GLOBAL
DIGITAL
FINANCE

**October 9, 2018**

The Financial Action Task Force (FATF)
2, rue André Pascal
75775 Paris Cedex 16
FRANCE

**Re: GDF Input to FATF 40 Recommendations**

**Background**

Global Digital Finance (GDF) is an industry body that drives the acceleration and adoption of digital finance technologies to support the next era of digital commerce.

GDF has gathered a broad range of industry participants since its inception in February 2018, with over 200+ Industry community members across the globe all working in and around the crypto asset industry. It has held multiple in-person and virtual forums across the world to consult with the industry on its Taxonomy for Cryptographic Assets, and Cryptoasset Code of Conduct and conducts periodic Summits with its membership.

GDF has also formed multiple industry working groups focused on priority policy areas, including AML/CTF. The GDF AML/CTF Working Group has met weekly for the past few months to examine how international AML/CTF standards could be applied to the evolving crypto asset ecosystem.

In light of the work FATF has been undertaking in relation to the crypto asset industry, the GDF's AML/CTF Working Group has reviewed the 40 FATF Recommendations (FATF 40) with a view toward providing high level input with regard to the application of the FATF 40 to the crypto asset industry.

Of particular note, we make reference to the GDF taxonomy[1] that defines different types of actors that are emerging in the crypto asset industry, as well as to the three parts of the GDF Industry Code of Conduct[2] - the Overarching Principles, the Additional Principles for Token Sales and the Additional Principles for Token Trading Platforms - that have already been released and that each incorporate the general need for AML/CTF compliance.

GDF provided a first embargoed draft of the present letter to FATF on September 4, 2018 at the occasion of the highly successful FATF/ EAG Fintech and RegTech forum. We have since reached out to our community via a dedicated and specially crafted survey to assist the FATF further, the results of which are shown in the ANNEX. Having

[1] See https://www.gdf.io/docsconsultations/taxonomy-for-cryptographic-assets-v-2-3/ . See also Appendix 1 for an extract of the GDF Taxonomy regarding Actors. Note that the GDF Taxonomy may be subject to update/ amendment post the public consultation concluded on August 31, 2018. The latest version will be available on www.gdf.io when such update is completed.
[2] See https://www.gdf.io/ .

collected and analyzed the responses, we have incorporated them herein and amended the letter accordingly.

We remain at the disposal of FATF to discuss, conduct further research or provide further input on any of the topics set out herein or that otherwise are of interest to FATF. We would also like to inform you that members of authorities are welcome to join our summits in an observation or sharing capacity. Our next summit is taking place in October. Details can be found on www.gdf.io.

Contributors to this document are listed at the end.

## A. Applicability of Existing FATF 40 Definitions –

- The GDF Taxonomy lists the following actors[3]:

    1. Issuers
    2. Issuer Service Providers
    3. Platforms & Wallets
    4. Investor / User
    5. Consumer Services
    6. Advisory

- For the purposes of the survey, we further broke down this categorization as shown in the ANNEX.

- A pivotal question that FATF needs to address is (a) whether it wishes to capture actors/ activities in the crypto assets industry under the standing definitions of FIs and DNFBPs, or (b) whether instead it wishes to introduce new definitions to address certain actors/ activities, or (c) a combination of both.

- **Takeaway 1** - It is recommended that FATF clarify whether and how the currently existing definitions of FIs or DNFBPs apply to actors/ activities in the crypto asset sector, or whether it wishes to introduce new definitions.

- The answer to this question is pivotal as to which standards apply and which do not. It is also pivotal in terms of the exception categories that may need to be created to the standards that would apply as a result of this decision.

- While certain actors/ activities are reminiscent of those conducted by the categories listed under the current FI definition by FATF, given the reliance on novel technologies, there are also significant differences.

- For example -

    **a. Consumer tokens -**

    - As described in the GDF Taxonomy, a consumer token is a digital asset that is inherently consumptive in nature (i.e. its intrinsic characteristics

[3] See Appendix 1 for an extract of the GDF Taxonomy regarding Actors.

are designed to be used or consumed, e.g., in connection with or as a good, service or content)[4].

- By implication, corporates that create consumer tokens to represent a right to consume or use the goods, services or content they produce/ sell or share the benefits thereof, should not be FIs and should not be subjected to the same AML/CTF expectations as FIs, even if they accept fiat money as payment for the tokens.

- This is because such corporates issuing consumer tokens is no different from the same corporates accepting fiat as they have always done in the past in exchange for goods, services or content. The issuance of consumer tokens is also not dissimilar from corporate memberships which are not subject to AML/CTF expectations.

- Notwithstanding the above, in some cases it is possible that digital assets, including consumer tokens, could be issued, sold or exchanged in a manner that creates AML/CTF risk. FIs (e.g. banks) or DNFBPs (e.g. lawyers) may encounter the actors or proceeds. Existent legal obligations should be applied or adapted as appropriate to identify and mitigate the risks associated with these activities, including at the point of conversion to fiat.

- Furthermore, trading platforms and exchanges that match orders in digital assets or custodians of such digital assets may be viewed to be performing functions similar to FIs, as is also apparent from the GDF survey results in the ANNEX.

**b. Smart contract developers/ technology providers and decentralised open-source protocols -**

- Smart contract developers and technology providers should not be FIs if they merely create a smart contract that is published and exists on a public blockchain.

- Also, decentralized open-source protocols are not FIs. Protocols are software and by implication entirely and irrevocably deterministic. The rules are set in the code with no possibility to do anything other than what is laid out in the code.[5]

- Notwithstanding the foregoing, in order to mitigate possible AML/ CTF risks associated with coding (e.g. a nefarious actor could create code that creates, embeds or heightens such risks), regulated FIs should exercise due care, skill and diligence when selecting, appointing and overseeing smart contract developers or technology providers, or when utilising existing smart contracts (e.g. open source code).

- Where AML/ CTF obligations do exist, it should be recognized that it may be reasonable in some circumstances to use the enhanced coordination/ communication capabilities of public blockchains to satisfy in whole or part the applicable KYC/CDD obligations. This is explained in further detail in section D. below.

[4] See Appendix 2 for an extract of the GDF taxonomy regarding Token Categorization.
[5] See also Appendix 4. In 2014, FinCEN, in an administrative ruling (the Software and Investment Ruling), clarified how software development relates to their Guidance: "The production and distribution of software, in and of itself, does not constitute acceptance and transmission of value, even if the purpose of the software is to facilitate the sale of virtual currency."

- In sum, it is important to ensure that the FATF 40 recommendations only apply to the crypto asset industry where relevant. In this context we note the focus on FinCEN on activities rather than the technology.[6] Also, given that both the digital asset sector and the blockchain technology and its applications are still evolving, any definitions and consequent obligations need to be well-balanced to not unnecessarily stifle innovation that has the potential to lead to better outcomes (e.g. easier tracking of AML/CTF risks) than currently exist. We believe that FATF taking an *"outcome based approach"* may assist in this regard.

- For completeness we would add that the *"de minimis"* exceptions contained in the FATF 40 are relevant to the crypto asset industry as many transactions are below the recommended amounts. Further, we draw attention to the most recent efforts by FINMA to reduce AML obligations for smaller Fintechs as another example of seeking to right-size obligations.[7]

- **Takeaway 2 -** It is recommended that FATF continue to liaise with industry associations including GDF towards right-sizing the FATF 40 definitions and consequent obligations, as well as towards forming a comprehensive understanding of the opportunities and risks.

- **Takeaway 3 -** If certain crypto sector actors/ activities are captured in the current FI definition, changes may need to be made to specific FATF standards, for example those on record keeping, wire transfers and CDD.

### B. Balancing Privacy and AML/CTF -

- There is a natural tension between the concept of privacy and AML/CTF, as already acknowledged in FATF Recommendation 16. This tension is becoming further emphasized in recent policy decisions and legislative changes such as those brought in by GDPR.

- New technologies like blockchain provide the consumer more choice as to the desired level of privacy. For example, permissionless public blockchains are decentralized, which means there is no centralised register linking payment addresses with beneficial owners. Also, privacy coins leverage cryptographic technologies that protect the privacy and confidentiality of transaction details on an otherwise public blockchain.

- The policy response is not straightforward and may evolve with jurisprudence and societal expectations in different markets.

- **Takeaway 4 -** It is recommended that FATF consider the optimal policy response to balance the tension between privacy and AML/CTF in the context of blockchain.

### C. Anonymous Crypto Trading Platforms –

- There are crypto trading platforms and exchanges that accept an email address as sufficient for on-boarding, referred to as *"anonymous exchanges"*. These exchanges may straddle different jurisdictions.

- **Takeaway 5 -** It is recommended that FATF study *"anonymous exchanges"* and determine whether further action is needed from an international policy viewpoint.

[6] See Appendix 4 for the FinCEN approach: "In general, an inquiry into whether a person (individual or business) fits into one of several sub-categories of "financial institution" is focused on what activities that person performs (e.g. money transmission, foreign exchange, banking, etc.), and is not focused on which technologies are used to perform those activities." Similarly many global regulators adopt a "technology neutral" approach.
[7] See https://www.bankingtech.com/2018/08/switzerland-relaxes-aml-rules-for-small-fintech-firms/

## D. Digital KYC/CDD –

- While national banking and securities rules used to be written with a view towards face-to-face on-boarding, many countries have changed their laws, rules or regulations to permit digital onboarding and KYC/CDD. Blockchain driven innovation is taking place in this context as further step towards decentralized, digital KYC/CDD.

- Accepting the development, use and enhanced coordination and communication capabilities of blockchains to satisfy KYC/CDD obligations may come with several benefits, including greater financial inclusion.[8]

- **Takeaway 6** - It is recommended that FATF continue to study and encourage new KYC/CDD methods, including the enhanced coordination/ communication capabilities of public blockchains. It could also work with industry associations such as the GDF to stay abreast of the latest industry innovations in this regard.

## E. The Drive to Decentralize –

- Blockchain technology enables a decentralized world where the exchange and settlement of digital tokens can occur on a direct "peer-to-peer" basis. Token holders can transfer tokens from their own personal wallet directly to another person's or entity's wallet.

- This type of activity is often facilitated by smart contracts.[9] People can build additional software platforms that, among other things, create graphical user interfaces utilizing these smart contracts. These platforms are commonly referred to as *"decentralized exchanges"* or *"DEXs"*. A DEX may operate autonomously, with no controlling entity that can be regulated or required to comply with AML/CTF requirements.

- While there are many different interpretations of the term "DEX",[10] currently the only reliable distinction between a centralized exchange ("CEX") and a DEX relates to custody - namely, a CEX maintains custody of its users' assets while DEXs are "non-custodial" and do not obtain custody.[11] As a result, unlike a CEX, a DEX may not maintain records about the identity of the parties to transactions, or may not conduct KYC/CDD.

- Beyond that distinction, there is significant variation among so-called DEXs in terms of their function and operation, including with respect to whether they have order books and how they manage order matching and price negotiation.

- With many DEXs, all transactions and exchanges of assets are conducted on a public blockchain. The extent to which the details of such transactions are visible to third parties depends on the underlying blockchain technology - the details may be transparent or, in the case of privacy coins, kept private. In comparison, in the case of CEX asset transfers may occur off-chain while the CEX maintains a central order book that records all activity (and can attribute it to a specific account).

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[8] For example, see Air Swap facilitating peer-to-peer KYC https://blog.airswap.io/introducing-conversational-otc-trading-358f15d8e9e4; also 0x creating permissioned liquidity pools, and sendwyre https://blog.sendwyre.com/community-driven-on-chain-compliance-d334e0f5962b?gi=d12771a20c53; also UN World Food Programme Blockchain pilot for food aid distribution in Jordan https://www.technologyreview.com/s/610806/inside-the-jordan-refugee-camp-that-runs-on-blockchain/

[9] For example, see: https://swap.tech/whitepaper/

[10] See 11FS https://medium.com/@sytaylor/what-is-a-decentralised-exchange-e2b86e844fe9

[11] See also https://rados.io/architecture-comparison-of-decentralized-exchanges/

- **Takeaway 7 -** Given the wide variance and differences between CEX and DEX, and even within each category between those where tracing is easy and those where it is not, and given the still fast evolving state of blockchain technology, an outcome driven and activity based AML/CTF approach may be more appropriate.[12]

- **Takeaway 8** - A prevalent theme that can be read from the survey responses in the ANNEX is that enforcement in the context of DEXs may be very hard, likely calling increasingly for international law enforcement coordination in the case of nefarious actors or undesirable and untoward activity.

## F. Regulatory Approaches for Wallets –

- There are many different types of wallets emerging, some of which are simply providing software-driven key management solutions for consumers, whilst others are providing a suite of functions and services that may make the wallet providers themselves into a custodian of digital assets.

- These distinctions between wallet types and functions can impact regulatory status. For example, AMLD5 classifies custodian wallet providers ("CWPs") as "obliged entities", and Australia has recognised that a digital wallet provider that simply provides a key management system and cryptographic key management is not necessarily providing a "designated service" meaning it is not necessarily regulated under the AML/CTF Act.[13]

- **Takeaway 9 –** It is recommended that FATF study the different types of wallets with a view towards defining which types of wallets are subjected to AML/CTF obligations and which are not. Also, through regulatory dialogue FATF may be able to facilitate greater regulatory consistency in regards to the treatment of wallets.

## G. Education –

- Technologists may not always have a deep understanding of the scope and implications of legal obligations and of the historic rationale for such obligations.

- Also, often technologists lack awareness, understanding or clarity of a technology platforms' potential long term responsibility and liability in regards to violation of law, including in respect to aiding and abetting in crime.

- Consequently, education and awareness generation is of the essence, including in respect to the scope and rationale of AML/CTF obligations as well as the potential platform liability in case of non-compliance or involvement in crime.

- **Takeaway 10 –** It is recommended that FATF support training and awareness campaigns, including through collaboration with relevant industry and regulatory bodies, to educate crypto industry actors about the legal expectations and liability implications of AML/CTF.

[12] Beyond the trading of crypto assets on non-custodial DEX, Appendix 4 also sets out an example of decentralized exchanges for goods and services with the use of crypto currencies. As noted in the 11FS blog in footnote 10 above, currently the term "decentralized exchanges" is used with a large range of meanings - covering actual trading of goods and services to the trading of tokens on custodial and non-custodial platforms. Also in this context, an "outcome driven approach" may be most flexible to account for the diversity and future evolution.

[13] See Appendix 3 for an overview of the Australian regulations. See also Appendix 4 for the FinCEN guidance and interpretations as to the scope thereof.

# ANNEX - Survey to GDF membership

Below are the inputs received as part of a member survey that the GDF conducted to further assist FATF. *The questions asked are in italic*; responses and additional comments received thereunder.

*Please note that the responses and additional comments reflect the views of individual members and not necessarily of the broader GDF membership. Also, the responses have not been verified for factual, legal or regulatory accuracy.*[14]

## A. Scope of FATF Recommendations - Definition of Financial Institution

*1. The definition of "Financial Institution" set out in the FATF recommendations is as follows:*

> "Financial institutions means any natural or legal person who conducts as a business one or more of the following activities or operations for or on behalf of a customer:
>
> 1. Acceptance of deposits and other repayable funds from the public
> 2. Lending
> 3. Financial leasing
> 4. Money or value transfer services
> 5. Issuing and managing means of payment (e.g. credit and debit cards, cheques, travellers cheques, money orders and bankers drafts, electronic money).
> 6. Financial guarantees and commitments
> 7. Trading in: (a) money market instruments (cheques, bills, certificates of deposit, derivatives etc.); (b) foreign exchange; (c) exchange, interest rate and index instruments; (d) transferable securities; (e) commodity futures trading
> 8. Participation in securities issues and the provision of financial services related to such issues
> 9. Individual and collective portfolio management
> 10. Safekeeping and administration of cash or liquid securities on behalf of other persons
> 11. Otherwise investing, administering or managing funds or money on behalf of other persons
> 12. Underwriting and placement of life insurance and other investment related insurance
> 13. Money and currency changing."

*1.1. Which of the below crypto actors do you think should fall in the definition of "financial institution" above and should consequently be subject to regulatory know-your customer/ AML/ CTF/ Sanctions screening expectations? PLEASE TICK ALL THAT APPLY.*

**Responses:**

- Crypto Lending Apps 88.89% 8
- Crypto Credit Cards 100.00% 9

[14] There were 9 responses to the GDF survey, each of which are reflected herein. The identities of the respondents have been kept private.

- Crypto Payment Apps 66.67% 6
- Centralized Crypto Exchanges 100.00% 9
- Decentralized Crypto Exchanges 33.33% 3
- Crypto Derivatives Trading Platforms 88.89% 8
- Crypto Brokers 77.78% 7
- Crypto OTC Desks 88.89% 8
- ICO Issuers 55.56% 5
- Parties providing of services related to ICO issuance 22.22% 2
- Crypto Funds 88.89% 8
- Crypto Custodian Wallet Providers 66.67% 6
- Crypto Non-custodial Wallet Providers 11.11% 1
- Crypto Investment Apps 55.56% 5
- Smart Contract Developers 11.11% 1
- Corporates issuing a Consumer Token for their goods/ services/ products 22.22% 2
- Other (please specify) 11.11% 1:
- Crypto Lending Apps: depends if P2P or institutional lending, custodial/non custodial, and if securitized or not
- Crypto Credit Cards: non applicable below certain threshold
- Crypto Derivatives Trading: depends on whether the operator holds the assets
- Crypto OTC desks: if they hold customer assets/ escrow they could potentially qualify as custodian.

*1.2. Do you believe there are crypto actors that should for sure NOT be captured by the definition of financial institution/ should NOT be subject to know-your-customer/AML/ CTF/ Sanctions screening expectations?*

**Responses:**

- Anybody who is not holding customer funds; software developers; peer-information providers; utility/ consumer token issuers; pure infrastructure/technology providers.
- It can really be on a case to case to basis. If you look at the technology and ask "Can I successfully launder money through this if there are no checks?" and the answer is no, then they don't need to comply. Most of the crypto to crypto trading, derivatives, and on-chain activity is so transparent that the answer is a pretty definitive no.
- Anything which is a decentralised and open-source protocol. Reasoning revolves around these being protocols - therefore software - therefore entirely and irrevocably deterministic. The rules are right there in the code with no possibility to do anything other than what is laid out in the code. As such, concepts of deception, fraud, theft etc hold little relevance. It's then up to the user to chose to use such a protocol, for which we will see Certificating Authorities and codes of conduct emerge to make this choice easier (just like the internet - see https://en.wikipedia.org/wiki/Certificate_authority).
- Enforcing this with decentralised exchanges seems not possible/hard.
- In our opinion, true decentralised exchanges and non-custodian wallets should not be included.

## B. Other Policy questions

*2. The current FATF de minimis threshold is 1000 USD, below which there is no need to verify customer identity (even though the name of the customer still must be collected). Do you agree with the 1000 USD de minimis threshold? The relevant FATF language is below:*

> "Countries may adopt a de minimis threshold for cross-border wire transfers (no higher than USD/EUR 1,000), below which the following requirements should apply: (a) Countries should ensure that financial institutions include with such transfers: (in) the name of the originator; (ii) the name of the beneficiary; and (iii) an account number for each, or a unique transaction reference number. Such information need not be verified for accuracy, unless there is a suspicion of money laundering or terrorist financing, in which case, the financial institution should verify the information pertaining to its customer. (b) Countries may, nevertheless, require that incoming cross-border wire transfers below the threshold contain required and accurate originator information."

**Responses:**

- Generally agreed.

**Additional comments:**

- The FATF threshold applies to cases where fiat currency is involved and talks about wire transfers, where some personal information is available as part of the SEPA/SWIFT message. However in blockchain transactions this information may not be available.
- Sounds reasonable if low - totally depends on the purchasing power of a country.
- Agree, but would recommend a "linked transaction" requirement so as to bring multiple smaller value transactions adding up to 1k within scope as well.
- While we agree with the de minimis threshold, countries should employ some mechanism to make it easier for migrant workers to transfer money across borders and support financial inclusion.
- Why not look at what normal transactions are and pick that number? There is data on this.

*3. Do you feel the following definition is sufficient to capture self-sovereign identity, zero-knowledge proof or other new customer due diligence technologies?*

> "Identifying the customer and verifying that customer's identity using reliable, independent source documents, data or information."

**Responses:**

- Agreed 55.5% 5
- Disagreed 22.2% 2
- Skipped 22.2% 2

**Additional Comments:**

- I don't think it's possible nor appropriate to try and bucket protocols/ tokens using zero knowledge proofs and other privacy-preserving technologies technologies into traditional KYC procedures. If you mix zero-knowledge proofs with programmatic compliance you get to a situation where you can mathematically prove both sender and receiver are complaint for a transfer without ever revealing any identity. This achieves the spirit of what due diligence regulations are trying to achieve, without disclosing any personal information. If the above scenario would fit into your definition then I would change my answer to yes.
- I think the definition is very broad and should be more specific of the type of identity data that should be collected and on the type of source of validation that are accepted.

*4. Should Decentralised Crypto Exchanges be subject to the same know-your-customer/ AML/ CTF/ Sanctions screening expectations as Centralised Crypto Exchanges?*

**Responses:**

- Agreed 44.4.% 4
- Disagreed 44.4% 4
- Skipped 11.1.% 1

**Additional Comments:**

- Decentralized exchanges should be subject to KYC/AML/CTF requirements. Regulations should be based on activity based approach and decentralized exchanges perform the same functions as centralized exchanges.
- All decentralized exchanges are crypto to crypto. There has to be a point at which it's about the 'end point' or getting cash. Trying to require KYC/AML verification for any transaction that includes something of value is a tough road to legally enforce.
- They pose the same risks. There is an argument that the holder of the crypto would have had to be KYCd in order to obtain it, but this is not sustainable, due to the ease of private transfers of crypto.
- Depends what's being traded. If this technology works, then there's a subset of token transfers that are basically going to look like what an API call is today. For these, it won't make sense to do KYC/AML on fractions of pennies paid to e.g. view a news article, run some compute or validate your identity. For other tokens, they're going to look like securities or currencies/ stores of value. Clearly authorities are going to want oversight over this. All will trade on DEXs. Some DEXs can integrate programmatic compliance. Others will refuse to, and it will very difficult to enforce against if these are properly decentralised.
- Decentralised Exchanges only provide the technology for market participants to exchange directly between each others. Technically speaking, a fully decentralised exchange can be impossible to regulate/ control. There could be an opt-in feature where users that validate their identity get a better "rating" on the exchange. But I struggle to see how regulation can be enforced on DEXs.
- In our opinion, enforcement wouldn't be feasible due to the decentralised nature of such exchanges.

*5. Regulators are worried about the AML and CTF risks associated with crypto assets. In what way can a greater adoption of crypto assets increase transparency and reduce AML and CTF risks?*

**Responses:**

- Public blockchains are in many ways a regulators best friend: a persistent, irrevocable record of every transaction ever. Programmatic compliance is something regulators should wholeheartedly embrace and encourage. It would make compliance crypto-native, deterministic, and perfectly efficient. Regulators should look forward to a world where it's mathematically impossible for a cryptoasset to be sent from or received by a wallet without the trade being compliant.
- With greater adoption, more traditional enterprises and institutional players will start using crypto assets. These players are regulated entities and are adept at managing AML and CTF risks. Furthermore, with more adoption more regtech startups will be launch new technology and products to detect and manage risks linked with crypto assets.
- When there are more agents on all ends of the transaction, especially ones that are subject to regulatory frameworks, the higher the likelihood that parties to the transactions are properly identified, and hence more transparency in the flow of funds.
- Once crypto is in widespread use, consumers will demand that it be as safe and secure as possible.

*6. What are key challenges for blockchain/ crypto companies in complying with data protection legislation that requires for personal data to be deleted after a certain number of years? How can this be addressed?*

**Responses:**

- There is tension between AML obligations and data privacy obligations.
- Blockchains are a shared data layer - the whole structure is designed for append-only. There are ethical issues here around the right to be forgotten etc. for which there are no good technical answers.
- One imperfect solution is to regulate the search engines/ portals (as individuals are unlikely to read directly from the blockchain itself).
- A second solution is to create an exception for information held on blockchain, provided appropriate security and access controls are in place.
- A third solution is to change the law and move more towards people not having to give their personal information to every vendor they interact with.

## C. Novel Technology Questions

*7. Could you provide the names of/ links to vendor technologies that can be used for digital onboarding/ know-your-customer/ customer due diligence by crypto actors?*

**Responses (alphabetical order):**

- Au10tix
- Civic
- Comply Advantage
- Dow Jones

- GBGroup
- Hellobloom
- IDology
- isignthis
- Jumio
- KYC Chain
- Lexis Nexis
- Mitek
- Onfido
- Simple KYC
- SnapSwap
- Telindus
- Thomson Reuters
- u-port
- Vixverify
- YOTI

*8. Could you provide the names of/ links to new technologies that can be used by crypto exchanges to perform AML surveillance?*

**Responses:**

- Chainalysis
- Elliptic
- https://tplprotocol.org/pdf/TPL%20-%20Transaction%20Permission%20Layer.pdf

*9. Could you provide the names of/ links to new technologies that can be used by crypto exchanges to perform AML surveillance for privacy coins?*

**No responses**

*10. Could you provide the names of/ links to new technologies that can be used by crypto exchanges to perform market misconduct/ manipulation surveillance?*

**Responses:**

- Chainalysis
- Elliptic
- Smarts
- Actimize

*11. Could you provide the names of/ links to new technologies (including those still under development) that you believe are promising to in the future assist with digital onboarding/ know-your-customer/ customer due diligence for decentralized crypto exchanges?*

**Response:**

- Know-me-now
- YOTI
- https://tplprotocol.org/pdf/TPL%20-%20Transaction%20Permission%20Layer.pdf

# Appendix 1: Actor definitions from GDF Taxonomy (Excerpt)

## Issuers

Issuers are people, organisations or institutions that issue tokens for the use and consumption of goods and services. This function is similar to the way governments issue notes or 'fiat' currency today. Issuers consist of project contributors, non-bank financial institutions (pension funds), governments, and banks.

Project contributors, corporate organisations and non-bank financial institutions typically issue tokens by means of an Initial Coin Offering. Through this process, issuers raise capital via fiat currency in return for tokens.

Financial institutions such as central banks and commercial banks might issue tokens as a means of settlement or as a representation of currency pegged to an existing government note or underlying asset. Commercial banks may issue a token as a national digital currency designed to be used as an alternative to cash to reduce transaction costs associated with a cash dependent society. Central banks may issue state sponsored tokens (i.e. stablecoins) stabilised by existing, underlying assets.

## Issuer Service Providers

Issuer service providers are market actors that facilitate, process or provide infrastructure or service for the issuer of a token. Cryptocurrencies and tokens are unique from fiat currency in that their supply is generated by a set of rules including a consensus algorithm. Mining is the process by which transactions are verified and added to the distributed ledger, also known as the blockchain. Miners or validators, support this process by providing computing resources to process, validate, and maintain a copy of the distributed ledger. Miners are rewarded for providing this service according to rules and consensus protocol of that blockchain. In public implementations, anyone with access to the Internet and suitable computing hardware can participate in mining. In a permissioned blockchain implementation, one must be a part of a business network to validate transactions. Miners can be individuals or corporations (such as Bitfury, MinerGate, etc.)

Mining pools are groups of miners coming together to share resources, specifically computing, in order to achieve economies of scale and share in the reward for their combined computing power. Examples of mining pools include AntPool, ViaBTC and many others.

Other actors play a role in providing services to Issuers and these include token issuance advisory professionals who can provide expertise in cryptography, economics, token design, technical architecture, marketing, etc. in support of an issuer's project.

## Platforms & Wallets

## Trading Platforms

Trading platform (commonly referred to as an "Exchange") is the term within this paper used to describe any venue which facilitates the exchange of tokens for any form of money or asset. Trading platforms provide services to buy and sell tokens

and/or for exchange of national (fiat) currencies backed by central banks. While some have referred to them as trading venues (see the SEC DAO ruling), the majority of trading platforms facilitate the trade of cryptoassets as a means of exchange rather than the trade of financial instruments – as is common in regulated trading venues. Therefore, trading platforms herein refer to institutions which facilitate token trading which are not regulated securities.

Trading platforms provide an essential service in the growing digital asset market by providing liquidity and the ability to trade which forms an integral part of price discovery. Most trading platforms sell cryptoassets and payment tokens, commonly referred to as "cryptocurrencies".

There are two types of trading platforms today, centralised and decentralised. Centralised platforms (i.e. Coinbase or Binance) facilitate the buying and selling of token orders through their platforms by providing a trusted service to end users. Centralised platforms can also be extended to OTC markets which keep their own centralised stock. Decentralised trading platforms or (DEX's) offer peer to peer trading platforms which enable the direct purchase and sale of tokens between market participants outside of an exchange. Decentralised platforms create highly sophisticated and "trustless" environments by using smart contracts for peer to peer trading. Examples of decentralised platforms include Ether Delta and 0x.

## Wallets

Platforms also exist in the form of wallets for asset custody. Asset custody refers to the means in which cryptoassets are stored. Cryptoassets can be stored in custody of the crypto asset owner or a third party. Software or hardware services are used to securely store, send, and receive tokens through the management of private and public cryptographic keys. Depending on the provider, other services they may also include balance checks, fee estimates and transaction confirmation times. The two most common types of asset custody are web-based asset storage and hardware wallet cold storage.

Web-based asset storage can be in the form of a self-hosted wallet that stores tokens and is accessible through web-interfaces, or through a trading platform where the individual purchases the right to claim "X" amount of a digital asset. Hardware wallet cold storage is found in USB sized wallets that are stored offline and require a biometric identifier to unlock.

## Investor/User

An investor and user of a token can be one and the same for if one has invested in a token one can, in principle, also use it and if one possesses a token for consumption one can also decide to keep it as an investment and not use it. For this reason, we have grouped these two actors together in the same category for they can be indistinguishable in terms of ownership of tokens; however, their differing characteristics reside in how they use tokens.

An investor acquires a token with the intent to hold or trade it for a positive return. A common term for holding onto a token as an investment is "holding" which originates from a misspelling in the online community of "holding". Investors employing this strategy are referred to as "holders". An active trading strategy results in fees, reducing profits. With a long-term investment strategy the investor selects assets to invest in and waits. Other investors own tokens in the short-term to trade it

for fiat or other cryptocurrencies at a higher value than originally purchased. Additionally, there are broadly five types of investors in this space:

### Retail

As in the traditional financial system, a retail investor is a non-professional investor trading and purchasing tokens as a hobby or at amounts that are much smaller than professional investors and institutions.

### High Net Worth

A high net worth investor is distinguishable from retail by the amount at which they can invest. Resources can come from accredited or registered investors or from individuals who invested early in the cryptocurrency space and have thus accumulated significant positive returns to invest large amounts. High net worth investors originating in the cryptocurrency space are colloquially referred to as “whales” or “crypto rich”.

### Venture Capital (VC)

VC companies are those that invest in a token for short-term returns or long-term belief in the issuer company potential.

### Crypto Fund or Asset Manager

An investment fund or asset manager with an exclusive focus on digital assets or blockchain based investments.

### Institutional Investors

Includes banks, insurance companies, pension funds and hedge funds.

### User

As touched upon earlier, a user and an investor can often be one and the same. In the current state of the token market this is the case, however it is possible that in the future, participation in an ecosystem and use of a token may not require or necessitate ownership of the underlying asset. The user would simply use the token in exchange for goods or services in the ecosystem.

### Consumer Services

Consumer services consist of individuals and organisations that make up the infrastructure and facilitate the sustainability of cryptoassets. Consumer services consist of market makers, brokers, payment and merchant services, research and analysis firms, and news/media outlets.

### Market Makers

Market makers are participants that provide liquidity for principal trades by buying and selling cryptoassets at prices noted on exchanges. Market makers consist of brokers and trading platforms.

## Brokers

Brokers act as an agent for an investor wishing to buy cryptoassets and charge a fee or commission for executing buy and sell orders submitted by an investor. Brokers facilitate large transactions at great volume, without moving the market, by selling or buying at volume at a spot rate / fixed price.

## Proprietary Trading Firms

Proprietary trading firms (typically hedge funds), use professional traders, proprietary technology, and robust risk management systems to manage their own inventory and continuously provide liquidity on token trading platforms.

## Payments & Merchant Services

Payment and merchant services act as gateways between business, traditional financial services and token systems. These exist as traditional payment rails, wallet hybrids and POS (point of sale) hardware manufacturers.

Traditional payment rails exist in intra-institutional systems for international payments and transfers. These are used as gateways between traditional finance and token systems:

- Bank transfers
- P2P money transfer services
- B2B payments
- Digital banking alternatives providing buy, hold and exchange services (e.g. Revolut)

Wallet hybrids use traditional payment rails and infrastructure (cards and apps) to bridge the fiat to token gap to facilitate token exchange and withdrawal (i.e. Payment, STK, COTI, Bonpay, Etherecash).

POS hardware manufacturers enable payment transactions at point of sale (e.g. ATM's).

## Research & Analysis Firms

Research and analysis firms seek to provide reliable and transparent insights in the form of unbiased, data driven opinions into the cryptoasset marketplace. Examples include:

- CryptoCompare
- Mosaic
- Rootmont Research
- Greenwich Associates

## Press & Media

Communication channels through which news, entertainment, education, data, or promotional messages are disseminated. Media includes broadcast mediums such as newspapers, magazines, TV, radio, social media, etc.

## Advisory

Advisory consists of organisations aimed at aiding in the regulation and upkeep of the cryptoasset market. Advisory consists of trade associations/standards bodies/industry initiatives, and digital assets ratings agencies.

## Trade associations / Standards bodies / Industry initiatives

Several self-regulatory standards organisations – of which this paper is a part – are in the early stages of formation to provide market participants with information to improve market efficiency, and capital allocation in the token markets. This includes efforts to create public registers and common reporting methods such as Form IGF-1. (More details in the risks section) Examples include:

- Messari
- Crypto Valley Code of Conduct
- Crypto UK Code of Conduct
- The Brooklyn Project
- Japan Blockchain Association
- The Hong Kong Fintech Association

## Digital Asset Rating Websites / Agencies

Digital asset rating agencies are platforms designed to rate and judge token sales.[15]These almost function like traditional rating agencies. They provide a useful source of centralised information to inform price discovery, in a market, which can be highly fragmented, and some basic analysis (i.e. looking at competitors) of the token and the project's propensity for success. Some also host extensive data reporting on token activity – prominent examples include Coinschedule and ICOData.io.

# Appendix 2: Token categorisation from GDF Taxonomy (Excerpt)

The purpose of this proposed taxonomy is to provide a common set of labels for crypto-tokens (herein referred to as "cryptoassets" or "tokens" as appropriate). Our intention is that these labels will help to better position cryptoassets within general global regulatory frameworks more consistently.

Our taxonomy contains the following three top-level label categories, which are not necessarily mutually exclusive:

1. **Payment Tokens:** Tokens whose intrinsic features are designed to serve as a *general purpose* store of value, medium of exchange, and/or unit of account.
2. **Financial Asset Tokens:** Tokens whose intrinsic features are designed to serve as or represent financial assets such as financial instruments and "securities".
3. **Consumer Tokens:** Tokens that are inherently consumptive in nature, because their intrinsic features are designed to serve as, or provide access to, a particular set of goods, services or content.

These categories are designed in reference to a token's "intrinsic" features – i.e. the actual functions that are coded into the tokens and the networks and platforms on which they operate. It is important to note, however, that in some cases policy or regulation may turn on or consider a token's "extrinsic" features – e.g. how a token is marketed, sold or used.

It is important to consider the activity or usage can differ from the native intention of a given cryptoasset (for example the Bitcoin whitepaper was titled "A Peer to Peer Electronic Cash System" but can be observed to have many uses or activities). In addition, these categories are high level descriptions, in future work GDF will build a "bottom up" taxonomy to further build on these labels.

In the sections that follow, we explain each of these categories in more detail, including discussions and examples of important intrinsic and extrinsic features. We also conclude with a special spotlight on how these taxonomy categories and their intrinsic and extrinsic features relate to global securities laws.

## Token Taxonomy: Intrinsic & Extrinsic Features

### *Payment Tokens*

Payment Tokens are cryptoassets that have intrinsic features designed to serve as a general purpose store of value or medium of exchange. By "general purpose," we mean that these tokens are intended to serve as a medium of exchange for generally *any* goods, services, or assets, and thus are similar to more traditional currencies in that respect.

Such general-purpose Payment Tokens could be created and distributed by any number of organiSations or methods, including:

1. Central banks or other government departments
2. Commercial banks

3. Companies issuing something akin to card-based payment instruments (e.g. Apple Pay)
4. New models and distributions -e.g. a decentraliSed network creates, distributes and operates a crypto payment token, as was the case with Bitcoin

These tokens may be the native token of a particular blockchain protocol, in which case they may be issued as part of the set-up of that protocol or as rewards to "miners" who help operate the protocol.

Examples of payment tokens include: Bitcoin, Bitcoin Cash and Zcash. These three tokens are being used today as a store of value and medium of exchange, as they have an aggregate market capitalisation of roughly $150,000,000,000 USD. However, price volatility, transaction costs, and merchant acceptance are among the hurdles faced by these and other payment tokens achieving more widespread acceptance as a store of value or medium of exchange.

### *Financial Asset Tokens*

These cryptoassets have intrinsic features that are designed to represent assets typically of an underlying financial type, such as participations in companies or earnings streams, or an entitlement to dividends or interest payments. In terms of their economic function, these tokens are analogous to equities, bonds or derivatives (listed market instruments). In addition, so called alternative assets (e.g. Real Estate, Private Equity and Art etc.) are increasingly being discussed as good candidates for being Financial Asset Tokens due to the increased process efficiency that could be brought to private placements and the ability to access global liquidity pools.

Although variations may exist, a typical Asset Token would be issued by a business or entity in order to raise capital.

Examples of Financial Asset Tokens include but are not limited to tokens that represent:

- Common stock in a company
- A right to receive a certain % of operating revenues
- A corporate bond
- Fractional or full ownership of real estate or private equity assets

There exists a growing, widespread belief that the ability to represent these traditional financial assets on blockchains in tokenised form could have a profound impact on global capital markets. This could lead to capital markets that are more liquid and transparent, and where regulatory compliance is actually built into the code so that transactions cannot execute unless compliance is present.

Today, there are fewer public examples of Financial Asset Tokens than other types of tokens, in part because the industry is working to bridge the gap between this new technology and the laws and regulations that govern the creation, offering, custody, and transfer of traditional financial assets. However, as these issues are solved, we anticipate the number of Financial Asset Tokens to increase significantly.

### *Consumer Tokens*

Consumer Tokens are cryptoassets with intrinsic features that are inherently consumptive in nature, meaning they are designed to be used or consumed in some

way, such as providing access to a limited set of goods, services, or content.[6] In essence, consumer tokens can serve as or power next-generation consumer goods, services, and platforms.

Next-generation platforms powered by Consumer Tokens have the potential to allow online consumers to coordinate and create value in fundamentally new ways that are more fair, secure, and evenly distributed, because, unlike prior technologies, blockchain technology makes it possible to carry out such coordination without granting market power to any particular actor such as the current large technology companies. Online platforms powered by users who own, control, and receive value for their own data and activity could profoundly improve some of today's privacy and inequality problems.

Like other tokens, consumer tokens have extrinsic features. Through 2016 and 2017 tokens had been "pre-sold" and sold prior to the completion of the platform that the token would be consumed within. In addition, these tokens once sold have in some instances become tradeable in open marketplaces.  This activity has created an overlap with various regulated activities (such as securities issuance). The challenge is that some tokens have demonstrated some consumptive behaviour whilst others have not. Typically, there is a time lag between the liquidity event (i.e. token sale) and the token reaching a point at which it is consumptive.

The most well-known example of a Consumer Token is probably Ether, which was marketed, sold, and serves as "fuel" for the Ethereum blockchain. The Ethereum blockchain functions like a "shared world computer" by allowing any application or business logic to live and run on the blockchain in segments of code called "smart contracts." Ether is needed to pay for transactions and computation and is also provided to miners as a reward for securing and validating transactions. Thus, under our taxonomy, Ether has characteristics of a coupon, license, and reward. Ether is widely used for these purposes today: In addition the following projects have easily observable applications built on their platform.

In addition to "Eth" an argument can be made for other platforms such as NEO, Ethereum Classic (ETC) and Steemit.

Whilst "Ether" clearly demonstrates consumptive behaviour or activities, it can also be used as a payment instrument or be used to model financial agreements. This complexity is viewed differently by global authorities. To manage this geographical diversity of approach and to bring increased industry clarity Global Digital Finance has produced the "Cryptoasset Code of Conduct".

In addition Global Digital Finance proposes future work to identify the lifecycle of a cryptoasset and to build out best practices that best meet the needs of all stakeholders (including potential consumers, investors and authorities).

In practice, once a platform is available, Consumer Tokens represent a wide spectrum of use cases, ranging from enabling the creation and consumption of content on a specific platform, or as a means of blockchain to blockchain communication.

Most current consumer tokens involve one or more of the following types of intrinsic features:

- **Consumer Ownership Rights:** Tokens can themselves be a natively digital consumer good, such as a tokenised collectible like a badge for online

gameplay or a unique digital collectible that does not exist in the physical world, such as a virtual pet; or they can represent ownership of an analog (i.e. not digital or on the blockchain) good, such as a traditional baseball card. In both cases, the token can confer ownership in the corresponding good and/or represent the good.

- **Consumer Coupon Rights:** Tokens that provide a partial or complete discount on particular goods, services, or content, in the physical world or in the virtual world- e.g. file storage on a given token-powered network or electricity provided to retail customers.
- **Consumer Activity Rights:** Tokens that involve rights or obligations related to an individual user's activities on a token-powered network. With regard to consumer activity rights, we contemplate at least two current subcategories:
- Reward: Tokens that serve as a form of reward or payment for performed activities. In the cases of online platforms, the tokens earned can also be used to access features or get benefits on the platform. In the case of physical systems, the tokens may act like "frequent flyer miles" to be redeemed for services or goods.
- License: Tokens that serve as a means to access or perform certain activities related to an online service. Analogies in the analog world may include a software license, taxi medallions for New York City taxis, or occupational licensing and certifications for certain vocations. In the virtual world, this could include a token which allows access to a content-driven website. License rights may also include relationships similar to those we are all familiar with, such as a membership to a wholesale club, or the right to participate in a book club of the month.

The term "utility token" has also been used to describe what this document calls "consumer tokens." The GDF community selected the term "consumer" instead of "utility," because it properly emphasises that for a Consumer Token to become successful, it needs adoption by actual consumers who will use and consume the token. We recognise that this implies the need for potential consumer protections. Whilst many of these tokens are still early as are the platforms that support them, the Global Digital Finance community aims to strike the right balance of enabling innovation whilst being committed to efficient, fair and transparent market activity (where reasonably applicable).

# Appendix 3 - Australian Regulations

## Background

The Australian regulator and Australian parliament began examining these laws around the time that FATF first published its view on virtual currencies. The working groups considered which activities should trigger regulation and when regulation is triggered, what this means from a reporting perspective.

In relation to the activities the following questions arose:

1. What is digital currency?
2. Should digital currency be treated like money?
3. Which activities relating to digital currency should be designated? Note that a person who conducts an activity which is a 'designated service' is required to be regulated by AUSTRAC.
4. What form should that regulation take – should it be like banks, remitters, brokers?

## Definition

The definition of digital currency is

***digital currency*** means:

(a) a digital representation of value that:

(i) functions as a medium of exchange, a store of economic value, or a unit of account; and

(ii) is not issued by or under the authority of a government body; and

(iii) is interchangeable with money (including through the crediting of an account) and may be used as consideration for the supply of goods or services; and

(iv) is generally available to members of the public without any restriction on its use as consideration; or

(b) a means of exchange or digital process or crediting declared to be digital currency by the AML/CTF Rules;

but does not include any right or thing that, under the AML/CTF Rules, is taken not to be digital currency for the purposes of this Act.

The definition has been constructed to ensure that it captures things which are like money, but do not have all the functions of money (as those would be money) and to not capture assets which are not intended for use as consideration or to be interchangeable with money. This also distinguishes digital currency from tokens which may have features of other products, like securities. Instead securities tokens are treated like securities as they fall within our other general definitions.

The definition does not mention blockchain or cryptography to ensure that it is not tied to any particular technology.

## Services

In relation to digital currency, the Australian AML/CTF Act requires a person who, in the course of carrying on a digital currency exchange business, exchanges digital currency for money, or money for digital currency, to comply with the requirements of the AML/CTF Act.
This effectively only includes people who operate exchanges where transactions are conducted from fiat currency to digital currency, and people who operate digital currency automatic teller machines (such as bitcoin ATMs which allow a person to retrieve fiat currency by expending bitcoins in their wallet).

At the time the law was changed, there was a discussion regarding digital currency wallets. A view was taken that if the digital wallet provider simply provides a key management system, that cryptographic key management system should be outside the scope of the Act.

Also, where an exchange only facilitated the exchange of digital currency for digital currency, these were not caught by the legislation as it is designed to monitor and manage the movement of money and regulates the times when money is placed in, or taken out of the regulated environment (like taking cash from an ATM).

## Regime

The regime mirrors the regime for remittance transactions. This imposes additional requirements on digital currency exchange providers (and remitters) which are not imposed on banks under the AML/CTF Act, but are under other licensing regimes which they must comply with, including, in particular, the prudential regulatory regime. This includes things such as lodging an AML/CTF compliance program with the regulator, providing information regarding the organisational structure and allowing the regulator to have greater scrutiny over its broader governance.

## Improvements

There are some parts which could be improved. For instance, the regulations are prescriptive as to the type of reporting information which must be provided. This information is very bitcoin specific and may not be possible with other digital currencies. Again a more flexible, less tech-specific reporting regime may be more appropriate.

There is also a question around whether tokens other than digital currencies should have been included or whether they are already sufficiently captured under other regulations.

Act https://www.legislation.gov.au/Details/C2018C00295
Rules https://www.legislation.gov.au/Details/F2018C00244

# Appendix 4 - FINANCIAL CRIMES ENFORCEMENT NETWORK Guidance[15]

The FINCEN definition of an FI's is focused rather on the activity and not the tech.

*"In general, an inquiry into whether a person (individual or business) fits into one of several sub-categories of "financial institution" is focused on what activities that person performs (e.g. money transmission, foreign exchange, banking, etc.), and is not focused on which technologies are used to perform those activities."*

The current FINCEN guidance then turns to the question of which persons dealing with convertible virtual currencies fit within the money transmitter sub-category of BSA (Bank Secrecy Act) regulated financial institutions.

They came up with 3 categories - **Exchangers, Users, and Administrators.**

The guidance creates and defines three categories of persons: administrators, exchangers, and users. It explains why only administrators and exchangers qualify as money transmitters and are therefore subject to BSA obligations.

## Exchangers

With respect to exchangers, the Guidance reads: "An exchanger is a person engaged as a business in the exchange of virtual currency for real currency, funds, or other virtual currency". An … exchanger that (1) accepts and transmits a convertible virtual currency or (2) buys or sells convertible virtual currency for any reason is a money transmitter under FinCEN's regulations

1. You are an "exchanger" only if you run a business. The definition of "exchanger" requires that one be "engaged as a business in the exchange of virtual currency" so it does not include individuals buying or selling bitcoin as a personal investment or for other personal purposes.
2. You are only a "money transmitter" if you are an "exchanger" that "accepts and transmits" or "buys and sells" bitcoins or another virtual currency. "Accepts and transmits" means you take bitcoin from one customer and send it (presumably on their behalf) to another person or persons. Note that you have to do both, accept and transmit. So if you only accept bitcoin from someone (possibly in return for a good or service) then you are not a money transmitter. Similarly, if all you do is give bitcoin to someone else (again in return for a good or service, or perhaps as a gift) then you are also not a money transmitter. That said, you are a money transmitter if you are an exchanger who "buys and sells . . . for any reason." So, providing a brokerage or exchange service for customers qualifies as money transmission.
3. If you are a money transmitter, then you must comply with the obligations that the BSA and FinCEN place on those types of businesses. Those obligations are the same as those with which companies like PayPal and Western Union have had to comply for decades. They are, generally, three-fold: (1) register with FinCEN; (2) have a risk-based know-your-customer (KYC) and anti-money-laundering (AML) program; and (3) file suspicious activity (SARs).

## Users

[15] See COINCENTRE May 2007 "The Bank Secrecy Act, Cryptocurrencies, and New Tokens: What is Known and What Remains Ambiguous"

A user is a person that obtains virtual currency to purchase goods or services. And there is a clear statement that users are not money transmitters under the relevant regulations and have no FinCEN compliance obligations. A user of virtual currency is not an MSB under FinCEN's regulations and therefore is not subject to MSB registration, reporting, and recordkeeping regulations

### Administrators

Only relevant in the case of a centralised protocol, that is one of which can issue and redeem tokens. Decentralised networks cannot redeem an issued token.

*Implications*

1. There are no administrators in the decentralized cryptocurrency/ token space. So the key question for our purposes will always be: who qualifies as an exchanger and who qualifies as a user?
2. Exchangers are persons in the business of running an exchange service who either "accept and transmit" bitcoins or similar tokens or "buy or sell" bitcoins or similar tokens. These persons will be treated as money transmitters and must register, collect information about their users, and do other BSA-related compliance.
3. Users are persons who obtain bitcoins or tokens solely to purchase goods or services. These persons do not qualify as money transmitters, but it is unclear if the category is intended to cover all persons using bitcoins or tokens who are not exchangers, or if the category is strictly limited to individuals purchasing goods or services with bitcoins or other tokens.
4. If users is narrowly interpreted, then there are a host of other persons, including software developers and investors, who are not exchangers as defined and also not users as defined, and the guidance is silent regarding their status as money transmitters.

### Non-custodial exchanges

A non-custodial exchange is probably not an exchanger or a money transmitter. If, like Craigslist or any other online classified advertising service, the business merely helps individual buyers and sellers find and communicate with each other, then it is never "accepting and transmitting" tokens or bitcoins for its users, nor is it "buying or selling" tokens or bitcoins. It may be commonly understood as an exchange because it deals in exchange-related information (e.g. order-books, offers, acceptances, communications between buyers and sellers) but it, as a company, is never doing the actual currency conversion or handling the actual tokens or money; that all happens peer-to-peer.

Another way to characterize what these companies do is: development of a web-based software tool (e.g. a website) that facilitates peer-to-peer exchange. FinCEN's Software and Investment Ruling (see below) describes mere software development and distribution as outside the scope of BSA regulation.

Additionally, the individual buyers and sellers, assuming they are merely opening or closing their own personal investment positions, will likely be found to be users as per the Software and Investment Ruling. This will almost certainly be the case if both the

buyer and seller are merely exchanging bitcoin to and from their personal software wallets (i.e. a truly peer-to-peer transaction without a custodial intermediary involved). If, however, while negotiating a sale of Bitcoin either the buyer or seller knows that they are helping their counterparty move money into or out of a custodial exchange for particular purposes (especially illicit purposes) then they may be treated as an exchanger.

### Wallet Providers

A non-custodial wallet developer is likely not an exchanger or a money transmitter. This company does not buy and sell tokens or bitcoins, but they do help individuals hold and transmit their own tokens or bitcoin by building and supporting software tools (e.g. wallet apps). The operative question here is, again, whether the developer of the software ever "accepts and transmits" the bitcoin or tokens. The Software and Investment Ruling (see below) indicates that FinCEN would not treat this activity as money transmission because the wallet developer is engaging only in the "production and distribution of software."

*Hypothetical*

Imagine that IAN is paying a merchant for shoes using bitcoin. Imagine that IAN was not using a custodial wallet provider to hold his bitcoins and initiate transactions. Imagine, instead, that he was initiating the transaction himself by running non-custodial wallet software on a smartphone he carries with him. In this case, IAN, himself, is sending bitcoins to an address controlled by Canary Wharf Shoes Ltd, and IAN is obligated to pay those bitcoins to the merchant. The developer who wrote the software that IAN runs on his phone has not been ordered to do anything with respect to this payment, and—indeed—they are likely unaware of the payment and have no power or obligation to execute a transmittal order (see Fincen re. exchanges and transmittal orders), IAN has that power.

The company that developed the software IAN uses is not money transmitter. The developers simply built the tools that allowed IAN to compose and broadcast bitcoin transaction messages on the peer-to-peer network. He does this using his phone all by himself and without an intermediary acting on her behalf.

### 2014 Software and Investment Administrative Ruling

In 2014, FinCEN, in an administrative ruling (the Software and Investment Ruling), clarified how software development relates to their Guidance:

*"The production and distribution of software, in and of itself, does not constitute acceptance and transmission of value, even if the purpose of the software is to facilitate the sale of virtual currency."*

*T*his interpretation makes it clear that software development alone cannot rise to the level of money transmission. It's unclear whether we would call developers users but the result is the same; they are not subject to BSA regulation.

The Software and Investment Ruling also seemingly expanded the category of user with respect to investment activities:

When the Company invests in a convertible virtual currency for its own account, and when it realizes the value of its investment, it is acting as a user of that convertible

virtual currency within the meaning of the guidance. As a result, to the extent that the Company limits its activities strictly to investing in virtual currency for its own account, it is not acting as a money transmitter and is not an MSB under FinCEN's regulations.

However, in seeming contradiction to the above, in May 2015 FinCEN reached a out of court settlement with Ripple Labs, a company that builds products that utilise a decentralised cryptocurrency known as XRP.

The statement of facts and violations read that Ripple violated the Bank Secrecy act, whereby Ripple engaged in transactions where it sold XRP for Fiat, given that it was not registered with FinCEN as an MSB.

The violation addressed by the settlement was apparently a sale of XRP by Ripple Labs. Ripple Labs was selling tokens (XRP) that it, the company, owned. Ripple Labs was not an intermediary selling on behalf of someone else. This could indicate that merely selling tokens on your own account qualifies you as an exchange, seemingly contradicting the interpretation in the Software and Investment Ruling.

https://www.fincen.gov/news/news-releases/fincen-fines-ripple-labs-inc-first-civil-enforcement-action- against-virtual

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