

AN EXAMINATION OF THE CHALLENGES POSED BY CRYPTOCURRENCIES TO AML/CTF REGULATION

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Introduction

This paper examines the challenges posed by cryptocurrencies to anti-money laundering ('AML') and counter-terrorism financing ('CTF') regulation. Cryptocurrencies can broadly be understood as types of virtual currency, typically supported by blockchain technology,¹ which are used as peer-to-peer ('P2P') alternatives to legal tender, and can be converted to and from legal tender.² Although cryptocurrencies have many legitimate uses,³ they have also emerged as a hotbed for criminal activity.⁴ This includes money laundering, which is a method of disguising criminal proceeds by 'layering' them in a financial system via a series of transactions before returning them, 'clean', to their owner,⁵ and terrorism financing, which is the generation and transfer of funds for terrorist groups.⁶ I highlight three key cryptocurrency features which challenge AML/CTF regulation. Namely, they: do not demand a central third party for transactions, grant users privacy, and are intrinsically cross-border. Further, I question how persistent these fundamental challenges are: can laws easily adapt, or is a more fundamental system change required?

I. Lack of Central Third Party and Privacy

Firstly, because crypto-currencies are built on a blockchain, which is a decentralised and distributed ledger maintained by a P2P network, transactions can be made without a central and trusted third party.⁷ This contrasts with fiat currencies, where third-party intermediaries are required to guarantee the security of

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¹ European Parliament, 2018. *Cryptocurrencies And Blockchain: Legal Context And Implications For Financial Crime, Money Laundering And Tax Evasion*. p.24.

² *Ibid.*, p.23.

³ Medal, A., 2017. *10 Incredible Uses For Cryptocurrency And Blockchain You Probably Haven't Thought Of*. [online] Entrepreneur. Available at: <<https://www.entrepreneur.com/article/305859>> [Accessed 8 April 2020].

⁴ European Parliament, 2018. *Cryptocurrencies And Blockchain: Legal Context And Implications For Financial Crime, Money Laundering And Tax Evasion*. p.9.

⁵ United Nations: Office on Drugs and Crime. 2020. *Money-Laundering Cycle*. [online] Available at: <<https://www.unodc.org/unodc/en/money-laundering/laundrycycle.html>> [Accessed 8 April 2020].

⁶ United Nations: Office of Counter-Terrorism. 2020. [online] Available at: <<https://www.un.org/counterterrorism/countering-financing-of-terrorism>> [Accessed 7 April 2020].

⁷ Auffenberg, L., 2019. Crypto Currencies as a New Challenge to Anti-Money Laundering Regulation and the Know-Your-Customer-Principle. *Frankfurt School Blockchain Center*, [online] p.12. Available at: <<https://medium.com/@fsblockchain/crypto-currencies-as-a-new-challenge-to-anti-money-laundering-regulation-and-the-e6429461c13e>> [Accessed 5 April 2020].

customers' accounts and transactions.⁸ AML/CTF regulation has traditionally focussed on these fiat currency intermediaries.⁹ In the EU, for example, the Fourth AML Directive ('AMLD4')¹⁰ obliged entities including banks, insurance companies, auditors, and notaries, to implement due diligence procedures when entering into business relationships, including by identifying and verifying the identity of clients (known as the 'Know Your Customer' or 'KYC' requirement), monitoring transactions, and reporting suspicious transactions.¹¹ Cryptocurrencies clearly practically and theoretically challenge such a model, because the fiat currency intermediaries relied upon do not oversee cryptocurrency transactions, precluding immediate enforcement in that sphere, and because there is no clear central party in cryptocurrency transactions on which to place the regulatory burden. This challenge appears unsurprising; laws are based on human systems and behaviours, and eschewing central authorities in financial transactions was not generally practicable before the presentation of the blockchain design in 2008.¹²

Cryptocurrencies also allow users to conceal their identity, because coins are sent and received via a 'public address', which is a combination of characters not linked publically to each owner.¹³ The precise level of privacy depends on the cryptocurrency. Bitcoin users are pseudo-anonymous, since their public addresses are displayed on the public Bitcoin blockchain.¹⁴ However, more privacy-focussed cryptocurrencies aim for full user anonymity.¹⁵ With Monero, for example, a number of randomly generated addresses appear on the blockchain alongside the public address of the true sender, who is thus impossible to identify. Coins are also sent to a one-time randomly generated 'stealth address' that appears on the blockchain instead of the recipient's long-term public address.¹⁶ As highlighted by Campell-Verduyn, the privacy afforded by cryptocurrencies clashes with AML/CTF efforts which are "centred on the identification of individuals,"¹⁷ and particularly "frustrate" the KYC requirement. Put bluntly, financial professionals "can't monitor transactions

⁸ Marella, V., Upreti, B., Merikivi, J. and Tuunainen, V., 2020. Understanding the creation of trust in cryptocurrencies: the case of Bitcoin. *Electronic Markets*, [online] Available at: <<https://link-springer-com.vu-nl.idm.oclc.org/article/10.1007/s12525-019-00392-5#citeas>> [Accessed 8 April 2020].

⁹ Campbell-Verduyn, M., 2018. Bitcoin, crypto-coins, and global anti-money laundering governance. *Crime, Law and Social Change*, [online] 69(2), p.4. Available at: <https://www.researchgate.net/publication/322596368_Bitcoin_crypto-coins_and_global_anti-money_laundering_governance> [Accessed 7 April 2020].

¹⁰ Council Directive 2015/849 of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, amending Regulation (EU) No 648/2012 of the European Parliament and of the Council, and repealing Directive 2005/60/EC of the European Parliament and of the Council and Commission Directive 2006/70/EC, OJ L 141, 5.6.2015.

¹¹ European Commission - European Commission. 2020. Anti-Money Laundering And Counter Terrorist Financing. [online] Available at: <https://ec.europa.eu/info/business-economy-euro/banking-and-finance/financial-supervision-and-risk-management/anti-money-laundering-and-counter-terrorist-financing_en> [Accessed 6 April 2020].

¹² Iansiti, M. and Lakhani, K., 2020. *The Truth About Blockchain*. [online] Harvard Business Review. Available at: <<https://hbr.org/2017/01/the-truth-about-blockchain>> [Accessed 6 April 2020].

¹³ Auffenberg, L., 2019. Crypto Currencies as a New Challenge to Anti-Money Laundering Regulation and the Know-Your-Customer-Principle. *Frankfurt School Blockchain Center*, [online] p.2. Available at: <<https://medium.com/@fsblockchain/crypto-currencies-as-a-new-challenge-to-anti-money-laundering-regulation-and-the-e6429461c13e>> [Accessed 5 April 2020].

¹⁴ Ibid., p.3.

¹⁵ Ibid., p.4.

¹⁶ Ibid.

¹⁷ Campbell-Verduyn, M., 2018. Bitcoin, crypto-coins, and global anti-money laundering governance. *Crime, Law and Social Change*, [online] 69(2), p.5. Available at: <https://www.researchgate.net/publication/322596368_Bitcoin_crypto-coins_and_global_anti-money_laundering_governance> [Accessed 7 April 2020].

if [they] don't know who the parties are."¹⁸ Direct surveillance by authorities is also precluded: whilst surveillance of pseudonymous cryptocurrencies is to an extent possible with sophisticated techniques,¹⁹ these possibilities quickly diminish with anonymous users.²⁰

In an attempt to address the challenges posed by cryptocurrencies, amendments to AMLD4, commonly referred to as the 5th AML Directive ('AMLD5'),²¹ extended the definition of entities obliged under AMLD4 to include entities offering exchange services between virtual and fiat currencies, and custodian wallet providers, which offer services to safeguard customers' private keys.²² The logic here is that, since such entities hold an intermediary position between the fiat and cryptocurrency spheres, they become the new "gate-keepers," comparable to the traditional financial intermediaries relied upon in a purely fiat currency context.²³ As the entities are obliged to implement due diligence measures, the anonymity previously associated with their services is removed,²⁴ and the regulatory gap regarding cryptocurrencies is, to some extent, closed.

However, a significant issue with AMLD5's approach is that users - including those seeking to launder money or obscure the financing of terrorism - can merely avoid using custodian wallet providers and exchange services. For example, it is possible to use a non-custodial rather than a custodial wallet (i.e. one in which you safeguard your own private key)²⁵ and cryptocurrencies can be quickly and directly exchanged for fiat currency via any willing purchaser.²⁶ Moreover, exchange services are only relevant for users so long as cryptocurrencies are not generally accepted as a means of payment, which may not always be the case.²⁷

It thus appears that the cryptocurrency features identified as challenging AMLD4 - namely, the lack of central intermediary, and the privacy of users - remain problematic with regards to AMLD5. Although certain cryptocurrency entities are brought into the regulatory sphere, because these are not central to transactions, widespread monitoring is not viable. Further, although cryptocurrency users can ostensibly be de-anonymised

¹⁸ Ibid., quoting Deloitte principal Fred Curry.

¹⁹ European Parliament, 2018. *Cryptocurrencies And Blockchain: Legal Context And Implications For Financial Crime, Money Laundering And Tax Evasion*. P.33.

²⁰ Auffmanberg, L., 2019. Crypto Currencies as a New Challenge to Anti-Money Laundering Regulation and the Know-Your-Customer-Principle. *Frankfurt School Blockchain Center*, [online] p.4. Available at: <<https://medium.com/@fsblockchain/crypto-currencies-as-a-new-challenge-to-anti-money-laundering-regulation-and-the-e6429461c13e>> [Accessed 5 April 2020].

²¹ Council Directive 2018/843 of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, and amending Directives 2009/138/EC and 2013/36/EU, OJ L 156, 19.6.2018.

²² Ibid., Article 1(c).

²³ Node, S., 2018. Computational Law Blockchain Festival, Discuss Track Symposium Report (Part1 of 2). *Stanford Journal of Blockchain Law & Policy*, 1.1, p.110.

²⁴ European Parliament, 2018. *Cryptocurrencies And Blockchain: Legal Context And Implications For Financial Crime, Money Laundering And Tax Evasion*. P.79.

²⁵ Medium. 2020. *Custodial Vs Non-Custodial Wallets: Benefits Of Light Wallets*. [online] Available at: <<https://medium.com/guarda/%EF%B8%8Fcustodial-vs-non-custodial-wallet-s-%EF%B8%8F-benefits-of-light-wallets-87cf701054d1>> [Accessed 6 April 2020].

²⁶ Auffmanberg, L., 2019. Crypto Currencies as a New Challenge to Anti-Money Laundering Regulation and the Know-Your-Customer-Principle. *Frankfurt School Blockchain Center*, [online] p.13. Available at: <<https://medium.com/@fsblockchain/crypto-currencies-as-a-new-challenge-to-anti-money-laundering-regulation-and-the-e6429461c13e>> [Accessed 5 April 2020].

²⁷ Ibid., p.13.

when interacting with the newly obligated entities, anonymity remains an issue in the “whole world” of cryptocurrency use beyond them.²⁸

This has led some critics to argue that, in order to successfully combat money laundering and terrorist financing via cryptocurrencies, it will be necessary to move beyond a regulatory paradigm that is focussed on intermediaries.²⁹ What precisely this shift would entail is not clear. Suggestions include: focussing regulatory efforts on other cryptocurrency participants, such as miners, developers, or users themselves;³⁰ introducing blacklists of public addresses involved in criminal transactions, or whitelists whereby legitimate users self verify;³¹ and coding users’ identities into the cryptocurrency blockchain itself³² - a strategy which aligns nicely with Lessig’s contention that human action can also be constrained by architecture.³³

Interestingly, these suggestions, like the EU’s current regulations, largely remain focussed on de-anonymising cryptocurrency transactions, and imposing certain reporting requirements on involved parties. AML/CTF regulatory methods thus appear to always challenge the two features which make cryptocurrencies distinctly attractive for legitimate users: the avoidance of the nuisances associated with bureaucracy and administrative control,³⁴ and financial privacy.³⁵ This points to a deep seated incongruence between cryptocurrencies and the regulated world.

II. Cross-border Nature

The intrinsically cross-border nature of cryptocurrencies, which are “typically online and therefore not limited to national jurisdiction,”³⁶ challenges the general system of regulation and enforcement by nation states. This system is based upon the logic that nation states should be able to implement rules that specifically suit them

²⁸ European Parliament, 2018. *Cryptocurrencies And Blockchain: Legal Context And Implications For Financial Crime, Money Laundering And Tax Evasion*. P.80.

²⁹ Auffenberg, L., 2019. Crypto Currencies as a New Challenge to Anti-Money Laundering Regulation and the Know-Your-Customer-Principle. *Frankfurt School Blockchain Center*, [online] pp.15-16. Available at: <<https://medium.com/@fsblockchain/crypto-currencies-as-a-new-challenge-to-anti-money-laundering-regulation-and-the-e6429461c13e>> [Accessed 5 April 2020]; Rigsby, J., 2020. Virtual Currency, Blockchain Technology, and EU Law: The “Next Internet” in AML/CFT Regulation’s Shadow. *Lund University*, [online] p.44. Available at: <<http://lup.lub.lu.se/luur/download?func=downloadFile&recordOId=8878538&fileOId=8878539>> [Accessed 7 April 2020].

³⁰ Auffenberg, L., 2019. Crypto Currencies as a New Challenge to Anti-Money Laundering Regulation and the Know-Your-Customer-Principle. *Frankfurt School Blockchain Center*, [online] p. 14. Available at: <<https://medium.com/@fsblockchain/crypto-currencies-as-a-new-challenge-to-anti-money-laundering-regulation-and-the-e6429461c13e>> [Accessed 5 April 2020].

³¹ Ibid.

³² Rigsby, J., 2020. Virtual Currency, Blockchain Technology, and EU Law: The “Next Internet” in AML/CFT Regulation’s Shadow. *Lund University*, [online] p.60. Available at: <<http://lup.lub.lu.se/luur/download?func=downloadFile&recordOId=8878538&fileOId=8878539>> [Accessed 7 April 2020].

³³ Lessig, L., 1998. The New Chicago School. *The Journal of Legal Studies*, 27(S2), pp.661-691.

³⁴ Iansiti, M. and Lakhani, K., 2020. *The Truth About Blockchain*. [online] Harvard Business Review. Available at: <<https://hbr.org/2017/01/the-truth-about-blockchain>> [Accessed 6 April 2020].

³⁵ Node, S., 2018. Computational Law Blockchain Festival, Discuss Track Symposium Report (Part1 of 2). *Stanford Journal of Blockchain Law & Policy*, 1.1, p.110.

³⁶ Bank for International Settlements Committee on Payments and Market Infrastructures, 2015. [online] p.12. Available at: <<https://www.bis.org/cpmi/publ/d137.pdf>> [Accessed 8 April 2020].

and their citizens. Broadly, it is difficult for regulators to assert national jurisdiction over specific cryptocurrency systems or players.³⁷ A key issue is that these actors, such as the crypto-exchanges that EU Member States must target under AMLD5, can simply choose to locate themselves in jurisdictions with lax AML/CTF controls.³⁸ This is not helped by a patchwork of global regulations, partly facilitated both by ‘race to the top’ and ‘race to the bottom’ attitudes whereby nations compete to implement the most lax, or indeed stringent, cryptocurrency rules, respectively.³⁹ Such a phenomenon is certainly not limited to the cryptocurrency sphere. One could note, for example, the manner in which sweatshop operators relocate to avoid stringent labour laws.⁴⁰ However, the anonymised, P2P, and intangible digital nature of cryptocurrencies, which are not tied to any particular location, and can be almost instantaneously transacted, means they are particularly hard for regulators to reach.⁴¹

It thus appears that in order to adequately regulate money laundering and terrorist financing, rules must be adopted at a sufficiently international, or indeed global, level.⁴² The Financial Action Task Force (‘FATF’) is a key player in this regard. It is an international governmental organisation which sets global AML standards. These account for cryptocurrencies, and have influenced, for example, the EU’s approach in AMLD5.⁴³ Yet, the adequate implementation of such standards by nation states is generally slow and incremental,⁴⁴ and a varied global patchwork of regulation remains.⁴⁵ In simple terms, nation states’ legal sovereignty therefore appears to be acting as a barrier to adequate AML/CTF regulation in the cryptocurrency sphere. This raises the question of whether human governance systems could hypothetically adapt to address this. Some academics have raised the possibility of adopting ‘non-state’ or ‘a-national’ laws, detached from state

³⁷ International Monetary Fund, n.d. *Virtual Currencies And Beyond: Initial Considerations*. [online] p.25. Available at: <<https://www.imf.org/external/pubs/ft/sdn/2016/sdn1603.pdf>> [Accessed 8 April 2020].

³⁸ European Parliament, 2018. *Cryptocurrencies And Blockchain: Legal Context And Implications For Financial Crime, Money Laundering And Tax Evasion*. P.54.

³⁹ Campbell-Verduyn, M., 2018. Bitcoin, crypto-coins, and global anti-money laundering governance. *Crime, Law and Social Change*, [online] 69(2), p.10. Available at: <https://www.researchgate.net/publication/322596368_Bitcoin_crypto-coins_and_global_anti-money_laundering_governance> [Accessed 7 April 2020].

⁴⁰ Bair, J., Dickson, M. and Miller, D., 2016. *Workers' Rights And Labor Compliance In Global Supply Chains*. New York: Routledge, p.277.

⁴¹ Financial Action Task Force, 2015. *Guidance For A Risk Based Approach: Virtual Currencies*. p.32.

⁴² Bank for International Settlements Committee on Payments and Market Infrastructures, 2015. [online] p.12. Available at: <<https://www.bis.org/cpmi/publ/d137.pdf>> [Accessed 8 April 2020]; European Parliament, 2018. *Cryptocurrencies And Blockchain: Legal Context And Implications For Financial Crime, Money Laundering And Tax Evasion*. P.54.

⁴³ European Commission - European Commission. 2020. Anti-Money Laundering And Counter Terrorist Financing. [online] Available at: <https://ec.europa.eu/info/business-economy-euro/banking-and-finance/financial-supervision-and-risk-management/anti-money-laundering-and-counter-terrorist-financing_en> [Accessed 6 April 2020].

⁴⁴ Campbell-Verduyn, M., 2018. Bitcoin, crypto-coins, and global anti-money laundering governance. *Crime, Law and Social Change*, [online] 69(2), p.13. Available at: <https://www.researchgate.net/publication/322596368_Bitcoin_crypto-coins_and_global_anti-money_laundering_governance> [Accessed 7 April 2020].

⁴⁵ Fatf-gafi.org. 2019. *Documents - Financial Action Task Force (FATF)*. [online] Available at: <<https://www.fatf-gafi.org/publications/high-risk-and-other-monitored-jurisdictions/documents/fatf-compliance-october-2019.html>> [Accessed 8 April 2020].

jurisdictions.⁴⁶ The extent to which this is viable can be questioned for a number of reasons⁴⁷, yet it is interesting to consider its potential usefulness with regards to cryptocurrency regulation.

III. Conclusion

Overall, cryptocurrencies can be seen to significantly challenge AML/CTF regulation in a way that does not appear immediately solvable within the current regulatory paradigm. The focus on the monitoring of transactions via an intermediary is undermined, since the actors which could potentially be relied upon in the cryptocurrency sphere, such as cryptocurrency exchanges, clearly lack sufficient oversight. Further, identification efforts appear futile in the face of user privacy, particularly in light of cryptocurrencies that grant full anonymity. Finally, cryptocurrencies' intrinsically borderless nature ideally demand borderless regulatory solutions, which seem out of reach within a system based on state sovereignty.

⁴⁶ Nottingham.ac.uk. 2019. *What Is A-National Law? And Why Does It Matter?* - Orsolya Toth - The University Of Nottingham. [online] Available at: <<https://www.nottingham.ac.uk/research/groups/commercial-law-centre/commerce-law-and-policy/what-is-a-national-law.aspx>> [Accessed 8 April 2020].

⁴⁷ Ibid.