-Chairs, and wider membership for their continued input to GDF's work. ■

Priority Jurisdictions for our Members in 2022 *GDF Member Survey 2021*



Priority Areas for the Industry in 2022 *GDF Member Survey 2021*



Top Regulatory Challenges in 2022 *GDF Member Survey 2021*





DeFi

Working Group



[Read Report](#)

Decentralized finance (DeFi) has been a top priority for both industry and regulators for the past two years according to GDF industry and GDF Regulator Only Forum surveys. Risk mitigation in this space is a complex area, whether considering top-down regulatory frameworks, or industry-led standards. Although regulatory attention has certainly increased with the market downturn seen this year, there are still few comprehensive regulatory solutions.

The DeFi working group released [The DeFi Report: Moving the Dialogue on Standards and Regulation Forward](#) in June. The report gives an overview of the key constituents of the DeFi ecosystem, and summarizes the top concerns outlined by regulators and policymakers so far. It proposes a two-track approach to addressing the risks in DeFi activities:

Track One – Short-Term Industry Transition: Industry Standards

In the absence of regulation specific to DeFi, the industry must coordinate to establish governance and investor protection standards, as well as industry-led monitoring, to demonstrate that it can operate to high standards of trust and predictability. This can be more rapidly expedited through analysis of standards for wholesale markets and adopting existing standards and principles to connect the dots to emerging policy and regulatory frameworks.

Track 2 – Medium to Long-Term: A Co-Regulatory Model

Industry and agencies must collaborate in a co-regulatory model to carry out the process of risk identification across the ecosystem in a shared engagement platform. This will accelerate the development of proportional and balanced regulation that is harmonized at a global level. In doing so, regulators have the opportunity to explore the design and operation of regulator nodes in a decentralized autonomous organization (DAO).



Steven Becker
CEO
UDHC



John Salmon
Technology Partner
Hogan Lovells



Justin Wright
Co-Founder, COO & CFO
YieldApp

The report is a call to action for both industry and regulators to better collaborate on the next steps for moving forward responsible innovation in the DeFi space. In 2023, GDF will look to further develop Tracks 1 and 2, with a special focus on RegDAO – a forum in which industry can safely identify the gaps in policy and opportunities to better manage risks, and provide visibility to global regulators of the challenges and opportunities in DeFi. ■



Custody

Working Group

Among the many discussions surrounding the development of the crypto and digital asset space, the custody of these assets is central to the sustainable growth of the industry.

Whether the regulatory focus on self-hosted wallets, or institutions moving to provide custody services for digital assets, custody was cited as a top priority for both regulators and the GDF membership this year. On the industry side, 2022 saw BNY Mellon lead traditional banks in offering cryptocurrency custody, and the FTX scandal sparked debate over centralized crypto exchanges and custody.

Regulators continued to be split in their approaches across Europe and the U.S.: the Securities Exchange Commission (SEC) is requiring that client assets be kept on balance sheets as liabilities. The Basel Committee for Banking Supervision, however, stated that custodial services do not give rise to credit, market, and liquidity requirements. We expect the discussion to continue to evolve over the next year.

GDF has partnered with the International Securities Services Association (ISSA) to launch a working group with a focus on delivering a report that lays out the key components and players in the digital asset custody space, the challenges and opportunities, the key differences from traditional finance, and the principles for best practice in digital asset custody.

The group is co-chaired by Swen Werner, State Street, and Seamus Donoghue, Metaco, and is supported by Deloitte as the consulting partners. In October, the working group convened for a two day workshop in London to kick off the conversation, determine the scope of the group, and map the content of the report. The working group will continue to meet virtually throughout Q1 2023, and expects to release the report in March. ■



Swen Werner
Managing Director, Digital Product
Development and Innovation
State Street



Seamus Donoghue
Chief Growth Officer
Metaco



METACO



Deloitte

In partnership with Supported by



KYC / AML

Working Group

2022 was a year of significant upheaval and events that, by the end of the year, had left the sector looking very different from how it started. Within this, a reshaping occurred with banks and institutions beginning to take greater interest as more regulators moved to implement or update their regimes, tightening governance around areas of perceived risk.

The anti-money laundering (AML) working group had two key focus areas throughout the year: the first was to assist regulators in shaping their regulatory frameworks by responding to consultations and holding bilateral conversations. The second focus was the near-completion of the [GDF Virtual Assets Due Diligence Questionnaire](#). The importance of this questionnaire cannot be understated.

Financial institutions have been looking for a best practice, standardized way to assess AML risk for virtual asset service providers (VASP) that they might wish to onboard for banking services. In the traditional finance (TradFi) sector, the Wolfsberg Questionnaire for Correspondent Banking has long been

the benchmark, and so with the agreement of Wolfsberg, a similar questionnaire was developed for VASPs.

As we move into 2023 and this important project comes to a close, it will allow more banks to consider onboarding VASPs for banking services; something that will not only expand and strengthen the virtual asset sector, but also allow TradFi to adopt blockchain and crypto into more of their own services.

The questionnaire will also serve to support the industry adoption of the Financial Action Task Force's (FATF) so-called Travel Rule, by fulfilling a key aspect of Travel Rule requirements whereby every VASP should conduct a due diligence assessment (for AML purposes) with counterparty VASPs.

We expect 2023 to be a year of maturity for the sector and to support this, the work of the AML group will continue. We welcome new members to join us to lead this important outreach and support to both TradFi and regulators around the world. ■



Malcolm Wright
Head of Strategy
Shyft



Nicky Gomez
Partner
XReg Consulting

Virtual Asset Due
Diligence
Questionnaire



MiCA

Working Group - Phase 2



XReg Consulting

Following the publication of the European Commission's proposed Markets in Crypto Assets Regulation (MiCA), GBBC Digital Finance (GDF) put together a working group to conduct an in-depth analysis of what the proposal contained and suggest amendments to this proposal as part of the legislative process in Europe on behalf of the digital finance and crypto community. The intention was for this group to follow the developments and be primed to respond to comments and amendments to the text as they come out of the institutions.

With the regulation now passed by the co-legislatures, and MiCA expected to come into force from 2024, the working group is now reconvening to engage with the European Institutions and supervisory authorities on the level 2 measures. The group will identify the delegated acts which are most important to GDF members and establish what the group's ideal outcomes will be so that this can be represented to the stakeholders in this process.

Given that there is not a formal industry consultation process, the group will be leveraging

its relationship with the European Banking Authority, the European Securities and Markets Authority and the European Central Bank who are the European Supervisory Authorities assigned to the delegated acts as well as the European Commission, European Parliament, and regulators from key national competent authorities to ensure that the impact of these measures are understood.

The group is co-chaired by John Salmon, Hogan Lovells, Dimitrios Psarrakis, XReg Consulting, and Lavan Thasarathakumar, GDF. ■



John Salmon
Technology Partner
Hogan Lovells



Lavan Thasarathakumar
Government and Regulatory
Affairs Director - EMEA
GDF



Dimitrios Psarrakis
Head of EU Affairs
XReg Consulting



Stablecoins

Working Group



The GDF community noted last year the need to review and update the [Stablecoin Code of Conduct](#) since its original publication in 2019, due to proliferation of stablecoin structures and uses as a form of payment, wealth storage, and transactional asset, particularly in the DeFi context. During 2022, we then saw the well-documented collapse of Terra and its so-called 'stablecoin' TerraUSD, alongside sister-coin Luna. This event led the Working Group to re-consider not just the appropriate best practices around structure, issuance, offerings, and maintenance of stablecoins, but also the [GDF Stablecoins Taxonomy](#) itself.

The group has also had to accommodate for stablecoin-specific regulatory and legislative developments, including the significant portion of the final European Union (EU) Markets in Crypto-Assets (MiCA) regulation covering the management of the perceived risks in this area. The proposal imposes more stringent requirements on stablecoins given the belief that they are more likely than other cryptoassets to grow quickly in scale and possibly result in higher levels of risk to investors, counterparties

and, significantly, to the stability of the overall financial system. Defining e-money tokens and asset-referenced tokens, the legislation provides various requirements as to disclosures, structural practices (such as 1:1 backing in cash and highly liquid assets) and registration. It therefore codifies some of the principles contained in the original Stablecoin Code of Conduct, whilst expanding on others.

With this backdrop, the GDF Stablecoin Working Group has been able to update the Code with the support of core industry body members, satisfying our specific objectives in ensuring that a relevant and up-to-date best practice Code is adopted by the community in a meaningful and timely way.

The Working Group proposed the final text of the refreshed [Stablecoin Taxonomy and Key Considerations document](#), alongside the updated [Code of Conduct for Stablecoin Issuers](#). The revisions to the Code and Taxonomy aim to:

- Outline the core differences between centralized and decentralized stablecoin



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Operations Manager
Digital RFQ Limited



Bryony Widdup
Partner
Hogan Lovells



Claire Wells
Associate General Counsel and Policy Lead
Coinbase



Leo Real
Chief Compliance Officer
Tether

issuers and implementations of the Code, including how algorithmic stablecoin issuers should view the Code as best practice if operating via a decentralized autonomous organization (DAO)

- Strengthen language pertaining to settlements and that they are to be made promptly in line with the expectations of clients
- Expand language around redemptions and honoring them in a reasonable timeframe
- Add a definition for treasury management and liquidity coverage for stablecoin issuers
- Emphasize compliance with pre-existing laws in the jurisdiction of operation such as the GDPR
- Add a conflict resolution section and a route of recourse for clients
- Expressly recognize the inherent risks with coins whose value is proposed to be stabilized by algorithmic means.

Looking ahead to 2023, we will release the updated Code and seek to gain wider adoption by the stablecoin community as a voluntary, ‘beyond compliance’ standard for stablecoin offerings. We are also keeping a close eye on developments in regulatory frameworks around the world, including the growing differentiation between issuers falling into ‘regulated’ and ‘to be regulated’ categories, and unregulated issuers, in different operating jurisdictions. We anticipate that the Code will require further updates in the future in line with the further evolution of this market. ■



[Read the Stablecoins code refresh](#)



Global Financial Institutions Cryptoassets Working Group



The notable changes in institutional sentiment in the last 18 months towards the crypto and digital assets have driven market participants' need to promote fair and transparent crypto markets, operating in line with key principles recognized as good practice by regulators.

Bringing together diverse members of the cryptoasset ecosystem, the Global Financial Institutions Cryptoassets (GFIC) Working Group convened to address this need and work towards a common financial conduct and operating standards framework for the institutional trade of cryptoassets.

Since its launch in February 2022, the group has issued a public [commitment statement](#), intended to formalize industry sponsorship with signatories of key market participants committed to the development and conducting their business in line with the standardized code of practice for financial institutions operating in cryptoassets.

The group has finalized a whitepaper on [Global Cryptoassets Standards](#). Supported by EY, the Global Cryptoasset Standards consists of a set

of global principles that are intended to promote a robust, fair, liquid, open, and appropriately transparent market in which a diverse set of market participants, supported by resilient infrastructure, are able to confidently and effectively transact at competitive prices that reflect available market information and in a manner that conforms to acceptable standards of behavior. The paper is now open for public consultation [here](#). Feedback is welcome until the 10th February.

Throughout the standards drafting process, the group has consistently sought regulatory engagement. The co-chairs produced GDF's first [Regulatory Knowledge Series](#) and led a discussion that aimed to capture how the group can best engage regulators to shape the future of institutional crypto adoption.

The group has been co-chaired by René Michau, Standard Chartered, and Anthony Woolley, Ownera. ■



René Michau
Global Head of Digital Assets
Standard Chartered



Anthony Woolley
Head of Business Development
Ownera



Sanctions

Working Group

Russia's invasion of Ukraine in March 2022 forced a new spotlight on the importance of global, coordinated, targeted economic sanctions. With this, the industry saw increased attention on the crypto and digital asset platforms' ability to remain compliant with sanctions law, with many fearing that these platforms would undermine government efforts to inflict damage through targeted sanctions.

GDF convened the industry and regulators in an Emergency Summit on the crypto industry's response to the Ukraine crisis on 2 March 2022. It was highlighted by both industry and law enforcement that the risk of sanctions evasion through crypto platforms is marginal and firms are generally compliant with sanctions requirements. That said, continued vigilance is of paramount importance.

"It is worth noting that the scale that the Russian state would need to successfully circumvent all US and partners' sanctions would render cryptocurrency as an ineffective tool. However, crypto can be exploited when proper controls are not in the system, and the US remains vigilant

against this threat and the use of crypto as a means for evading sanctions."

– Carole House Director of Cybersecurity and Secure Digital Innovation at the US National Security Council.

To address the concerns of law enforcement and policymakers, the Sanctions Working Group convened members to deliver a report on the operational components of sanctions compliance in crypto and digital asset platforms, and suggest recommendations to policymakers on ensuring that the guidance on sanctions compliance is robust and effective.

"There has never been a more important moment in the crypto and compliance industries to make sure that we have the controls in place to mitigate the risk of complicit actors," said working group co-chair, Ari Redbord.

Since the report was released in June 2022, the Office of Foreign Assets Control (OFAC) of the U.S. Department of the Treasury blacklisted crypto tumbler Tornado Cash after nearly \$7 billion was laundered through Tornado Cash protocol, some of it connected to criminal



David Carlisle

Vice President of Policy and Regulatory Affairs
Elliptic



Ari Redbord

Head of Legal and Government Affairs
TRM Labs

actors such as the Lazarus group out of North Korea, or other state-sponsored hacking groups. Acknowledging the severity of these risks, the discussion on Tornado Cash is significant for the entire industry as it is the first time that the US government has imposed sanctions on a piece of software rather than an intermediary or person.

In light of these events, GDF held a roundtable discussion in September which highlighted some of the complexities with remaining compliant with sanctions, including scenarios in which a user is implicated due to a 'dusting' attack. Participants concluded that further engagement with agencies on these complexities is paramount, as well as discussion on the practical, industry-led solutions to these challenges. The group will meet again in 2023 to further this work. ■

Private Markets Digitization

Steering Group

In 2020, the GDF Private Markets Digitization Steering group (PMDS), co-chaired by Ownera and Hogan Lovells, brought together over 70 leading institutions, including banks, asset managers, exchanges, fintech, and international law firms to digitize private markets. That year, the group published a proposal for a digital security network specification, which would be open to all regulated institutions; multi-vendor; ledger agnostic, and have open interfaces, known as FinP2P.

Through 2021, extensions to the API specifications were published to support secondary trading and collateralization of assets. This unlocked the ability to pledge digital securities as collateral for lending and borrowing, opening up the world of DeFi to regulated institutions at a global scale.

Throughout 2022, multiple working group members have been working on projects that are real-life examples of the FinP2P open source protocol being used in production. These projects encompass the issuance of multiple types of assets including pre-IPO companies,

money market funds, institutional real-estate companies, private equity funds as well as unique applications of carbon offsets.

In November, the group convened in the first in-person special GDF Private Markets session, as part of the London Digital Assets Week. The session focused on asset managers in the digital asset space and brought to stage a number of the largest asset managers and tokenization trail blazers in the industry, to talk about their digital asset programs, the assets, the models, the technology, and the importance of interconnecting to the rest of the group member's programs via FinP2P.

The group is setting up a FinP2P Node agreement with GDF, setting out the rights, obligations, and registration of members to the network, with more to follow in 2023. ■



Anthony Woolley
Head of Business Development
Ownera



Lavan Thasarathakumar
Government and Regulatory
Affairs Director - EMEA
GDF



*The PMDS group presents at
London Digital Assets Week*



ESG

Working Group



[Read Report](#)

Although not set as a top priority for the GDF community in the 2021 Members' Survey, the climate impact of crypto and digital assets increasingly became a focus for regulators and policymakers at the beginning of 2022.

The ESG Working Group set out to develop a report and best practice framework to help the industry meet Net-Zero targets and adopt science-based pathways. Whether because of oncoming regulation, or because firms are already required to meet the standards of regulated counterparties, it is important to map and understand what scope 1, 2, and 3 reporting looks like for the complex value chain of the digital assets sector.

Through promotion of accurate, transparent methodologies, and improved data collection, the guidance is aimed to support clearer, more accurate, and greater comparability of reported emissions impact and forward-looking targets for various digital assets. By promoting an industry-wide approach that recognizes methodological and data realities for different parts of the digital asset value chain, this guidance aims to support development of metrics for current emissions as well as to support short-, medium, and long-term targets for digital assets that are aligned with global Net Zero emissions by 2050 and the target to limit global temperature rise to 1.5° C.

Led by our co-chairs, Bryony Widdup, Hogan Lovells, and Blake Goud, RFI Foundation, the working group convened members to discuss the challenges with understanding the climate impact of cryptoassets activities. In September, the group hosted two workshops on methodologies for the allocation of carbon in crypto. Participants, including academics, miners, platform providers, and exchanges, discussed the available methodologies, and the challenges with being able to compare data that is based on very different activities.



Bryony Widdup
Partner
Hogan Lovells



Blake Goud
CEO
RFI Foundation

The work of the ESG Working Group will continue next year alongside the GBBC sustainability initiatives. This will form part of a holistic approach to the role of crypto and digital assets in climate, social, and governance concerns – whether strengthening digital asset's sustainability credentials, or the use of tokenization and distributed ledger technology to strengthen legacy processes across climate finance, financial inclusion, supply chain management, and beyond. ■

REGULATORS AND POLICYMAKERS



Developing an International Regulatory Framework for Cryptoassets



Rupert Thorne
Deputy Secretary General
FSB

Cryptoasset markets continue to be fast-evolving. The turmoil in these markets in the past year, including a sharp fall in aggregate market value and a number of prominent failures in the sector, have highlighted a number of structural vulnerabilities in these markets. It has also given extra impetus to the ongoing work of the Financial Stability Board (FSB) and the international standard-setting bodies to address the potential financial stability risks posed by cryptoassets, including so-called stablecoins, and to establish a global framework of regulation and supervision, including in non-FSB member jurisdictions.

The FSB is coordinating the international work on regulation and supervision of cryptoasset activities, and in October 2022 we issued for public consultation a comprehensive set of proposals consisting of: (i) proposed recommendations to promote the consistency and comprehensiveness of regulatory, supervisory and oversight approaches to cryptoasset activities and markets; and (ii) proposed revisions to the FSB's high-level

recommendations of October 2020 for regulation and supervision of "global stablecoin" arrangements.

The recommendations are grounded in the principle of "same activity, same risk, same regulation": where cryptoassets and intermediaries perform an equivalent economic function to one performed by instruments and intermediaries of the traditional financial sector, they should be subject to equivalent regulation. In parallel, the framework also proposes that regulation should take account of novel features and specific risks of cryptoassets and harness potential benefits of the technology behind them.

Among the structural vulnerabilities to be addressed, the market turmoil exposed inappropriate and unsustainable business models that depend on expectations of ever-increasing cryptoasset prices or rely on new investors to serve the returns they promise to existing investors; liquidity and maturity mismatches that expose platforms and protocols to run risk; highly leveraged positions, which led to margin

calls or automatic liquidations; and a high degree of interconnectedness within the cryptoasset sector. These vulnerabilities were amplified by the lack of transparency and disclosure in the cryptoasset sector, flawed governance, inadequate investor protection, and weaknesses in risk management.

The failure of FTX and its fallout on other market players also highlight a number of issues with crypto trading platforms combining multiple activities that are normally subject to regulatory firewalls in traditional finance. They include: vulnerabilities arising out of vertical integration; lack of transparency on corporate structure, key function holders, and financial positions; inappropriate use of clients' funds; reliance on self-issued, unbacked tokens; and interconnectedness with affiliated entities.

The FSB closely monitors the risks to financial stability from cryptoassets, as highlighted in its February 2022 assessment. While the limited spillovers to date outside the cryptoasset ecosystem reflect the still low interconnectedness with the traditional financial

system, the situation could change rapidly as cryptoasset markets recover. The rapid evolution and international nature of these markets also raise the potential for fragmentation or arbitrage. Although the extent and nature of cryptoasset use varies somewhat across jurisdictions, financial stability risks could rapidly escalate, underscoring the need for both timely and pre-emptive evaluation of possible policy responses as well as regulatory action where existing requirements apply.

The FSB's recommendations are high-level and retain flexibility so that they can be incorporated into a wide variety of regulatory frameworks in individual jurisdictions. The recommendations cover a number of themes similar to those in regulatory frameworks for traditional finance, including strong governance, effective risk management, adequate disclosure and timely data reporting. However, within these themes, the recommendations also target specific features that lead to weaknesses in cryptoasset activities and markets. One typical issue is that many activities fall short of effective governance and control mechanisms that are commonly expected of financial institutions. Some are operating without any established governance structure, some others may even involve

misaligned incentives because some entities may exercise control over the operations but not take proportionate governance responsibilities.

To address this, the recommendations propose that crypto service providers should have in place a robust governance structure. Likewise, in response to significant data gaps in the cryptoasset ecosystem, the recommendations cover the need for requirements on data collection, storage, and reporting.

High regulatory standards should apply in particular to cryptoassets – such as stablecoins – that could be widely used as a means of payments or store of value, as they could pose significant risks to financial stability. The proposed revisions to the high-level recommendations for the regulation, supervision, and oversight of “global stablecoin” arrangements strengthen the requirements for users’ redemption rights and for a robust stabilization mechanism. As the report notes, many existing stablecoins would not meet the FSB recommendations.

The public consultation on the recommendations ended in December 2022, and the FSB will finalize the recommendations by July 2023.

Cryptoassets are inherently global, so the FSB will continue to coordinate work among national financial authorities and international standard-setting bodies on the comprehensive and consistent regulation, supervision, and oversight of cryptoasset activities and markets. In addition, in 2023 the FSB is analyzing developments and potential risks to financial stability stemming from decentralized finance (DeFi) and will consider in 2023 whether additional policy work is warranted based on the findings from this work. ■

Virtual Assets: Global Trends and Compliance



Violaine Clerc
Executive Secretary
FATF

The Financial Action Task Force (FATF) sets global anti-money laundering and counter-terrorist financing standards. Our goal is to stop criminals from being able to launder the proceeds of their crimes, and further fuel their activities: to prevent drug dealers, arms traffickers and people smugglers from making a profit at the expense of others. Doing so, our work ultimately contributes to stronger economies and safer societies.

Criminals will use whatever means available to move and hide illicit funds, including virtual assets. The first major criminal investigations involving virtual assets were almost a decade ago. Since then the risks associated with virtual assets, or crypto, have grown, attracting criminals with their potential for anonymity, speed and international reach.

Scams and money laundering cases involving virtual assets are on the rise. Recently we have seen an increase in the use of virtual assets for terrorist financing. Groups like the Islamic State of Iraq and the Levant (ISIL) and al Qaeda, as well as extreme right wing groups, are using

them to raise and move funds. At the same time, there is the growing use of virtual assets by North Korea to finance its weapons for mass destruction programme. There are cases involving attacks on crypto exchanges and the stolen assets later being used to finance the procurement of weapons components.

The FATF has taken action to respond to these risks, including monitoring emerging risks, sharing experience, and incentivising compliance. This includes working with countries to help them implement FATF's Recommendations to cover the virtual asset sector, which continues to see huge growth and development. This has helped incentivize companies to invest in technologies to improve regulation.

However, many countries still lack an effective regulatory framework or any framework at all. More than three years since the FATF standards were extended to virtual assets, implementation is still lagging and there is uneven application of the standards globally. Only 50% of countries that reported on the implementation of these standards in June 2022, have introduced laws to

regulate virtual assets service providers. Of the 83 countries that have been formally assessed against the revised standards, three quarters are partially compliant or non-compliant. Not one is fully compliant.

This is clearly not good enough. The lack of implementation makes the virtual assets sector more vulnerable to money laundering and terrorist financing, and holds the industry back.

A key component of the FATF standards in this area is Recommendation 16, known as the Travel Rule. This requires virtual asset service providers (VASP) to collect and transmit certain information about the senders and recipients of virtual assets. The rule has been a challenge to implement as companies have not had the infrastructure or technology to comply. This led to a catch-22. Countries delayed implementing the Travel Rule while they waited for industry to develop technological solutions. At the same time, the lack of consistent global implementation left the industry facing a patchwork of different national approaches, which removed incentives to invest and develop or find global technological solutions.



As a result, the implementation of the Travel Rule is particularly poor. As of June 2022, only a fraction of countries reported having passed legislation to implement the Travel Rule, and even fewer are enforcing these requirements. The lack of consistent regulation around the world means Travel Rule solutions remain scarce, and those that do exist are being used inconsistently. Even where solutions have been developed, many have serious deficiencies. For example, some technologies do not include the necessary information relating to the beneficiary, or rely on transaction identifications rather than unique customer addresses. In addition, in many cases, a solution used in one jurisdiction is not technologically compatible with the solution used in another jurisdiction, which further complicates transfers.

These issues create costs for businesses, disincentivize compliance, and encourage firms to move to countries with the weakest regulation. All of these issues need to be urgently addressed and the FATF is working with countries and partners to ensure the sector continues to improve its regulatory compliance.

As virtual assets are inherently international and borderless, non-compliance in one country has serious global implications. Uneven

implementation across the world creates opportunities and safe havens for criminals, terrorists, and nuclear proliferation networks.

If countries fully and effectively implement the FATF's standards, it will become increasingly difficult for virtual asset service providers to operate from unregulated jurisdictions. This, in turn, will reduce the risks of virtual assets being used for money laundering or terrorist financing, and will make the global virtual asset market safer. The FATF will continue to support countries to comply with our standards and consider how to make sure all significant centres for virtual asset activity are properly regulated. ■

Global Approaches are Crucial for Fair, Efficient, and Coherent Policies



Carmine di Noia
Director for Financial and Enterprise Affairs
OECD

The turmoil in cryptoasset markets during 2022 has served to underline the need for a regulatory debate about these markets, as well as for international discussions about approaches to deliver a fair, efficient, and coherent policy environment across countries.

While the Organization for Economic Cooperation and Development (OECD) has long highlighted the potential benefits of blockchain innovation in finance, it has also been clear on the inherent risks in crypto-asset and related decentralized finance markets. These risks were perhaps less obvious to participants during the market's bull run, but with elevated losses in the current downturn and a series of high-profile collapses among major actors, long-standing concerns among market authorities have now crystallized.

Several of these collapses are under ongoing investigation, and it's important not to pre-empt official findings. However, the concerns the OECD has previously flagged in these markets are exactly what financial regulation was created to address. They range from weak governance to

poor product design, a lack of disclosure around conflicts of interest, lack of separation between duties, and the potential for outright maleficence.

The costs of these failures have been borne largely by retail consumers, on whom 2022's collapses disproportionately fell, and by the responsible operators in these markets who suffer from collateral damage in the form of weakened trust and negative reputational spillovers. They threaten public confidence in financial authorities' ability to offer appropriate protections to investors and ensure good financial conduct. They risk derailing the development of innovations and technologies which could one day prove beneficial to our financial system.

There is rising political and regulatory pressure to apply the same rules and levels of oversight to cryptoasset service providers as their counterparts in traditional finance. A number of major markets took steps in this direction in 2022, and as policymakers around the world weigh responses and consider efforts to craft regulatory frameworks, reflecting the global

nature of these markets will be critical to developing effective and enforceable rules of the road.

More than a decade after the first cryptoassets were developed, many players in these markets may still be offering regulated products in a non-compliant way, or operating outside the regulatory perimeter. Decentralized technologies have posed questions around who and how (and if) to regulate in the face of disintermediation and automation, and how to classify a range of novel digital assets. These questions are not fundamentally unanswerable, particularly given the importance of centralized actors, and the increasing use of technology-neutral approaches to financial regulation in many jurisdictions. But the borderless dynamics in these markets, where participants could be based in almost any country, bring additional layers of complexity to any solution.

This complexity is compounded by the wide range of international issues presented by cryptoasset markets, in some cases more so than traditional finance. They include the potential for currency substitution in some economies,

circumvention of legitimate capital controls, illicit uses and tax evasion, as well as interactions with cross border data rules and privacy regimes. The potential impacts on and from central bank digital currencies, as these move from research to operational stages, are also important emerging factors. These are cross-cutting issues that require a concerted and deliberate cross-border effort to fully address.

Complex and multifaceted challenges to global financial governance are not new, and the international community has demonstrated its capacity meet them time and again. From the establishment of the Bretton Woods system in 1944, to the body of OECD instruments supporting fair and efficient capital flows, to the ongoing work of the Financial Stability Board (FSB) since 2009, we have adapted our international financial architecture as global financial markets have evolved. The digitalization of money brought on by cryptoassets is yet another evolution.

Today, international standard setting bodies are already developing or implementing rules and recommendations, including the FSB on systemic risks, the Financial Action Task Force (FATF) on money laundering and terrorist financing, and the OECD on tax transparency. These efforts

are of huge value, but they may also be limited to standard setters' existing remits and the prevailing patterns of international co-operation. There are bound to be gaps, and the wide range of issues in cryptoasset markets demand a more connected and coherent international approach.

The OECD has been a leading source of analysis and policy guidance on cryptoassets since these markets' early days. This year we added the first international policy standard for blockchain to our expansive body of legal instruments, many of which form the basis for international rules and best practices across some key areas impacted by cryptoasset innovation. Complemented with instruments housed across our fellow standard setting institutions, the international community has a solid foundation on which to develop and deliver a comprehensive global approach to cryptoasset governance, and the OECD stands ready to help advance the global debate. ■

Fix the Problem, Not the Blame

There is an old saying I try to live by when something goes wrong: “Fix the problem, not the blame.” Regarding the collapse of FTX, if initial reports prove to be true, there undoubtedly are wrongdoers who must be held accountable under US and international law. Multiple investigations are underway for that purpose.

Yet, affixing blame without meaningful corrective action will not make spot crypto markets safer, protect consumers, or help restore trust in the marketplace. Fixing these problems must begin with policymakers providing clarity and regulatory certainty about the application of existing laws to the new world of digital assets.

Clarity through cooperation

The Commodity Futures Trading Commission (CFTC), where I serve as a Commissioner, regulates commodity derivatives products such as futures contracts and swaps, and exercises limited enforcement authority over spot markets related to these derivatives. Our colleagues at the Securities and Exchange Commission (SEC) have jurisdiction over securities.

The most frequent question I get asked regarding spot crypto products is whether they are commodities subject to CFTC jurisdiction or securities subject to SEC jurisdiction, or both. This question feeds into the popular – but unhelpful – narrative of competition between the agencies over crypto jurisdiction.

But this is not a game. People have lost significant sums of money; faith in markets has been shaken; and confidence in our regulatory system is in question.

It is time for the CFTC and the SEC to work together on a thoughtful framework – with a meaningful opportunity for public input – offering certainty to the market about how we will determine on which side of the jurisdictional line a product falls. The two agencies must attack this problem together, creating a cooperative approach moving forward.

The CFTC and SEC have done this before through joint rulemakings defining their approach to distinguishing their respective jurisdiction over swaps (CFTC) vs. security-based



Commissioner Summer Mersinger
CFTC

swaps (SEC), and over futures on broad-based (CFTC) vs. narrow-based (SEC) security indexes. We can similarly work together, through constructive dialog, to develop a framework both agencies – and the public – can embrace regarding spot crypto jurisdiction moving forward.

We also must engage our state and international regulatory partners in this important effort. Viewing the problem (and its potential solutions) holistically will enhance our collective ability to achieve our shared goals of safe, efficient, innovative, and resilient spot crypto markets.

Clarity from within

Of course, we also should look within our own respective agencies and clarify the application of existing laws to the new technology, organizational webs, asset classes, and market participants associated with spot crypto trading.

For starters, we at the CFTC should be candid with the public about the existing legal limitations in our authority that only allow after-the-fact enforcement actions and prevent

us from providing more fulsome protection to those trading in spot crypto markets. Consumers will be far better served by clarity about the scope of our oversight authority before they trade than by enforcement actions after the money is gone.

Another area at the CFTC that is ripe for review involves our conflict of interest rules for the derivatives trading platforms and clearinghouses that we regulate. Typically, these entities are not affiliated with spot markets. But in the crypto space, we are seeing complex organizational webs where CFTC-regulated derivatives markets are affiliated with unregulated spot markets and even proprietary trading arms, raising worrisome questions around what constitutes (and how best to address) a conflict of interest in this context.

It is incumbent on the CFTC to evaluate our conflicts rules to see if they can be clarified – and, if necessary, revised – for these newer corporate relationships in the crypto space so we can prevent self-dealing and improper commingling of customer assets, and assure that the actions of our registrants are taken in the best interests of the regulated derivatives markets.

Find solutions

Legislation is needed to fill the jurisdictional gaps in the spot crypto markets, but citing the lack of legislative action as the reason for the recent market failures does nothing to fix the problem. Innovations in digital blockchain technology hold vast potential for our financial system. But to foster such innovation, we must all work together to protect consumers, enhance risk management, and restore faith in spot crypto markets.

It is time to come together and start fixing the problem. ■

Powering Regulatory Technology Through Artificial Intelligence



Wai Lum Kwok
Senior Executive Director
ADGM

Using artificial intelligence (AI) to map and classify the regulations and rules associated with financial regulation is a significant development that could have far-reaching implications for the world of decentralized finance (DeFi). By creating a knowledge graph of such information, it is possible to convert regulatory requirements and context into code or smart contracts. This could enable the development of innovative financial products and services that are built on blockchain technology, and drive the growth and adoption of DeFi.

At the Financial Services Regulatory Authority (FSRA) of Abu Dhabi Global Market (ADGM) – the international financial centre of UAE’s capital, we undertook a project in 2021 to digitalize and map our regulations and rules into a knowledge graph using AI, with the aim to help external stakeholders such as financial institutions, compliance advisory firms and regulatory technology (regtech) solution providers better navigate our regulatory requirements.

In the world of finance, there are often many different regulations that apply to different types of transactions and financial products. Through

the knowledge graph, we hope to reduce the complexity associated with financial regulation, and make it easier to:

- (i) understand and apply regulations to different situations; and
- (ii) track and monitor compliance with such regulations.

This could help the industry move towards automating regulatory compliance, which is often difficult due to its highly cognitive and contextual nature.

Therefore, the use of AI to map financial regulation and unlock the potential of automated compliance could potentially one day drive the growth and adoption of DeFi. This could in turn pave the way for the development of more integrated and efficient financial services built on blockchain technology and smart contracts.

Open regulation

However, before regulations can be programmed into smart contracts, there are several steps that need to be taken. One of the key challenges is ensuring that the knowledge graph accurately

and completely represents all of the relevant regulations, rules, and guidance available at any given time.

To this end, the FSRA recently launched the Open Regulation (OpenReg) initiative to share our knowledge graph, AI model, data and research for peer review in the ADGM GitHub repository. This is the first time a financial regulator has tried to provide regulatory context in the form of machine-readable regulations and AI models. By working with the industry and developer community, and providing access to the underlying data that we used to create our own AI model, we are looking toward building smarter AI and regtech solutions that make financial regulation simpler, clearer, and more effective.

The process of converting the information contained in the knowledge graph of financial regulations into smart contracts is another complex and challenging task. However, with the use of the right governance approach or vehicle, it would be possible to create a reliable and efficient system that can benefit the DeFi ecosystem.

Pushing the boundary: Regulatory DAOs

A regulatory focused DAO, or decentralized autonomous organization, is one such vehicle that could be used to manage and enforce regulatory requirements. By using a DAO, it may be possible to create a decentralized and transparent system for engaging with firms that are subject to regulation, such as:

- Creating a transparent and accessible venue for regulatory information. A DAO could be used to create a decentralized venue where firms can access and share information about regulatory requirements, such as reporting requirements, compliance standards, etc.
- Using a DAO to create smart contracts that enforce regulatory requirements or identify potential regulatory violations for appropriate remedial actions. For example, a smart contract could be used to automatically trigger a report or other compliance action when certain conditions are met.

In this regard, OpenReg has the potential to be a valuable resource to improve the transparency, efficiency and effectiveness of regulatory compliance. By using OpenReg, it is possible to make the rules and regulations that are enforced by the DAO more easily accessible and understandable to all parties involved.

We look forward to working with the industry, regtech companies and data science community to review our regulatory knowledge graph and use the OpenReg AI training ground in building the next generation of regtech solutions. ■



A Journey Towards Regulation of the Crypto Token Market



Peter Smith
Managing Director, Strategy, Policy & Risk
DFSA

Regulators globally are still divided on the need for regulation of digital asset business and, if regulation is needed, the appropriate form. Even where jurisdictions have chosen to regulate this developing industry, different approaches have been adopted, with a spectrum that ranges from, at one end, regulating digital asset business solely in relation to financial crime issues, such as money laundering and terrorism financing, to, at the other end, developing entirely new financial services regulatory approaches and terminologies. Somewhere between these points sit those jurisdictions who have chosen to apply existing regulatory structures to this sector, often more or less unchanged.

As the use of distributed ledger technology (DLT) and blockchain develops further, with more use cases being identified and assessed, different regulators are also focusing on specific issues, whether that be wholesale market use cases around bond issuance or clearing and settlement, or, for central banks, approaches to the creation and use of central bank digital currencies (CBDC).

The Dubai Financial Services Authority (DFSA), as the regulator in the Dubai International Financial Centre (DIFC), has been navigating its own path through the developments, opportunities and challenges of the digital asset industry to find where we should sit on the spectrum described above.

Our starting point was – and remains – that we are committed to developing robust, proportionate, and balanced regulation to support innovation and experimentation in financial services, while paying appropriate attention to the needs of customers and the proper and efficient operation of markets.

Our first step in this journey was the publication in March 2021 of a [consultation](#) on security tokens. We had some really helpful and informative engagement with industry stakeholders, including a roundtable with GDF members, and introduced new rules, now under the heading Investment Tokens, in October 2021. We started with this part of the digital asset world for a couple of reasons. Firstly, investment tokens are conceptually and economically similar

to instruments we have regulated for many years – conventional equities, bonds, and so on. Secondly, a number of firms were interested in moving into this area, so we thought it appropriate to encourage that industry demand.

We then moved on to look at some of the newer instruments that have emerged in the digital asset area. In reality, we had already been looking at, and considering a regulatory regime for, this area for several years. We considered introducing rules on initial coin offerings (ICO) in 2017/2018, when we first had people approaching us wanting to do ICOs in or from the DIFC, but we are glad we didn't act at that time. The market has moved on so much that the rules we might have put in place would have become redundant. We prefer to propose new regulation when we can do so in a thoughtful, comprehensive and transparent manner.

In March 2022 we published a comprehensive [consultation paper](#) on regulation of what we chose to call Crypto Tokens. This set out detailed requirements for firms wanting to provide financial services in relation to crypto tokens,

including proposals on safe custody of client assets, technology governance, anti-money laundering (AML) and counter financing of terrorism (CFT), and other consumer protection obligations.

After a lengthy consultation period, and an in-depth analysis of the responses, the regime for crypto tokens came into force on 1 November 2022. In October, we issued an extensive [Feedback Statement](#) to explain what we had done with responses to the consultation. We set out our thinking in areas where changes were made, or where we chose not to make changes that were suggested, as well as highlighting areas where we will do more work. Regulating in the digital assets area is not a one-off exercise – industry developments make it essential that we keep our regime under review and update it as needed. The key features of our crypto token regime are described below.

Token taxonomy

It is important to be clear about which tokens fall within our financial services regime, which we will look at solely from a financial crime angle, and which are either prohibited or sit outside our regime. We have set this out in our rules and also included an illustrative “Token Decision Tree”

to help market participants classify the type of token they would like to operate with.

Recognition of crypto tokens

We have decided that not all crypto tokens can be used by firms to do business in or from the DIFC without some checks. We think this is consistent with the approach adopted by most other regulators, who have some form of sign-off process or list of approved tokens, although the degree of transparency of this process varies. In line with our aim of being transparent, we have set out specific criteria that need to be met for the DFSA to recognise a token. With the same aim in mind, a [list](#) of Recognized Crypto Tokens is available on the DFSA website.

Non-fungible tokens (NFT)

For now, NFTs do not fall within the scope of our financial services regulation. However, NFTs that are within the definition in our rules will fall within our financial crime regime and need to comply with our AML/CFT rules. Issuers of NFTs, and persons providing services in relation to NFTs (or utility tokens), such as auction houses and issuance platforms, will have to register with the DFSA as a Designated Non-Financial Business or Profession (DNFBP) and comply with the anti-money laundering regime.

Prohibited tokens

Certain tokens are prohibited due to concerns about the transparency and efficacy of their operations. These include algorithmic tokens and privacy tokens. Companies must be based in the DIFC. We expect all companies that want to be licensed by the DFSA and provide crypto token services to have a substantial presence in the DIFC and have their day-to-day management and oversight of their business carried out in the DIFC.

Financial services activities

A range of financial services activities can be carried out with crypto tokens. This includes the provision of custody, managing assets, trading and arranging and advising, for example.

Be prepared

Companies wanting to provide a crypto token business should be well prepared. In addition to completing the appropriate application forms, we expect companies to prepare well thought-out regulatory business plans, business continuity plans, and financial crime risk assessments (or amendments to these documents if they are already authorised by the DFSA), for example.

We would also expect to see evidence of how companies will comply with the new requirements in the crypto token regime, for example, technology governance, consumer disclosures and risk warnings.

Future areas of policy focus

To enable us to continue developing our regulation in the crypto area, we will think further about AML/CFT issues, including the Travel Rule; staking; and decentralized finance.

Again, we will focus on striking an appropriate balance between innovation and market development on one hand, and consumer protection and risk management on the other.

Our journey so far has involved discussions with many stakeholders, including other regulators, firms, industry bodies, consultants, lawyers, and many more. The main thing we are certain of, after all this work, is that the journey is not finished. Technological developments will continue. We will aim, as always, to provide regulation that is risk-based and avoids unnecessary burden. ■

Setting the Regulatory Baseline to Secure Global Interoperability Across Virtual Assets



Deepa Raja Carbon
Vice Chairperson
Virtual Assets Regulatory Authority

Virtual assets have been with us for well over a decade, and today we have an increasing number of financial services authorities, legislative and regulatory bodies, market assurance institutions, and tier-1 market-makers across advanced and developing economies acknowledging that they are here to stay.

The dynamic and fast-evolving world of virtual assets is unique in that it is not a vertical sector, but rather a transversal growth accelerator. Its transformative potential in enabling the future global economy is evidenced in that it:

- (a) touches practically every industry cluster across international markets;
- (b) safely democratizes control by enforcing individual accountability, and collective responsibility; and
- (c) interacts with every tier of society making mass economic empowerment a tangible reality.

The year 2022 has highlighted the extreme volatility, surprising unpredictability, and

instantaneous escalation further exacerbated by the constancy of change within the sector, raising the alarm on the lack of de-risking mechanisms, and de-escalation levers to effectively stem the tide. Given the material influence this virtual asset sector is likely to wield on the future of finance, the limited awareness of its inherent risks, and very real magnitude and pace of contagion – there are calls for decisive and cohesive action across governments.

Dubai's Virtual Assets Regulatory Authority (VARA) was established in Q1 of 2022 as the world's first and only specialized regulator, and independent authority dedicated to governing the virtual asset industry within its regime. With the mandate to devise a progressive operating framework, VARA has embarked on the bold mission of creating the global regulatory baseline that offers secure cross-border interoperability, and sets the gold standard for responsible virtual asset participation.

How are we going about achieving this?

Even as VARA expects to structure legislative guardrails to secure the niche regulatory framework that it will design for virtual assets,

we will harness insights and expertise from traditional finance, and use relevant tested principles as the baseplate to build on.

1. When governing a 24x7 borderless sector where risks are not ringfenced to any single jurisdiction, establishing an 'acceptable baseline' of market assurance, economic governance, and consumer protection standards with an agreed risk-floor between the collaborating governments is crucial. VARA has activated dialogues not just with regulatory peers, but also industry fora and global association groups like GBBC-GDF to leverage insights, contribute learnings, and build shared subject matter expertise.
2. Cornerstone principles of the traditional economy (such as financial market assurance and security including anti-money laundering (AML)/counter financing of terrorism (CFT), information security, and data privacy etc.) would be adopted, and applied without compromise to ensure that Financial Action Task Force (FATF) compliance pre-requisites are not breached across legacy traditional finance (TradFi) or new-age centralized

finance (CeFi) and decentralized finance (DeFi) ecosystems.

3. Beyond the non-negotiable base, regulating the virtual assets industry that is in such a state of nascency and dynamic evolution demands an innovative approach that remains agile and progressive. VARA's Minimum Viable Programme (MVP) epitomizes this philosophy - allowing firms to operate at full-scale, and test their project scalability by offering their products and services to institutional finance, funds, and qualified retail investors under strict conditions.

VARA believes in the need for this programme to balance risk mitigation for market protection with prudent innovation for class-agnostic economic freedom.

1. We hope to encourage other regulators to leverage our MVP as a learning symposium to observe market behaviours, evaluate the threshold for acceptable risk tolerance, and be able to contribute to the joint creation of new global interoperability standards for responsible participation with VARA. This being said, regulators are required to steer the way, rather than continually

needing to play catch up even as the industry continues to innovate with new products and technologies.

2. VARA's priority commitment is the protection of consumer and investor interests, followed by consequential financial market stability, cross-pollination of opportunities, and socio-economic sustainability of domestic and international markets.
3. These goalposts drive our activity-based approach to regulation - that steers clear from the product and technology driven frameworks that most likely stifle the pace of innovation by effectively barring any specific thing that's not explicitly been 'approved' to be.
4. As such, VARA governs the underlying activity and regulates the sector based on fair conduct, uncompromised ethics, and equitable market principles. New and legacy firms that seek to service this sector will be bound by rules depending on the type of service they offer.

These regulations are a framework of fundamentals that will continue to apply even as products and technologies continue

to evolve. Such flexibility is crucial for those hoping to harness the full potential of virtual assets, without compromising protection of the economically vulnerable and financially vested segments of society.

In regulating a unique industry for which we have developed a unique framework, the basic premise is that virtual assets go beyond being one part of a traditional economy - they are in essence the trigger that can accelerate the scaling of an entirely new economic order that opens access to the under/ unbanked, and allows most sectors of a traditional economy an additional channel to tap into a previously unaddressed segment.

We believe that to regulate companies effectively you need to operate in the environment they are familiar with. In May, VARA became the first regulatory authority to enter the metaverse, establishing our own headquarters in the virtual world of "The Sandbox."

This move ensures that we will always be accessible to those we are regulating, while also encouraging collaborative engagement between more stakeholders. Our entry into the metaverse is also driven by the recognition that the physical world does not offer the same

seamless interoperability standards as the digital world – and it is a call on us as global regulators to put our thinking hats on to create a practical ‘portability’ framework for a borderless industry, where enforceability and safety are at the core of our joint mission.

With a 90% expatriate population, the UAE naturally has a global perspective. VARA’s mission is to ensure that global financial hubs can adopt our framework and as such Dubai can serve as the sandbox for the world – the environment where other jurisdictions can see new regulations adopted, adjusted, and tested. This fosters deeper global ‘ownership’ of a shared mission, accepted regulatory framework promises to be transformative for the virtual assets space. The market volatility we have seen this year is a consequence of minimal guardrails and safeguards.

Today, as we stand at the crux of a prolonged global recession with deep inflationary pressures, safe channels to put economic control back in the hands of the public would be a desirable end-state for most nations. Sound regulation would attract greater numbers of retail consumers and institutional investors, spanning both the Generation Z profile and the senior pensioner segment, broadening the spectrum

of economically active society. Scale by default makes the sector more resilient and reduces volatility. VARA trusts in the potential of the virtual asset sector with the safety net of a comprehensive regulatory framework to serve as one enabling lever to accomplish this goal post. ■



VOICE OF THE COMMUNITY



The Importance of Continuous Education on Best Market Practices

As the leading global trade association that represents the interests of professionals working in wholesale financial markets, ACI Financial Markets Association (ACI FMA) has a long history, tradition, knowledge, and competence in the promotion and development of codes of conduct and good practices that assist the enhancement of fair, honest, and appropriately transparent financial markets where all participants can trade with confidence and with integrity.

At ACI FMA, we believe that the financial markets community needs a drastic change of culture so that we can avoid the repetition of unfortunate past events that damaged the reputation of our industry and the efficiency of these markets. For us, it is important that such change is supported by codes of conduct and good market practices, built by the industry with an aim to serve the industry.

Given that our three core values are ethical conduct, education, and membership, it is perfectly natural that, as a non-profit organization, ACI FMA's projects are strongly geared to the development of educational tools that allow all market participants to train and certify themselves on a continuous basis, to recognized industry guidelines of good market practices.

In our view, the GBBC Digital Finance Code of Conduct falls into that category, as its ten parts are widely recognized as standards and voluntary principles of good personal and professional behaviour for all market participants in digital finance.

Therefore, ACI FMA and GBBC Digital Finance have partnered to integrate the full content of the GBBC Digital Finance Code of Conduct into the ELAC Portal, for E-Learning, Attestation and Certification on industry codes. This is a tool built and designed by ACI FMA to help entities and individuals understand and attest to their guidelines on an ongoing basis, so that they can show sustained and constant proof of adherence to good market practices. The ten parts of the Code were uploaded into ELAC in December 2022, and they are now available for all interested ELAC users.

To support that release, ACI FMA and GBBC Digital Finance have spent most of 2022 producing current, relevant, and regular content that aims to test the knowledge of the ELAC users, both to the theoretical part of the GBBC Digital Finance Code of Conduct (terminology, glossary, definitions, etc)



Kim Winding Larsen
President
ACI FMA



Rui Correia
Executive Director of Education
ACI FMA

and also to the practical implementation of their guidelines through “real life” scenarios built with fictional entities and characters demonstrating a diverse number of roles for market participants in all sectors of the digital finance industry.

We believe that the addition of the GBBC Digital Finance Code of Conduct will be an important complement to the current content already included in the ELAC Portal, such as the FX Global Code, the Global Precious Metals Code, and the UK Money Markets Code, amongst others.

The importance of continuous education has increased in recent years, and we believe that it reinforces the learning, comprehension, and implementation of good market practices, as they are paramount to the improvement of ethical behaviour and market integrity of all individual market participants. The integration of the GBBC Digital Finance Code of Conduct into the ELAC Portal allows those participants to have one single tool that can help in the achievement of those

Crypto Will Eat Financial Services



Richard Crook
COO
BCB Group

The convergence of crypto with financial services

Now that I'm at [BCB Group](#), a leading provider of business accounts and trading services for the digital asset economy, I find myself with one foot in financial services and the other in crypto – between the so-called 'TradFi' and 'DeFi'. Today, these two might seem like strange bedfellows but over time, I believe they will inevitably and irreversibly converge.

The Securities and Exchange Commission's (SEC) view has been clear and consistent that traditional finance (TradFi) and decentralized finance (DeFi) will not be regulated by different rule books. We saw at the outbreak of the war in Ukraine the enforcement of anti-money laundering (AML) and counter financing of terrorism (CFT) obligations equally on TradFi and DeFi firms. We wait to see what changes are caused by [Ripple vs SEC legal case](#) and draft regulation currently in front of the US lawmakers.

I am fond of quoting the last line from *Animal Farm* by George Orwell. *"The creatures outside looked from pig to man, and from man to pig,*

and from pig to man again; but already it was impossible to say which was which." I am not overly concerned about who you see as the pigs in this fable but that you might understand that in the future it will be impossible to say which is which between TradFi and DeFi.

The [spectacular collapse of FTX](#) has surely accelerated the adoption of financial regulation over the crypto domain. FTX could be seen as crypto's Napster and its demise may herald the emergence of crypto's Spotify. A transformative upstart providing financial services that survives the crypto winter and embraces both crypto and regulation.

Crypto is a format not an asset class

The Financial Times recently added [the price of Bitcoin and Ethereum to their front page](#) as a new asset class. That this bastion of TradFi has recognized crypto as a peer asset class alongside equities, fixed income, and commodities should be received with celebration. I believe this misses the key innovation of crypto that it is more than another asset class. Crypto is a new format for dematerializing financial assets as tokens.

Bitcoin as a private currency was the first digital asset to hold value under market conditions and over the past decade has proven the underlying distributed ledger or blockchain technology. This has led to many other financial assets being dematerialized as crypto tokens. We have seen fiat currencies dematerialized as USDT and USDC tokens by crypto firms [Tether](#) and [Circle](#) respectively. Other DeFi firms were not far behind with tokenized debt ([AAVE](#)), equity ([Tokeny](#)) and commodities ([Paxos](#)). We have also seen TradFi institutions joining in, [Santander](#) and [WisdomTree](#) issuing tokenized bonds and funds respectively. Even the central banks are experimenting with central bank digital currencies (CBDC) to tokenize their balance sheets ([SNB](#)). At the last peak in Q4 of 2021, there was \$3 trillion in tokens.

Tokenization has allowed for atomic settlement between different financial assets, leading us to unleash a new breed of digital exchange ([Archax](#)), decentralized exchanges ([Uniswap](#)) and other decentralized financial services operated as smart contracts across multiple asset classes. These new services are able to

offer issuance, listing, post-trade settlement and asset servicing for a fraction of the normal cost with greater transparency. The three decade-long journey to dematerialize the public securities market into centralized databases nears completion but the majority of the \$7 trillion private securities market remains opaque, inefficient, and illiquid. The promise of transparency, efficiency, and the most important of them all, liquidity is the prize at the end of the tokenization rainbow.

I see what you see

The buy side has not remained unscathed by this convergence. Retail investors have long understood that they are financially excluded from investing in anything but public securities. They are aware that the growth potential is in private securities. These astute investors are disintermediating the TradFi asset managers to hold dematerialized financial assets as tokens either directly themselves or through new crypto asset managers ([Crypto.com](https://crypto.com)). This has led us back to the age-old challenge of protecting client funds and investors by ensuring crypto firms who are providing services or products are authorized by their respective regulator. The difficult balance between investor safety and access will continue.

As this disruptive innovation sweeps through financial services providing more transparency, efficiency, and liquidity, it is not clear how the balance will be struck between investor access and safety, financial stability, and innovation. What is clear to me is that as software has eaten the world, crypto is eating financial services. ■

Money Crypto Versus Tech Crypto:

How the two faces of the ecosystem impact the regulatory discussion



Bill Hughes

Senior Counsel & Director of
Global Regulatory Matters
ConsenSys

As legislators and regulators around the world are crafting the rules that will apply to digital assets, it is crucial that policymakers understand that there are really two crypto ecosystems at play. They present different regulatory policy issues. Conflating the two risks stifling growth and innovation, but those jurisdictions that properly understand the difference and regulate intelligently have an opportunity to lead in this digital revolution.

Two sides to the crypto ecosystem

One side of crypto is predominantly about investment. Call it “money crypto.” In essence, it is about buying, holding, lending, and trading tokens as investable assets. Money crypto wants big institutions and retirement funds to invest and a spot exchange-traded product that every retail investor buys. When money crypto says “it’s still early,” this means that most people haven’t bought yet. This side rightfully has the attention of regulators after the collapse of Three Arrows Capital, Celsius, Voyager, and most notoriously FTX.

The other side is about building peer-to-peer computer networks where participants transact by using globally accessible software. Call it “tech crypto.” Tech crypto wants these new computer ecosystems to actually work and provide utility for their users. When tech crypto says “it’s still early,” it means that a lot of the key tech that will define the long term has yet to be built out. Generally, this side is poorly understood by policymakers and regulators, but they need to learn fast.

Centralized finance (CeFi) is the beating heart of money crypto. Intermediaries define the investment landscape and are the driving force. In tech crypto, by contrast, the defining feature is software serving as a transactional counterparty or intermediary. It is much more decentralized finance (DeFi) than CeFi.

Money crypto and tech crypto present different risks that public policy might address. In money crypto, the risks look more or less as they do in traditional finance (TradFi). Tech crypto risk encompasses some of these categories but includes entirely different ones, too: hazardous

self-custody, vulnerable smart contracts, good and bad actors having equal access and public, pseudonymous and irreversible transactions. DeFi opens up a whole different problem set with which public policy is unfamiliar.

FTX exposes risks in money crypto

Recognizing these differences in risk and potential policy solutions is particularly important in the wake of the FTX collapse. Regulators are feeling tremendous pressure to respond in a way that protects consumers. They should pay close attention to how and why FTX failed, because the circumstances that led to the FTX collapse are not unique to crypto. They are the well recognized symptoms of centralization and intermediated finance, which manifest even in the heavily regulated space of TradFi, as MF Global, Bernie Madoff, and countless other scandals have taught us.

Money crypto leading the regulatory debate

Because money crypto has been driving the regulatory discussion, regulators world-over have generally over-emphasized the investment aspect of crypto. The good coming from money crypto

taking the lead is that money crypto risks are front and center when it comes to prospective regulation. The bad is that policymakers too easily make the mistake that policy solutions for money crypto should be applied in equal measure to tech crypto, despite the different risk profile.

Tech crypto has not been as prominent a voice, in part because it does not have existential regulatory questions that it must call to move forward. As a result, policymakers are generally much less informed about tech crypto, or fail to recognize it as being at all distinct. For example, while regulators have heard of Ethereum and the meteoric price rise of ETH tokens, few understand that Ethereum is a computing platform. Almost no one understands the protocols being built on it.

The regulatory conversation should acknowledge both sides

The balance in the conversation needs to shift to accommodate the reality that money crypto and tech crypto present different baskets of public policy challenges. In order to have a smarter discussion and reach better solutions, regulators around the world should engage with the tech crypto ecosystem to better understand

the challenges and, importantly, to start thinking about solutions that leverage not only public policy but also all of the potential the tech itself holds.

A coherent approach would mean addressing money crypto regulation first and then getting to tech crypto later. This is what we generally see happening in certain jurisdictions like the European Union (EU), where the Markets in Crypto Assets regulation (MiCA) covers CeFi and MiCA II, a follow on effort, will tackle DeFi more purposefully. This tiered approach makes sense because money crypto is much more readily regulated. While we are doing that, we can more closely study, evolve our views, and hopefully reach greater consensus about risks and mitigation strategies relating to the global, permissionless peer-to-peer crypto space. ■

As Seen Through the Data:

The Collapse of FTX and What it Means for the Industry



Alissa Ostrove
Chief of Staff
CryptoCompare

On Wednesday 2 November 2022, concerns surrounding the insolvency of FTX started circulating, when the balance sheet of Alameda Research, a hedge fund closely affiliated with FTX, and also founded by FTX CEO, Sam Bankman-Fried, was leaked. A surge in user withdrawals followed, resulting in a bank-run and the eventual insolvency of the exchange. Using CryptoCompare data to tell the story of what exactly unfolded, we briefly touch on the events that led to the exchange's insolvency, and where the industry stands today in wake of its collapse.

On November 2nd, a Coindesk article revealed that Bankman-Fried's trading firm Alameda Research held \$3.66 billion of unlocked FTX Token (FTT) as of Q2 2022, making it the largest asset on its balance sheet at the time. Moreover, the fund also held \$2.16 billion of FTT collateral as assets and \$292 million of locked FTT in liabilities. This was concerning as a substantial part of the multibillion-dollar hedge fund's balance sheet was tied to the native token of its sister company, which had little to no utility or demand. Thus, a significant decline in the price of FTT would have dire consequences for Alameda Research and Bankman-Fried's crypto empire.

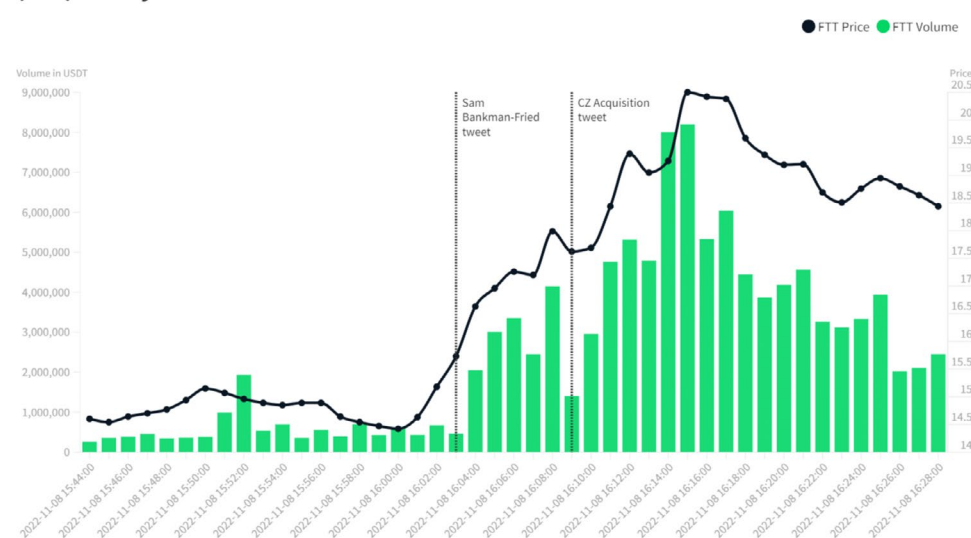
Following the leak, Changpeng Zhao, the CEO of Binance, disclosed Binance's intention to liquidate its FTT position - worth around \$580 million at the time - that was allocated to them as FTX equity last year. This added fuel to the fire and increased concerns over the potential insolvency of FTX, something which was still considered improbable at the time.

The repercussions of the collapse of LUNA/Terra and the meltdown of multiple crypto lending

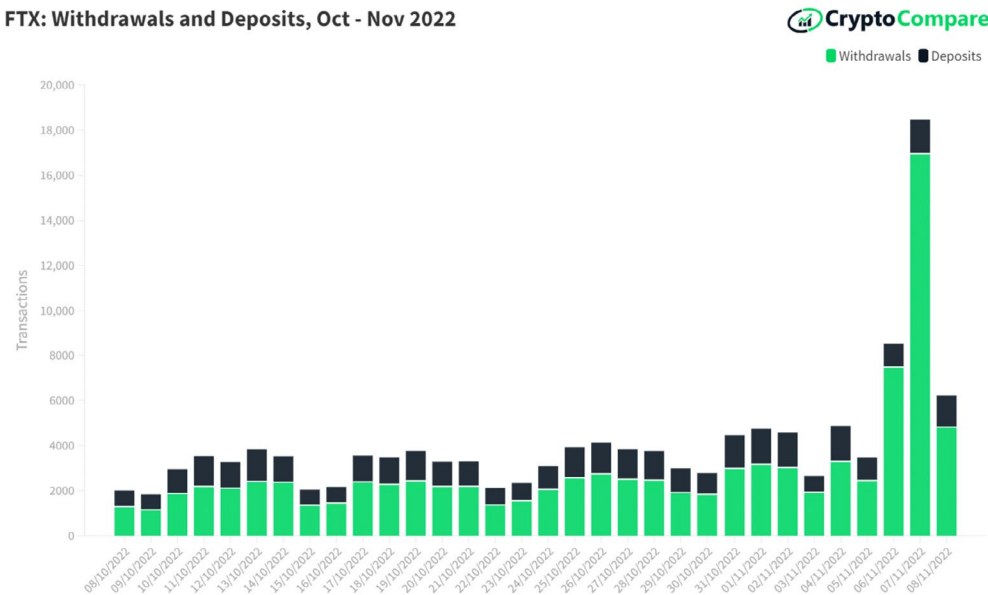
products was still being felt in the sector, and the potential insolvency of one of the largest crypto exchanges fuelled significant market panic. As a result, the stablecoin reserves on FTX declined 59.3% to \$121 million following Zhao's announcement on the 6th of November.

FTX recorded the largest number of withdrawal transactions in its history on November 7, suggesting that users were concerned about the

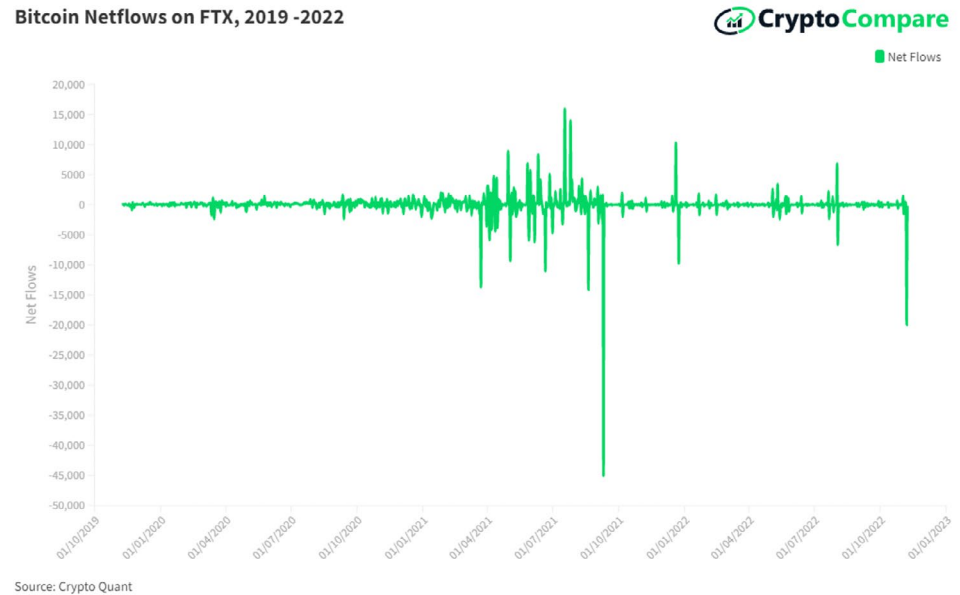
FTT Price After Binance announced The Letter of Intent (LOI) to Buy FTX



FTX: Withdrawals and Deposits, Oct - Nov 2022



Bitcoin Netflows on FTX, 2019 -2022



situation and were looking to migrate to other venues.

A combination of the above factors resulted in an inevitable liquidity crisis for the exchange, as it attempted to fulfill the sudden spike in withdrawal demands from users. On-chain data suggests that withdrawals were halted with zero announcements or communication from either FTX or Bankman-Fried.

Exceeding all expectations, Bankman-Fried announced the acquisition agreement of FTX by Binance. While this initially appeared to alleviate

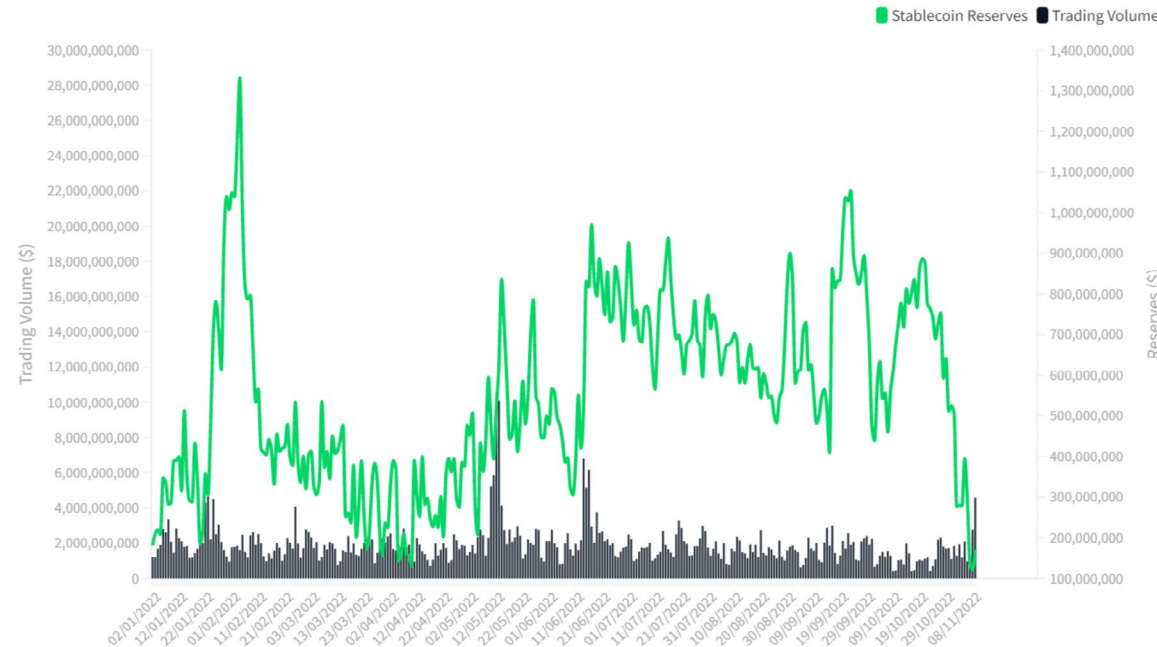
concerns of further contagion in the industry, it was, unfortunately, short lived. Days later, Binance announced its decision to withdraw from the acquisition, stating “our hope was to be able to support FTX’s customers to provide liquidity, but the issues are beyond our control or ability to help.” FTX and FTX US have since declared bankruptcy, with former Bankman-Fried recently pleading “not guilty” to all criminal charges in the New York federal court.

So, what does it mean for the crypto industry?

Despite clear evidence that this was a case of fraudulent business practices and opaque

FTX: Stablecoin Reserves and Trading Volume, 2022

CryptoCompare



Source: CryptoCompare, CryptoQuant

governance structures, there has been overwhelming media and public backlash suggesting regulators should come down heavily on the industry.

FTX's decline was unprecedented and will continue to have a ripple effect on market participants. In light of the event, it has become clear that only a handful of high-level executives at FTX were aware of the underlying structural deficiencies within the exchange, but these events have proven that the accurate assessment of centralized exchange risk is now more relevant than ever.

We have already seen this come to light via the call to action for exchanges to share proof of reserve audits with users, alongside other transparency measures. Exchanges that do not follow this standard will likely lose market share to competitors with more transparent business practices.

CryptoCompare holds its belief that digital assets and blockchain technology will continue to revolutionize the financial services industry in the long term. We will continue working towards making that goal a reality via our industry-leading methodologies, aggregate pricing, benchmarking, research and overarching digital

asset data offering. You can subscribe to our weekly research or read previous reports at data.cryptocompare.com/research. ■

Establishing a Global Regulatory Framework for Crypto



Roeland Vaderstappen
VP of Policy of EMEA
Crypto.com

2022 was a challenging year for the crypto industry. The fallout of various bankrupt entities such as FTX and Celsius, and the collapse of certain decentralized products, such as UST, has undermined the industry's and broader crypto community's reputation. The failures of last year were predominantly confined to individual human misconduct, poor risk management and the unsustainable business models on the part of few centralized players, but the technologies underpinning crypto remain as relevant as ever.

Despite the hard hits, it is important not to lose sight of the positive developments of the past year, notably the successful transition of Ethereum to a proof-of-stake consensus mechanism, resulting in dramatically less energy use and setting the stage for increased scalability and other improvements; growing consumer use of crypto assets globally; continued institutional interest in and adoption of crypto products; and expanded constructive dialogue around the world over regulatory clarity and right-sizing of rules for centralised crypto market participants.

More importantly, we should maintain our focus on the ongoing current and potential application of crypto and blockchain technologies to innovate and grow our economies in financial services and the broader digital economy, which are as real as ever. For example, decentralized cloud storage networks are advancing along with decentralized identity credentials; commercial and retail property has transferred hands by means of non-fungible tokens (NFT); and remittances are being made faster and cheaper. Given these advances, those building the crypto industry will now focus around the most promising projects across multiple industries.

For the industry to build and innovate, it must also build back trust. It is incumbent on all players in the ecosystem to do so. Advancing effective regulation in 2023 will be an important component of rebuilding trust. Currently, the regulation of issuers of stablecoins is being prioritised in jurisdictions that have a major focus on crypto. This focus is complemented by debate on the regulation of centralized exchanges and custodians to support ongoing responsible innovation.

Minimum global standards

The main tenets for a harmonized global regulatory framework and licensing regime for centralized crypto trading platforms and custodians are:

- **Effective KYC and AML/CFT policies:** virtual asset service providers (VASP) should implement robust know-your-customer (KYC), anti-money laundering (AML) and counter-terrorist financing (CFT) policies and procedures, while being encouraged to use next generation compliance solutions, such as best-in-class digital onboarding, identity and verification solutions as well as use of blockchain analytical tools for ex-post monitoring of transactions. As important, policy-makers should promote a consistent and global implementation of the Financial Action Task Force (FATF) so-called Travel Rule to avoid potential arbitrage as crypto markets are inherently global.
- **Legal segregation of customer assets:** Legal segregation of customer assets and a VASP's own assets should become the norm (where

not already required) both to minimise the risk of misuse and to protect customers in case where a VASP becomes insolvent.

- **Minimum standards for safeguarding clients' assets:** VASPs that hold clients' crypto assets or have the means to access clients' crypto assets should make adequate arrangements to safeguard the private keys of clients.

Adequate safeguards could be achieved in partnership with specialized custody service providers that meet a global standard or by crypto trading platforms themselves if they exhibit the required mix of technical, data security, and internal controls.

- **Market integrity rules:** Integrity of cryptoasset markets is key for institutional adoption and retail protection. Transparent trading and reporting practices as well as standards for monitoring and surveillance are key to prevent and detect manipulation and fraud. Similarly, token listing standards should protect customers against scams like “pump and dumps” and “rug pulls” as well as review the basic legitimacy and integrity of new token projects and their developer teams.

- **Security:** VASPs should establish ICT business continuity and disaster recovery plans that ensure that data and the maintenance of crypto asset services are preserved, recovered and resumed in a timely fashion in the case of an interruption to their ICT systems and procedures. To this end, VASPs should undertake third party audits of their cyber risk practices.

A baseline of global regulatory standards can mitigate regulatory arbitrage opportunities and ensure that customers are not driven to unregulated centralised platforms. The use of technology-based detection and investigation techniques and increased cross-border cooperation between authorities will help supervisors effectively to curb illegal online conduct.

Discussions on regulation of decentralized finance (DeFi) will follow a separate and slower track, not at least as DeFi remains relatively nascent, has unique characteristics, presents different benefits and risks than centralized services, and a variety of use-cases and security mechanisms that are ever-evolving. It is clear

that regulation of DeFi requires a novel approach to account for these unique characteristics given that the traditional approach to regulating centralized finance is not applicable.

Looking ahead

“Verification” and “transparency” will be the watch words of the crypto industry in 2023. Sound regulation will support these dual endeavours, but it will take time to evolve this and that is why responsible crypto actors are working now to improve transparency and industry best practices in advance of future regulation. ■

Programmable Policies:

Hybrid Digital Asset Custody



Rashid Hoosenally
Co-Founder
Guardian

The events of 2022 have prompted much soul searching by digital asset investors globally, who feel caught between the rock of self-custody and the hard place of having to entirely trust your money to a third party.

In the early days, blockchain pioneers promised a future for digital asset investors where the only person we needed to trust was ourselves. We could dispose of all those inefficient middlemen and have 24/7, instant, continuous settlement with no post-trade reconciliation. We had the revolution of self-custody: I could safely keep – and directly trade – all my crypto and digital tokens myself.

But as markets and investments grew in size and complexity, the downsides became clear: self-sovereignty, attractive in principle, comes handcuffed to its evil twin – total self-reliance. Yes, you only need to trust yourself. The problem is, we are all fallible.

Between this and the clunky user-experience of most self-custody solutions, the attractiveness of having a third party take care of your assets for

you and deliver a familiar Web2-style username and password experience became obvious.

Of course, as FTX users have learned, depositing with a third party has equally huge downsides: once your keys/assets are with a third party, the key keeper can move them, use them, lend them – and steal them. This is especially easy where legal recourse to get your assets back are minimal, even non-existent.

But what if you can secure your assets so that you both always have total control over them but you also can always retrieve your key even if you lose it? What if we can set and securely control the rules about how shared assets are used?

The world of hybrid custody

Hybrid custody is a form of verifiable, “joint custody” that sits between self- and third-party. Though you might “share” custody of assets with others, the user always sets the rules on how they are used and can always see and independently verify that these are being enforced. What’s more, it’s not just the

digital assets that are secure but the rules and policies governing them, which are transparent, not under any one party’s control, and can’t be manipulated in anyone’s favor.

The hybrid custody approach can deliver far more than a retrievable seed phrase and therefore offers an anchor for independence. It allows you to set the rules governing your assets and always verify that they are being followed. No one can change the rules without your approval.

Consider the example of an exchange that needs customers to leave balances on it for trading to be sure that the customer can satisfy their settlement or margin obligations. With hybrid custody, the customer and exchange can operate to a set of clear and agreed rules (for example, do not transfer the balance somewhere else) and always know they are enforced on-chain – i.e. transparently and externally verifiable. This is in addition to any legal agreement not to misuse the assets, as we know that such agreements may well be ignored.

Such transparent rules are not just important to protect against external risks. As we have seen in the case of FTX, it is critical in defense against insider risk, which many in the community have long argued is a much bigger risk factor than external hacking, and yet has received far less attention.

Conditional custody and programmable finance

The natural extension of hybrid custody is conditional custody. This not only uses immutable, blockchain-published policies to allow providers, venues, and platforms to ‘share’ custody with owners, who retain full control, but also allows them to set all sorts of conditions about how they operate in different circumstances — hence the term “programmable” finance.

Users can, for instance, write their own ‘self-protection’ rules into their wallet to protect themselves from errors - e.g. “do not let me send WETH to an ETH address” or “don’t move more than \$5k/day without extra approvals”. Such rules can protect against malware, phishing, and social engineering attacks, as well as simple errors.

And, going back to seed phrases, as well as decentralized phrase backup, users can

incorporate rules about inheritance to ensure that loved ones will get all their digital assets in line with their wishes.

These features are crucial across finance and Web3: whether non-fungible token (NFT) gaming assets, derivatives trading, or decentralized autonomous organization (DAO) governance — if you can think of an ‘if, then’ statement, you can implement any combination of them through hybrid custody.

How does hybrid custody work?

Our vision for hybrid custody draws on our learning from decentralized finance (DeFi) which has demonstrated quite clearly trustless enforcement of pre-defined, pre-published rules — rules that are consensus-based and also arranged so they operate in sequence so that all the steps defined are followed.

How do we know the rules themselves aren’t vulnerable to manipulation? This brings me to a central and crucial feature of any robust hybrid custody system: external, immutable, and transparent rules.

The foundation stone of confidence in a custody system are the rules and rights that are agreed

by all, transparent to all, and which cannot be broken. But such rules are useless if they can be subverted, manipulated, or hidden. The more you can verify policy, the less you risk.

However, policy underpinned by centralized code that sits on top of keys is not (or should not be) good enough. Centralized code is opaque, insecure, internalized — and therefore vulnerable. Manipulate the policy (e.g. change the policy to add a new withdrawal address and remove size limits) and you have a back door to allow a 100% drain of assets. Such policies are easy for anyone from a dishonest CEO to an IT contractor to manipulate.

That is why hybrid custody is built on trustless, neutral, enforcement of agreed rules via a decentralized network, and cryptographically tied to keys so that they cannot be used without it.

Putting policy on-chain, fully decentralized via smart contracts means it is transparent, immutable, and externalized.

On-chain means every policy and rule can be proven to and verified by any and all stakeholders, customers, creditors, auditors, and regulators. These are the principles we need to

uphold in any good custody system: verification, trust, and transparency.

Transformational implications

Hybrid custody will end the self vs third party custody dilemma, offer sovereign owner-led control of crypto assets, as well ensure audit and regulatory compliance, and adherence to governance frameworks.

Unprecedented transparency will also provide a “golden record” of multi-party transactional data. This data can preserve privacy but also permission specific viewing rights, starting with the counterparties, and then the auditors and regulators. This will significantly streamline both audit and regulatory discovery. It can provide bulletproof Proof-of-Reserve and Proof-of-Liability data in real-time, using zero knowledge proof (ZKP) protocols for privacy preservation and aggregation.

By providing institutions with a cryptographic means of enforcing their rights on assets as outlined in agreements between them, their partners, and their customers, we can ensure that all transactions are in compliance with all internal policies, procedures, and role-based approvals.

By protecting users, enforcing rights, allowing for secure and dynamic exchange of value, hybrid custody is the best-of-both worlds paradigm that can solve the problems of the past and open the door to an exciting Web3 future. ■

The Annual Summit on Crypto and Digital Assets for Financial Institutions

On 30 November 2022, Hogan Lovells and GDF convened their annual crypto and digital assets summit, involving a series of panels in which industry leaders exchanged insights on the regulatory landscape and emerging risks and opportunities related to digital assets and the financial services sector.

Panelists that contributed to the conversation included representatives from policymakers (including the US Federal Commodity Futures Trading Commission), leading global banks (including Barclays, Standard Chartered, and Goldman Sachs), as well as a variety of players within the digital asset space (including Ownera, Elliptic, Chainalysis, and TRM Labs). A diverse range of perspectives and views were shared during the event, but a number of common themes permeated the discussions.

Difficulties in light of recent events in the market

The impact of recent and high-profile corporate insolvencies within the digital assets industry was discussed at various points during the day. There was a general consensus that, despite these events leading to a significant setback in public

sentiment towards cryptoassets, the events do not necessarily reflect a failure in digital asset regulation, or hamper the potential for digital assets to positively transform the financial services sector.

Some panelists contemplated how the current “crypto winter” may in fact advance the digital assets agenda by focusing minds on the core capabilities of the technology and reducing focus on the hype around cryptocurrencies.

Moreover, in the aftermath of such events there is likely to be a push to implement new digital asset regulations — some of the issues that are likely to be addressed include custody, segregation of client assets, conflicts of interest regarding activities undertaken on behalf of firms versus activities undertaken on behalf of their clients, and insolvency situations.

It was noted that existing regulatory efforts, including the Markets in Crypto Assets Regulation (MiCA) in the European Union (EU), have already sought to tackle a number of these issues and that any additional regulations



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elsewhere in the world should be proportionate and considered, rather than swift and reactionary.

Challenges and opportunities

Despite the macroeconomic and political headwinds of the past year, it was broadly agreed by the panelists that the adoption of cryptoassets and tokenization will continue to grow across jurisdictions around the world. Panelists discussed the efficiencies that can be gained from the use of distributed ledger technology (DLT) such as in the context of securities tokenization. Additionally, the potential implications of DLT (particularly in terms of traceability and transparency) in the areas of anti-money laundering, civil litigation, and

criminal investigations, as well as environmental and social governance, were touched upon.

Regarding decentralized finance (DeFi), it was noted that there are very few truly decentralized financial products and services currently offered on the market. As DeFi solutions continue to proliferate, however, panelists noted that the regulatory challenges related to liability and accountability of DeFi entities will need to be addressed.

The future of regulation

There was widespread acknowledgement of the significance of the recent adoption of MiCA by the EU, the first comprehensive digital assets regulatory regime to apply across all 27 Member States. In general, the passing of MiCA was applauded throughout the conference as a positive development, and there was recognition for the potential for MiCA to serve as a reference point for the regulation of digital assets globally. There is a danger of MiCA becoming quickly outdated, however, in light of numerous industry developments and the manifestation of new issues since the original draft of MiCA was first conceived in 2020.

The importance of distinguishing between “retail” and “wholesale” services in the context



Sharon Lewis, Partner at Hogan Lovells, leads the discussion on tokenization at the Summit

of creating regulatory regimes was raised. It was further suggested that while the former category should be more stringently regulated to protect retail investors, authorities may be able to take a more flexible approach to regulating wholesale activities provided that the relevant firms have appropriate risk management controls in place. Panelists stressed the significance of DLT being a “borderless” technology, noting the difficulties of applying legislation under different jurisdictions in the absence of a harmonized global approach and potential litigation risks. Additionally, it was noted that much of existing financial services legislation in the developed world was introduced in light of the financial crisis of 2008, and may therefore be ineffective in dealing with

current problems and challenges within the digital asset space.

While increased regulation may not be favored by all, industry players across the globe generally welcome regulatory clarity, the development of a common taxonomy, and coordination between policymakers of different jurisdictions as well as with market participants. The panelists noted that there remains work to be done on this even after MiCA comes into force. ■



The hybrid event meant Hogan Lovells offices globally were connected for the Summit

The Evolution of the Digital Assets Revolution:

A Look Ahead to 2023



Todd McDonald
Co-Founder & Chief Product Officer
R3

As we look back on yet another year of continued economic instability, it is difficult to ignore the growing influence of distributed ledger technology (DLT) on our lives and in our financial markets.

This influence has not gone unnoticed by governments, with 2022 seeing great strides to regulate DLT use in financial services. This progress is exemplified by the European Union's (EU) Markets in Crypto Asset (MiCA) regulation, which prompted both the US and UK to stake their claims as the natural home for regulated, responsible blockchain companies.

But efforts to normalize the technology have been overshadowed by market shocks in the crypto space, with the implosions of Terra Luna and FTX prompting many to question whether such markets have a future. Despite this sound and fury, the world's leading financial institutions have continued adopting digital assets at pace, with many using 2022 to move trialled DLT solutions into production. Our focus remains on helping those organizations to overhaul

inefficient processes and workflows. And while these changes are often evolutionary rather than revolutionary, they are delivering on the potential of DLT, making businesses more efficient and profitable in the process.

Digital twinning of traditional assets

Almost any financial instrument has the potential to be tokenized using DLT. Done correctly, this can unlock faster, cheaper asset transfers, create new markets in fractionalized securities, and increase liquidity for niche markets. Payments (via digital currencies) and settlement are core to the lifecycle of digital assets. Bridging payments across different networks (on and off ledger) is, therefore, crucial, as clients expect their deployment of DLT to facilitate the movement of assets between DLT platforms.

In response, we are seeing an increased focus on interoperability from all major players, including R3. Such interoperability opens a myriad of options to financial services firms, including the trading of native digital assets with tokenized digital assets across multiple networks, regardless of the protocol used. From

R3's perspective, this interoperability focus represents the next generation of services to be unlocked by DLT – a conversation we are now able to have with our customers due to the significant progress they have made in building or operating their own networks in 2022.

Bringing together the digital ecosystem

Looking ahead, we see opportunities for firms to leverage multiple and complimentary parts of the digital ecosystem - digital assets, interoperable bridges, digital currencies, and the distributed ledger. Firms may focus on one of these initially but will see the benefits of all once their strategy matures alongside the opportunities afforded by true interoperability.

The natural endgame to this transition is a Token-versus-Token (TvT) economy, with assets moving freely between ecosystems, regardless of type, origin or destination. This will be the enterprise version of the “financial legos” seen in DeFi, powering core financial actions like tokenized debt and equity trading, tokenized collateral in repo, and tokenized currency in foreign exchange and cross border transactions.

There are many paths forward for digital assets

The path for digital assets is intertwined with digital currencies (e.g. central bank digital currencies (CBDC), fiat-backed stablecoins) and interoperability. There are countless paths to creating truly useful digital assets, and the enterprise-grade blockchain that they rest on, yet there are also dead ends lurking to trip-up the unwary. Therefore it is no surprise that 2022 also saw several players exit this space in pursuit of shorter-term goals.

In contrast, 2023 will see R3 continue to forge its own path for its customers through the release of Corda 5 and its networks-of-networks features. It's this commitment and consistency that is giving major industry players like DTCC and SDX the confidence to transform their own infrastructure – not only to reduce cost and processing times, but also to ready their business for the proliferation of digital assets that is to come.

DeFi(ning) the market

These initiatives are laying the foundation for leading financial market infrastructures and market participants to embrace decentralized finance concepts whilst maintaining the strong

governance that society requires and expects from these regulated players. The European Securities and Markets Authority (ESMA) DLT Pilot Regime and UK Financial Market Infrastructure (FMI) Sandbox will provide a great opportunity to become active in this space. This gives us plenty of optimism and excitement for 2023 and beyond.

What's next

If, as we have suggested, 2023 marks a pivotal point in the adoption of digital assets, then collaboration will be key to maintaining momentum. Interoperability should be as wide ranging and all-encompassing as the technology allows, but it is the imagination of financial institutions when considering new products that will help to prioritize the development of enterprise DLT platforms.

So, if, as you read this, new ideas come to mind about what might be possible, get in touch; we'd love to explore them together. ■



The Future of Financial Market Infrastructure



David Newns

Head of SIX Digital Exchange

The last five years we have seen a dramatic increase in the adoption of digital assets, the most prominent example being cryptocurrencies. Currently, more than 300 million people around the world use or own cryptocurrencies and take up from institutional investors is rising. According to a recent study by Fidelity Digital Assets, over half (52%) of investors globally have exposure to digital assets, while nine in 10 said they found digital assets to be attractive. Institutional and retail participation in the cryptocurrency market will only accelerate despite the recent market turmoil.

Despite the evolution of its underlying market infrastructure, cryptocurrencies remain a volatile asset and are currently experiencing a downturn. The current 'crypto winter' has been exposing structural problems the industry still needs to address and solve. Problems boil down to lack of institutional grade infrastructure, standard practices, and often a lack of regulatory oversight leading to know-your-customer (KYC) and fraud issues as well as companies going belly-up. Self-governance will likely not be enough to make cryptocurrencies less volatile

and investors more confident. Regulators and high-ranking officials – such as Janet Yellen, US Secretary of the Treasury, and Christine Lagarde, president of the European Central Bank (ECB) – are calling for regulation of cryptocurrencies.

Cryptocurrencies cannot be taken standalone though. They are a part of a much bigger market segment: digital assets. While the rise of the internet, and technology in general, has changed many industries completely, the financial industry has so far only experienced modifications to existing, old structures. Digital assets include a wide range of assets including cryptocurrencies, central bank digital currencies (CBDC), other synthetic CBDCs, and digital securities which are native and tokenized. As an example, private equity has the potential to benefit greatly from tokenization as companies can acquire funding more easily and efficiently, as well as accessing new services in the Web3 economy. With tokenization, investors could also gain easier access to other non-traditional industries such as vintage cars, wine, art, and real estate.

How can we accelerate the spread and adoption of digital assets? We at SDX believe we need a new financial ecosystem. The powerful roots of current financial market infrastructures (FMI), the systemically important exchanges, clearing houses, central securities depositories (CSD), and payment systems that support the world's monetary and financial markets, were embedded back in the 1960s and '70s. FMIs were built, for very understandable reasons including different regulatory regimes, in a manner that resulted in several silos to develop. The new 21st century digital market infrastructure (DMI) is designed to break down those silos and create value at the intersection of previously walled gardens. At its core, DMI is all about breaking down silos and decentralizing workflows.

In this spirit, we have recently seen a dual-listed, natively digital bond being issued on our platform, in close cooperation with SIX Swiss Exchange and SIX SIS. This new structure simplifies the digital bond issuance process on SDX whilst simultaneously maximising market reach through the connectivity between SDX's

blockchain based platform and SIX's traditional infrastructure. This dual-listed digital bond, in effect, establishes a migration path for the market to move from issuing traditional securities to issuing natively digital securities on a fully regulated blockchain-based financial markets infrastructure.

We now have a materially evolved and richer set of analytical and executional tools to work with than back in the 1970s. Globalization has changed the way financial institutions can service their clients and how they trade assets. Regulatory regimes have significantly evolved and the technology innovations and choices we have are totally different and significantly enhanced compared to those 50 years ago. From the internet and cloud computing to machine learning and artificial intelligence to distributed ledger technology and native digital assets, soon quantum and cognitive computing will be pervasive.

The financial industry is going through a seismic transformation right in front of our eyes. These are incredibly interesting times, and we at SDX are right at the forefront, working alongside many others to shape, not predict, the future. We strongly believe that digital assets, including

cryptocurrencies, are here to stay. As Winston Churchill said 'never let a good crisis go to waste' – let's use this crypto winter as a time to invest in building a future financial system that is more secure, stable, and inclusive than the financial system we currently have. ■

FINANCE AND TALENT



Talent and Governance Update



Abdul Haseeb Basit
CFO & Board Member
GDF

2022 was a major year for the development of industry associations in the blockchain and digital assets sectors as GBBC and GDF merged. Our combined strength across our member firms and internal team sets us up to be successful as the largest global industry group for blockchain and digital assets.

GBBC Switzerland, as a Swiss non-profit became the parent entity for the GBBC group, with the GBBC Digital Finance subsidiary retaining its own board and governance model as a UK company limited by guarantee. The group, led by Sandra Ro, CEO GBBC, benefits from a larger Executive and team. A number of the GBBC and GDF team assumed larger roles across the group.

From a financial perspective, 2022 was a stable year for the combined organization with the merger bringing a greater interest in membership.

Board and Executive Team

In 2022 the GBBC Board continued to be led by David Treat (Accenture), and welcomed

Lawrence Wintermeyer, Chair of the GDF Board, and Donna Parisi from Sherman & Sterling as new board members alongside, Yuval Rooz (Digital Asset), John deVadoss (NGD Enterprise) and Staci Warden (Algorand Foundation).

Through 2022 the GDF Board and Executive continued to be led by Lawrence Wintermeyer, with Simon Taylor, Greg Medcraft and Sandra Ro continuing in their capacity of Non-Executive Directors. During the year we added Dimitrios Psarrakis and Dawn Stump as incoming Non-Executive Directors.

Dimitrios is a financial economist and financial markets innovator working in the interface of economics and regulation with a focus on digital finance, crypto-assets, DeFi and DAOs. He worked for seven years in the European Union (EU), drafting or co-drafting reports and regulations in the field of blockchain technology, capital markets union, the Fintech and Digital Finance Strategy of the EU, the Crowdfunding Regulation, and he was active in shaping the final texts of the Markets in Crypto Assets Regulation

(MiCA), Transfer of Funds Regulation (TFR), and the Distributed Ledger Technology (DLT) Pilot Regime.

Dawn is a regulatory expert, widely respected for her leadership, bipartisanship, and consensus building among senior government officials, senior regulatory ministry officials, corporate, and academic leaders worldwide. Most recently, she served on the Commodity Futures Trading Commission (CFTC). As one of five Commissioners, she helped to shape the



The GDF team together at Hogan Lovells

CFTC’s regulatory priorities. During her early career in public service, Dawn served as senior professional staff for the U.S. Senate Committee on Agriculture, Nutrition & Forestry where she was actively involved in negotiating reform of derivatives market regulations contained in the Dodd-Frank Act.

Jeff Bandman completed his term as Non-Executive Director after 4 years, and we’re delighted that he remains affiliated with the firm as an Ambassador and as Co-Chair of the Regulators’ Only Forum for 2023, supporting fellow Co-Chair Dawn Stump.

Emma Joyce, GDF CEO, and I comprise the Executive Directors on the GDF Board.

Our core team saw the addition of Madeleine Boys as Head of Community upon completion of her studies, joining us full time after a successful internship. In addition, Malcolm Wright joined as Director of Government & Regulatory Affairs – APAC for GDF and Dina Ellis Rochkind joined as US Policy Advisor.

We would like to take this opportunity to thank the members and team who have contributed to the success of GBBC and GDF, and we look forward to continuing our mission in 2023. ■

The 2022 Program was delivered by



Emma Joyce
Chief Executive Officer
& Board Member



Abdul Haseeb Basit
Chief Financial Officer &
Board Member



Lawrence Wintermeyer
Chair of the Board



Sandra Ro
Board Member



Jeff Bandman
Board Member



Simon Taylor
Board Member



Dawn Stump
Board Member



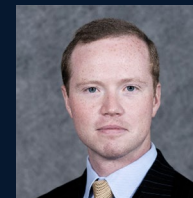
Dimitrios Psarrakis
Board Member



Greg Medcraft
Board Member



Lavan Thasarathakumar
Government &
Regulatory Affairs
Director - EMEA



Andrew Smith
Government &
Regulatory Affairs
Director - Americas



Malcolm Wright
Government &
Regulatory Affairs
Director - APAC



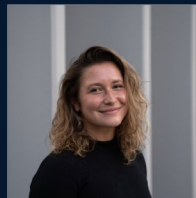
Dina Ellis Rockkind
US Policy Advisor



Anastasia Kinsky
Head of Programmes
& Content



Melissa Corthorn
Head of Events



Madeleine Boys
Head of Community



Tatyana Marsh
Communications Manager



Natalia Neuber
Analyst



Sophia Hassel
Analyst



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