



**GBBC**  
Global Blockchain  
Business Council

INSIGHT REPORT

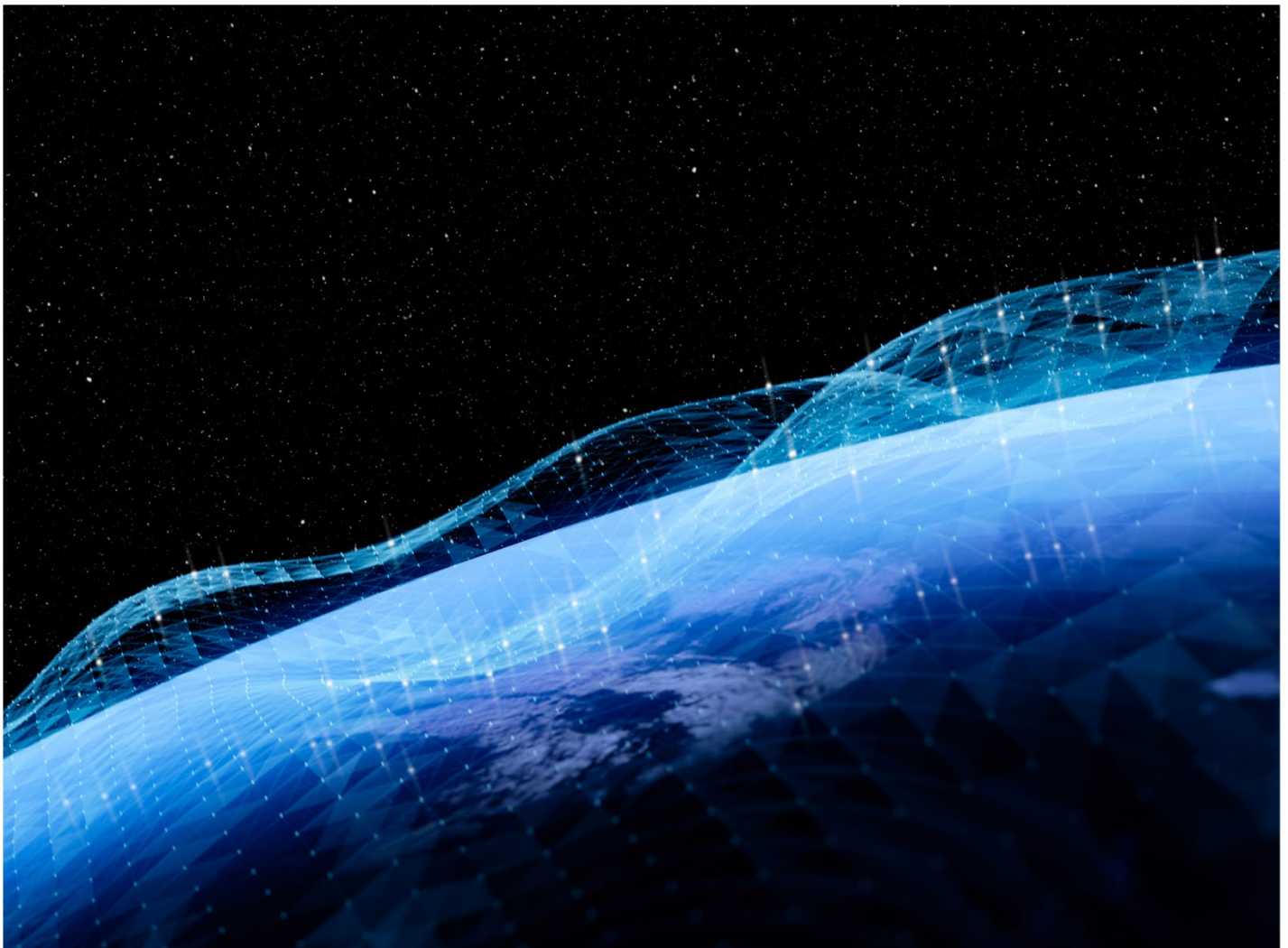
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# **GLOBAL STANDARDS MAPPING INITIATIVE (GSMI) 2.0** STANDALONE REPORT

## **DIGITAL & CRYPTO ASSET REGULATION**

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November 2021



*The GBBC would like to thank our many partners, members, and supporters who worked tirelessly and enthusiastically over the past months to produce this standalone report as a part of GSMI 2021, version 2.0.*

## **Contributors**

<b>Step toe &amp; Johnson</b>	Alan Cohn Jack Ritossa
<b>Global Digital Finance</b>	Lawrence Wintermeyer Anastasia Kinsky
<b>Portland State University</b>	Robert Riley
<b>University of Bahrain</b>	Walaa Basem Al Shehab
<b>Caribbean Blockchain Alliance</b>	E. Stefen Deleveaux
<b>Deutsche Bank</b>	Dr. Matthias Artzt
<b>Evertas</b>	Jared Gdanski
<b>Filecoin Foundation</b>	Marta Belcher Rachel Green Horn
<b>Hut8 Mining</b>	Tanya Woods
<b>Lykke</b>	Richard Olsen Stuart King
<b>Meta (f.k.a. Facebook)</b>	Lee Brenner Tang Wei
<b>MLL Meyerlustenberger Lachenal Froriep</b>	Ronald Kogens
<b>Nautilus Tech</b>	Duke Kim Nicole (Winslow) Jurayon Simon Ospenson
<b>QR Capital</b>	Fernando Carvalho
<b>Stellar Development Foundation</b>	Seth Hertlein

## Introduction & Key Findings

In October 2020, the GSMI 1.0 report took stock of the global regulatory landscape of digital assets and blockchain, observing trends across consumer protection, financial surveillance, taxation, banking, Central Bank Digital Currencies (CBDCs), and bans on crypto transactions amongst others.

Since then, we have seen an extraordinary growth of activity and innovation across the digital asset ecosystem, including in spot and derivatives markets, decentralized finance (DeFi), Non-Fungible Tokens (NFTs), CBDCs, and adoption by financial institutions. This has heightened regulatory and policy attention globally, bringing with it new warnings, statements, proposals, and consultations on crypto-market activity.

Our report looks to assess how these regulatory developments are shaping the current global digital asset landscape across eight categories. This year, we have focused on the G20 jurisdictions, as well as 31 countries with notable approaches.

### *Categories:*

<b>Regulation of digital assets</b>	The regulatory and legislative approaches to digital assets
<b>Regulation of Illicit Activity &amp; The Travel Rule</b>	A look at illicit activity in crypto, and which jurisdictions have implemented the FATF Recommendation 16
<b>Market Surveillance</b>	The laws and guidance in place to ensure market integrity across digital assets
<b>Consumer Protection</b>	Warnings issued to consumers, investors, and businesses concerning digital assets
<b>Innovation: Barriers vs. Encouragement</b>	The barriers to innovation, the regulatory sandboxes in place, and the innovative approaches to regulating digital assets
<b>Adoption: Institutional Participation</b>	Regulations on banks interacting with digital assets and digital asset businesses, as well as pilot projects in the banking sector
<b>Central Bank Digital Currencies (CBDC)</b>	The active retail and wholesale CBDC projects
<b>Taxation</b>	How regulation is being developed through taxation

## Regulation of Digital Assets

Approaches to digital asset regulation are split between those who have brought these assets under existing legislation, some with opt-in regimes, and those who have created new frameworks designed specifically for virtual asset service providers (VASPs). As a result of fragmented and unclear approaches, industry leaders have ranked a lack of regulatory clarity as one of the top challenges that their businesses face. *Table below*

On 24 September 2020, following a comprehensive consultation, the European Commission published its proposed Markets in Crypto Assets Regulation (MiCA).<sup>1</sup> To date, this is the most comprehensive framework for digital assets, proposing a harmonized and mandatory regime across the entire European Economic Area (EEA) that would replace existing national frameworks and allow cryptoasset issuers and VASPs to offer their services across the Single Market.

Opinion on MiCA is split; many industry leaders are calling for clarity on terms and definitions, proportionality in creating a level playing field for cryptoassets, and mitigating implementation challenges through realistic timelines. Meanwhile, the European Parliament is seeking greater control of the markets to address the perceived threat of stablecoins and illicit activity.

Despite concerns from both sides of the debate, MiCA is a solid and comprehensive starting point for an industry that has been calling for regulatory clarity. What remains to be seen is the extent to which MiCA will influence other jurisdictions. As a first mover, there is the likely advantage that it will set the agenda, however, if set incorrectly, it could lead to a fractured approach which will be to the detriment of the sector.

Elsewhere in the G20, an increase in regulatory and policy attention has not necessarily been followed by action. Many public consultations have been issued in 2021, including from the FATF,<sup>2</sup> the UK HM Treasury (HMT),<sup>3</sup> the Bank of International Settlements (BIS),<sup>4</sup> and Dubai Financial Services Authority.<sup>5</sup> A clear focus area for in these consultations has been stablecoins, with special attention on consumer protection and monetary stability. MiCA includes substantial coverage of stablecoins. The UK HMT consultation regarding digital financial market infrastructure similarly focuses on stablecoins.<sup>6</sup> This keen focus is possibly reflected in the acceleration of many CBDC programs globally.

Several jurisdictions have issued blanket bans on cryptocurrency. Qatar has issued a ban on cryptocurrencies,<sup>7</sup> citing price volatility, possibility of financial crimes and lack of central government support. The UK FCA ban on retail access to crypto derivatives became law in January of this year.<sup>8</sup> and there is talk of “tough love” for the crypto sector from the Governor of the Bank of England. On September 24, 2021, China issued a blanket ban on cryptocurrency trading,<sup>9</sup> declaring all forms of digital transactions and financing as illegal activities that are strictly prohibited due to the risks to consumers.

On August 27, Yin Youping, the Deputy Director of the Financial Consumer Rights Protection Bureau of the People’s Bank of China (PBoC), referred to cryptocurrencies as speculative assets and warned people to “protect their pockets”,<sup>10</sup> however it is hypothesized that the aim of the Chinese government extends beyond consumer protection and possibly relates to the roll out of their own CBDC.

In the U.S., the SEC Chairman Gary Gensler has testified multiple times that the cryptocurrency sector needs stronger investor protection,<sup>11</sup> particularly in the instance of platforms that allow investors to borrow against cryptocurrencies. Chairman Gensler has told lawmakers that investor protection rules should apply to crypto exchanges,<sup>12</sup> and said that the SEC will regulate cryptocurrency markets to the maximum extent possible using its existing authority,<sup>13</sup> while asking for more scope and resources for the SEC to oversee the sector.<sup>14</sup>

In November 2021, the President’s Working Group on Financial Markets, joined by the Federal Deposit Insurance Corporation and the Office of the Comptroller of the Currency, released a report on stablecoins.<sup>15</sup> The report highlighted several risks, including loss of value, payment systems risks, risks of scale, and regulatory gaps. The report stated that depending on facts and circumstances, a stablecoin may constitute a security, commodity, and/or derivative, and fall under the jurisdiction of the SEC or CFTC. The Working Group recommended that Congress act quickly to supervise stablecoin arrangements, limit stablecoins issuance to insured depository institutions, and subject custodial wallet providers to federal oversight. Finally, the report suggested that the Financial Stability Oversight Council should consider designating certain stablecoin-related activities as systemically important payment, clearing, and settlement activities.

Additionally, the growth of DeFi caught many policy makers and regulators off guard, with the total value locked (TVL) in the global DeFi ecosystem rising from \$5 billion in August 2020 to \$80 billion in August 2021.<sup>16</sup> In response, IOSCO organized a private call earlier this year with some DeFi market leaders and included other regulators. CFTC Commissioner Dan Berkovitz has indicated that many DeFi apps could be illegal,<sup>17</sup> and SEC Chairman Gensler is concerned about protection for retail customers and has questioned the level of “decentralization” of DeFi, citing concerns about the nature of the financial incentives of some of the networks. Chairman Gensler has kicked off an investigation of the DeFi industry using a software analytics firm to analyze industry transactions.<sup>18</sup> This will remain a top emerging priority for regulators in the following year.

<b>Incorporated into existing legislation</b>	<b>New Framework</b>	<b>Ban</b>	<b>Unclear</b>
Nigeria - in place South Africa - in progress Hong Kong - in place Indonesia - in place Japan - in place Singapore - in place Turkey Australia - in place Switzerland - in place United Kingdom United States of America Argentina	<i>Japan (self-regulation)</i> UAE European Union Gibraltar Caribbean	<i>China</i>	<i>Bahrain</i> <i>India</i> <i>Thailand</i> <i>Saudi</i> <i>South Korea</i> <i>Brazil</i> <i>El Salvador</i>

**Table 1.** Current State of VASP Specific Legislation and Frameworks

## **Regulation of Illicit Activity and the Travel Rule**

The increase of crypto activity has come with an increase of attention on the apparent risks of money laundering and terrorist financing activity across digital asset markets. However, market analysts estimate there was a decrease in illicit activity — from 1.1 percent of total market activity in 2019 to 0.34 per cent in 2020<sup>19</sup> — while market activity tripled in the same period.

Nevertheless, regulators and central banks issued statements warning of the risks of illicit activity. In January 2021, US Secretary of the Treasury Janet Yellen stated that cryptocurrencies were used “mainly for illicit financing.”<sup>20</sup> European Central Bank President Christine Lagarde commented on the need for regulation due to the “totally reprehensible money laundering activity.”<sup>21</sup>

**Travel Rule**

The FATF released its second 12-month review of the Travel Rule in July 2021.<sup>22</sup> For the FATF guidelines to function effectively, there needs to be complete adoption to ensure that there are no regulatory gaps. Though it has been noted that industry has made considerable efforts to develop and implement solutions in preparation for Travel Rule compliance,<sup>23</sup> there are still concerns that only 58 out of 128 reporting jurisdictions have implemented the recommendations into their legislation.<sup>24</sup> A further 26 jurisdictions have reported that they are in the process of implementing the recommendations.

Of the 58 jurisdictions, 52 reported that they have implemented regimes that permit VASPs, while six jurisdictions have prohibited them. 31 jurisdictions have established registration regimes for VASPs, while 17 have established licensing regimes and a further four have implemented regimes with both licensing and registration.<sup>25</sup> The registration requirements for VASPs seems to be a challenge globally, with many regulators approving only a handful of VASPs despite having implemented these regimes.

The FATF monitors countries to ensure they have fully and effectively implemented the recommendations, and to hold countries to account that do not comply. Since 2000, the FATF has maintained a blacklist and a greylist of non-compliant nations that FATF members believe to be uncooperative with other jurisdictions in international efforts against money laundering.<sup>26</sup>

Evidence on the status of Travel Rule implementation for VASPs in the following jurisdictions is based on the FATF’s 4th Round Ratings Document.<sup>27</sup> The FATF’s reviews are done periodically. Some jurisdictions’ last reviews were before the guidance on VASP was issued. Where this is the case, further evidence has been provided to bring clarity to the status of the jurisdiction’s progress.

Argentina	Non-compliant	Unclear
Australia	2018 MER: Compliant	On May 25th, 2021, the CEO of AUSTRAC announced that talks are underway to decide if the agency should implement the FATF Travel Rule for crypto asset exchanges. In August 2021, The Australian Department of Home Affairs said it agrees with submissions from industry that the government currently does not have the technological capability for implementing a travel rule for cryptocurrencies. <sup>28</sup>
Bahrain	2018 MER: Largely Compliant	In Feb 2019, the Central Bank of Bahrain introduced new legislation, including rules for licensing, governance, minimum capital, control environment, risk management,

		and AML/CFT. It is unclear if these meet FATF's R16 for VASPs. <sup>29</sup>
Brazil	Non-compliant	Unclear
Canada	2021 MER: Largely compliant	Canadian VASPs are expected to comply with Travel Rule guidance as of June 1, 2021. Under the new rules, MSBs and foreign MSBs are required to identify clients from which they are receiving the virtual currency equivalent of \$10,000 CAD or greater. The transfer, exchange, or remittance of virtual currency equivalent to \$1,000 or greater will likewise trigger KYC verification requirements. <sup>30</sup>
Caribbean	Bahamas - largely compliant, Barbados - largely compliant	The Caribbean Financial Action Task Force is an FATF-style regional organization of jurisdictions in the Caribbean basin which have agreed to implement common countermeasures against money laundering. <sup>31</sup>
China	2020 MER: Partially compliant	China was found to be partially compliant with R16; it has recently banned all transactions related to cryptocurrencies. <sup>32</sup>
El Salvador	Unclear	Unclear
European Union	Mandated	The Crypto Travel Rule is mandated in the European Union as of June 20, 2021. <sup>33</sup> The European Commission published a proposal to regulate information accompanying transfers of funds and certain crypto assets, which called for consistency with the FATF Travel Rule.
France	Mandated	The Crypto Travel Rule is mandated in the European Union as of June 20, 2021. <sup>34</sup> The European Commission published a proposal to regulate information accompanying transfers of funds and certain crypto assets, which called for consistency with the FATF Travel Rule. <sup>35</sup>
Germany	Mandated	Germany mandated the Travel Rule on May 26th, 2021, the Federal Ministry of Finance (BMF) released a draft bill, Crypto Securities Transfer Regulation (German: KryptoTransferV), which mandated the Travel Rule. <sup>36</sup> The Crypto Travel Rule will be mandated in Germany by the end of 2023, once the German Federal Ministry of Finance approves the ordinance. Minimum threshold for the application of this rule will be EUR 1000.
Gibraltar	2019 MER: Compliant	Though Gibraltar's last MER was in 2019, in March 2021 the government published the Proceeds of Crime Act 2015 (Transfer of Virtual Assets) Regulations 2021 (Transfer of Virtual Assets Regulations). <sup>37</sup> The Transfer of Virtual Assets Regulations transpose the Travel Rule into Gibraltar law and introduces new terms such as 'virtual asset service provider', 'virtual asset transfer' and 'virtual asset account'. The rule applies to transactions equal to or above €1000.
Hong Kong	2019 MER: Largely compliant	The framework proposed by the Securities and Futures Commission (SFC) will extend Hong Kong's traditional AML obligations for wire transfers to all VASPs operating in Hong Kong. <sup>38</sup> If passed, fund transfers above \$8000 will require the originating institution to send information that would comply with the Travel Rule. The final proposal for this framework is set to be introduced to the Legislative Council in 2021.
India	Unclear	



Indonesia	2018 MER: Largely compliant	Unclear if VASPs have been included in implementation of R16.
Israel	2018 MER: partially compliant	While Israel applies the basic requirements for originator and beneficiary requirements for cross-border transfers, Israel otherwise relies on general CDD obligations instead of providing specific requirements for wire transfers. Particularly, MSBs whose business model often entails the provision of wire transfers are not subject to specific obligations. <sup>39</sup>
Italy	Mandated	The Crypto Travel Rule is mandated in the European Union as of June 20, 2021. <sup>40</sup> The European Commission published a proposal to regulate information accompanying transfers of funds and certain crypto assets, which called for consistency with the FATF Travel Rule.
Japan	2021 MER: Largely compliant - 2021	The Financial Services Agency (FSA) has also enforced the travel rule in the crypto industry to enhance cooperation among jurisdictions to counter terrorism financing and anti-money laundering effective April 2022. <sup>41</sup>
Mexico	2021 MER: Compliant	
Nigeria	Unclear	
Russia	2019 MER: partially compliant	
South Korea	2020 MER: Largely compliant	Korea's amended Act on Reporting and Use of Specific Financial Transactions requires VASPs to register an authorized real-name bank account and report it to the Financial Intelligence Unit (FIU). <sup>42</sup> In addition, each Korean VASP will have to apply for an information security certificate that requires them to first fulfill new regulatory requirements, specifically implementing a suitable technical "Travel Rule" solution.
Saudi Arabia	2018 MER: Largely compliant	
Singapore	2019 MER: Compliant	The Monetary Authority of Singapore (MAS) covers the Travel Rule in paragraph 13 of Notice PSN02. This requires VASPs to prove ownership of non-custodial wallets. The minimum threshold is not specified, but transactions under \$1,500 SGD have a reduced set of requirements. The act came into effect January 28, 2020. <sup>43</sup>
South Africa	Unclear	The Intergovernmental Fintech Working Group (IFWG) introduced a policy paper for the crypto industry on April 14, 2020. <sup>44</sup> It states that crypto businesses must comply with the Travel Rule, but it does not specify a transaction threshold. The paper estimates that it will take 6-9 months for local regulators to implement these guidelines. It introduces the term Crypto Asset Service Provider (CASP) as a new class of regulated institutions that aligns with the FATF VASP definition. CASPs are required to comply with FATF's AML/CFT measures like FATF's Recommendation 16 on the Travel Rule.

Switzerland	2020 MER: Largely Compliant	The Crypto Travel Rule went into effect on January 1, 2020. <sup>45</sup> It requires VASPs to implement the travel rule for transaction amounts above \$1,000 CHF and prove ownership of non-custodial wallets. The minimum threshold was originally set at \$5000, but this was lowered to \$1000 in February 2020.
Thailand	2021 MER: Largely Compliant	Thailand has largely fulfilled the requirements for accurate originator and beneficiary information accompanying cross-border wire transfers, and explicit provisions for wire transfers below 50,000 THB (\$1,000 USD). However, there are still deficiencies, such as retaining originator and beneficiary information with all cross-border wire transfers. <sup>46</sup>
Turkey	2019 MER: Largely compliant	In its 2019 Mutual Evaluation Report, the FATF determined that Turkey is largely compliant with the travel rule. <sup>47</sup> There are some minor gaps regarding lack of explicit requirements for VASPs to consider information on both originator and beneficiary sides, but FIs must verify the identity of customers when the amount of a single transaction or the total amount of linked transactions in wire transfers is greater than 2,000 TRY.
United Arab Emirates	2020 MER: Compliant	In Feb 2020, The Financial Services Regulatory Authority (FSRA) of Abu Dhabi Global Market (ADGM) announced the enactment of various amendments to the FSRA's regulations and rules concerning the authorization and supervision of virtual asset-related activities within ADGM. The key amendments include changing the terminology of "Crypto Asset" to "Virtual Asset", to be aligned with the terminology used by the Financial Action Task Force and moving the applicable regulations and rules from a bespoke category of "Operating a Crypto Asset Business", to their respective underlying Regulated Activities (e.g. Providing Custody; and Operating a Multilateral Trading Facility, Dealing in Investments, etc.). <sup>48</sup>
United Kingdom	2018 MER: Compliant	On July 22, 2021, HM Treasury released Amendments to the Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017 Statutory Instrument 2022, which included a chapter on the transfers of crypto assets. This will be an update to the Money Laundering Regulations, will include an unspecified grace period for compliance solution integration, and proposes that full Travel Rule data transfer requirements will apply to all VASP-to-VASP transfers over £1,000. <sup>49</sup>
U.S.: federal	2020 MER: Partially compliant	The Travel Rule has already been implemented in the U.S. but was seldom enforced, although it has been refocused on since 2020 with the introduction of a proposed rule change that would dramatically reduce the transfer amount that would trigger collection of data. <sup>50</sup>

**Table 2.** Implementation of the Travel Rule

## Market Surveillance

Market manipulation continues to be a top concern for regulators. Most upcoming licensing regimes emphasize the need for demonstrably intentional, comprehensive risk programs that automate and unify transaction monitoring and market surveillance. In early 2020, Hong Kong,<sup>51</sup>

Singapore,<sup>52</sup> Japan,<sup>53</sup> and Indonesia<sup>54</sup> implemented licensing regimes which had strict trade monitoring requirements.

Regulatory frameworks in development across the EU, Hong Kong, and Singapore are expected to include requirements for specialized third party-provided surveillance systems. The EU's proposed MiCA framework would aim for continent-wide digital asset risk monitoring requirements.<sup>55</sup> Regardless of upcoming legislation, leading regulators such as the U.S.,<sup>56</sup> New York State,<sup>57</sup> Hong Kong,<sup>58</sup> Singapore,<sup>59</sup> and the UK<sup>60</sup> have already warned against crypto market manipulation. Based on existing laws, many jurisdictions have the mandate to retroactively enforce against it.

The evolving regulatory landscape remains a challenge for the digital asset community's response to market manipulation. The multi-jurisdictional reality of digital asset trade adds complexity to the challenge, alongside the balance between measures applied to the traditional financial sector and cryptocurrency rules.

## **Consumer Protection**

The increase of activity across crypto markets has seen many regulators express concerns over the consumer risks associated with digital assets. In 2021, the India Reserve Bank,<sup>61</sup> Saudi Arabia,<sup>62</sup> the UK's Financial Conduct Authority,<sup>63</sup> Australian Securities and Investment Commission,<sup>64</sup> Bank of Ireland,<sup>65</sup> and the European Supervisory Authority<sup>66</sup> were among the many regulatory bodies to issue or renew previous warnings against consumer risks of trading digital assets.

China named consumer protection as the main reason for its ban of all virtual currency-related business activity.<sup>67</sup> Although they have issued similar warnings in the past, there is a consensus that this ban will be followed with stricter enforcement. The announcement has already had an impact on industry: as of September 2021, leading exchange Huobi has announced it will discontinue service for mainland users.<sup>68</sup> Users of OTC services also appear to be leaving the market, with stablecoin issuer Tether breaking its peg against RMB in the aftermath of the announcement, suggesting heavy outflows.<sup>69</sup>

In September 2021, the acting U.S. Comptroller of the Currency Michael Hsu warned consumers about the "unregulated nature" of the digital asset environment.<sup>70</sup> SEC Chairman

Gary Gensler has similarly described crypto as the “Wild West,” and published a video on social media speaking directly to retail consumers on the risks of investing.<sup>71</sup>

There were two bills introduced in the U.S. Congress in August 2021 that encourage consumer protection and regulatory competitive developments within the virtual currency market: the Virtual Currency Consumer Protection Act of 2021,<sup>72</sup> and the US Virtual Currency Market and Regulatory Competitiveness Act of 2021.<sup>73</sup>

As well as issuing warnings, some regulators have chosen to limit retail investors’ access to all or certain crypto markets, as with the previously mentioned UK’s FCA ban on the retail trade of crypto derivatives.<sup>74</sup> Hong Kong, meanwhile, has proposed that only high net worth individuals have access to derivatives trading.<sup>75</sup>

DeFi has exposed further issues in consumer protection, as evinced by large exploits of Poly Network (\$611 million USD) and Compound (\$147 million USD), and many other, smaller exploits.<sup>76</sup> Consumers may be exposed to a variety of risks, including smart contract risks, scams (i.e., “rug pulls”), and blockchain failure risks. The non-custodial nature of DeFi (and crypto generally) means that users can choose their crypto wallet; this presents new risks, as users may be unaware of the implication of their choices. Regulators, including the FATF, have expressed concerns in addressing these risks across P2P platforms.<sup>77</sup>

## **Innovation: Barriers vs encouragement**

The focus of this section is two-fold: Firstly, the bid for protection of consumers and market integrity may create barriers to innovation in the industry. Secondly, it is worth noting the jurisdictions that have had innovative approaches towards the regulation itself.

The time and financial expenses associated with VASP registration across many jurisdictions has been cited as a barrier to innovation. Hong Kong’s voluntary opt-in registration scheme<sup>78</sup> has been relatively efficient, demonstrated by the fact that it is a popular jurisdiction for service providers. A more unorthodox approach towards cryptocurrency innovation was taken by El Salvador, which was the first country to adopt Bitcoin.<sup>79</sup> Brazil’s legislature recently approved the draft of Bill 2.303 / 15, which seeks to regulate digital currencies; there is also a proposal to update the draft bill and give Bitcoin legal status as a “payment currency” in the country.<sup>80</sup>

In 2021, the Central Bank of Argentina took a novel approach towards innovation by asking domestic banks to forward them information about their customers who perform any other kind

of crypto transactions.<sup>81</sup> The purpose of the measure is to provide further information to evaluate whether the crypto market needs further regulation.

Elsewhere, regulators have provided sandboxes to encourage innovation. Though these sandboxes create a space for firms to develop pilot programs and assess regulatory implications; they do not necessarily account for the borderless nature of digital assets.

<b>Jurisdiction</b>	<b>Nature of sandbox</b>
Bahrain	The Regulatory Sandbox is a virtual space for both CBB-licensed financial institutions and other firms to test their technology-based innovative solutions relevant to FinTech or the financial sector in general. The Sandbox will last up to nine months with a maximum extension of three months. <sup>82</sup>
Israel	A regulatory sandbox was proposed in July 2020 that will give Israeli financial technology startups an environment to experiment with products and services. <sup>83</sup>
Japan	In June 2018, the government introduced a sandbox regime to accelerate the introduction of new business models and innovative technologies. Organizations and companies both domestic and foreign can apply to experiment with new technologies such as blockchain, artificial intelligence, and Internet of Things in fields such as financial services, healthcare, and transportation. <sup>84</sup>
South Korea	There are a series of sandboxes in different municipal ordinances around South Korea, including BU.S.n. <sup>85</sup>
Singapore	Singapore created a regulatory sandbox to help firms receive Capital Markets Services Licenses. <sup>86</sup>
Thailand	The Bank of Thailand launched a sandbox under regulatory guidelines introduced in 2019. The regulatory sandbox allows financial service providers to test their financial services that incorporate new technologies and fintech innovations. In addition, the regulatory sandbox encourages financial service providers to cooperate with one another in the development of fintech innovations and new technologies. <sup>87</sup>
United Arab Emirates	The Abu Dhabi Global Market launched a sandbox in 2018. The ADGM digital sandbox provides a marketplace for open collaboration between FIs, FinTech firms, and regulators to facilitate testing and adoption of innovative digital financial products and services that can benefit the industry. <sup>88</sup>
European Union	The EU launched a sandbox-like regulatory regime for issuance of DLT-based security tokens in September 2020. <sup>89</sup>
Switzerland	Launched a regulatory sandbox in 2017. <sup>90</sup>
Canada	Launched a securities law regulatory sandbox for fintech businesses in 2017. <sup>91</sup>
Brazil	In 2020, the Securities Commission launched its Regulatory Sandbox Framework with the Central Bank and the Private Insurance Superintendence (SUSEP), which is expected to give regulatory waivers for innovative projects testing new technologies in the capital and financial markets infrastructure. <sup>92</sup>
Caribbean	In 2018, the Financial Services Commission and Central Bank launched a regulatory sandbox for the financial services sector. <sup>93</sup> The government then extended its regulatory sandbox to include blockchain and crypto companies.

Mexico	The Financial Technology Institutions Law created a regulatory sandbox for startups, which allows them to operate for two years with a temporary license without meeting all regulatory requirements. CNBV issued its first license on January 22, 2020, to a cryptocurrency market, and as of February 2020 at least 85 entities had filed applications. <sup>94</sup>
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**Table 3.** Jurisdictions that have reg sandboxes

## Adoption: Institutional participation

This year saw a considerable increase in institutional activity in digital assets. Fidelity Digital Assets' report showed that U.S. and European interest in digital asset investment products increased by 12 percentage points year-on-year, with 84 percent of surveyed investors interested in purchasing institutional investment products that hold digital assets.<sup>95</sup>

Within Europe, there is a concern that MiCA favors incumbents over new market entrants. For example, existing providers with MiFID licenses can provide cryptoasset services, provided they comply with the operational requirements of MiCA; credit institutions that comply with the Capital Requirements Regulation will not have to apply for authorization under MiCA;<sup>96</sup> and cryptoasset service providers are required to be authorized as a payment institution under PSD2 in order to make a payment. These requirements operate on the assumption that traditional market participants are in the best position to manage risk.

Elsewhere, banks have actively been discouraged from involvement in digital assets. Most notably, China reiterated earlier statements in September 2021 that virtual asset-related business activities are illegal.<sup>97</sup> Nigeria's central bank clarified in March 2021 that they had not banned cryptocurrency use in Nigeria, but that crypto-currency transactions in the banking sector are prohibited.<sup>98</sup> The Bank of Mexico has similarly issued a statement saying that banks are prohibited from offering services or operations involving virtual assets, reducing the potential for market participation.<sup>99</sup>

In India, entities regulated by the Reserve Bank were prohibited from dealing with or assisting any person in dealing with virtual currencies.<sup>100</sup> Although this reversed by the Supreme Court, legislators have not yet proposed a solution. In Saudi Arabia, banks cannot interact with cryptocurrencies without approval from the Saudi Arabian Monetary Authority.<sup>101</sup>

The Bank of International Settlements issued a public consultation on the prudential treatment of banks' crypto asset exposure.<sup>102</sup> The proposal classifies the investment in cryptoassets according to two conditions. The first of these concerns any activities that are related to traditional assets, in other words tokenized traditional assets and stablecoins. These are

assigned a similar risk weighting to traditional financial assets, but with capital add-ons. This raises the question of tech neutrality within the legal framework.

The second category concerns all other crypto assets, where assets are assigned the highest risk weighting under the Basel framework. This is a vast category and seemingly ignores the nuances between different crypto assets. Parts of the industry have warned that this may limit institutional participation in digital assets.<sup>103</sup>

## Central Bank Digital Currencies (CBDCs)

The pace of development in CBDCs continued through 2021. Some of this can be attributed to a worldwide push towards digital solutions to challenges posed by the global pandemic. Some have attributed the developments as an attempt to mitigate the perceived risks of global stablecoins. A 2021 survey from the Bank of International Settlements found that 86 percent of countries are actively researching the potentials for CBDCs, with 60 percent experimenting with the technology, and 14 percent deploying pilot projects.<sup>104</sup>

In April 2021, the U.K. announced the joint creation of a CBDC Taskforce to coordinate the exploration of a potential CBDC as a new form of digital money issued by the Bank of England and for use by households and businesses.<sup>105</sup> In July, the ECB announced a 24-month “digital euro” project to examine user and merchant preference for a CBDC.<sup>106</sup>

Live uses of CBDCs include the Bahamas’s Sand Dollar launched in 2021,<sup>107</sup> and Cambodia’s Project Bakong.<sup>108</sup> China has conducted a range of tests with its digital yuan and is preparing for broader release at the Beijing Winter Olympics in 2022.<sup>109</sup>

Within wholesale use cases, cross border projects make up a significant number of advanced initiatives. The BIS is leading multiple projects, including in Switzerland, Hong Kong, and Singapore.<sup>110</sup>

	Research projects	Proof of Concept	Pilot
Retail	U.S. Indonesia Malaysia Canada United Kingdom Israel Russia Thailand Bahrain	Japan	South Korea Nigeria Jamaica East Caribbean Central Bank China

	Brazil UAE Hong Kong South Africa Turkey Australia European Union Bermuda		
Wholesale	Japan European Union Switzerland Israel France	Thailand Hong Kong	Singapore UAE Canada France South Africa

**Table 4.** Global CBDC Initiatives

## Taxation

An emerging trend across jurisdictions is market guidance and legislation occurring through taxation, rather than through direct top-down regulation. Jurisdictions around the world continue to diverge in their tax approach to cryptocurrency. India has announced plans to tax cryptocurrency,<sup>111</sup> while South Korea may further delay its law to tax cryptocurrency.<sup>112</sup>

Most jurisdictions treat cryptoassets as non-currency for tax purposes, which means that transfers of cryptoassets can result in tax liability in many jurisdictions. With bitcoin reaching an all-time high price in April 2021,<sup>113</sup> tax authorities are trying to ensure that they collect the taxes due and are increasingly focused on information reporting by exchanges and other VASPs.

In the U.S., the Internal Revenue Service (IRS) has the authority to collect information from brokers regarding transactions they effectuate on behalf of customers.<sup>114</sup> Although the IRS has been working on regulations to extend broker reporting to crypto asset exchanges, the U.S. Senate has passed legislation (which is pending in the House of Representatives) that would expand the definition of broker to “any person who (for consideration) is responsible for regularly providing any service effectuating transfers of digital assets on behalf of another person.”<sup>115</sup> Industry participants are concerned that the language could be construed to encompass participants in the ecosystem that are not acting as traditional brokers and do not have insight into the underlying transactions, such as miners, stakers, providers of hardware/software wallets, or developers of digital assets or protocols.

Similarly, the E.U. has been working on its eighth update of the Directive on Administrative Cooperation (DAC8),<sup>116</sup> which would expand the collection and exchange of information to include transactions involving crypto assets. The OECD is working on proposals for reporting



and exchange of information with respect to crypto assets.<sup>117</sup> It is unclear how these developing information reporting regimes will apply to decentralized protocols.

The crypto asset industry is evolving quickly — in the past year, DeFi and NFTs have surged in popularity (and price), and there has been increasing use of stablecoins and staking. Tax authorities are not generally well-equipped to keep up with emerging areas of tax law — they often develop their knowledge base through examination of past tax returns. Many jurisdictions have thus far only provided guidance on virtual currencies, such as bitcoin. Very few have provided any guidance on the treatment of these emerging issues. For example, Australia<sup>118</sup> and Norway have provided some guidance on DeFi; the U.K. tax guidance covers stablecoins and staking;<sup>119</sup> and Singapore's GST guidance excludes stablecoins from the definition of digital payment token.<sup>120</sup>

## Looking Ahead

As the digital and crypto assets markets continue to grow, additional areas of research and mapping include develop of NFTs, DAOs, social tokens, metaverse vs #IRL (in real life) economies, and the interplay between multi-dimensional worlds. Further, the topic of Sharia compliant products and services in the context of cryptocurrencies, is growing and warrants further develop into 2022. For example, Rain is the first cryptocurrency exchange in Bahrain to graduate from the regulator's sandbox and apply for a license and compliant with Sharia law. The Shariah Compliance Certificate is issued by the Shariah Compliance Body (SRB), licensed by the Central Bank of Bahrain to be a Shariah consulting company, authorized to issue Shariah compliance certificates. 'Yasser S Dahlawi, founder and CEO of SRB said, we are confident that we will be able to further develop the Islamic crypto and exchange business systematically and help customers like Rain open new opportunities for investors.<sup>121</sup> GSMI 3.0 in 2022 will consider adding these topics alongside the critical ones addressed herein.

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