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BlockchainNZ submission – Inquiry into the current and future nature, impact, and risks of crypto-currencies

Introduction

1. BlockchainNZ is a member of the New Zealand Tech Alliance (**NZTech**). NZTech is a group of independent technology associations from across New Zealand that work together with a common purpose to connect, promote and advance technology ecosystems and to help the New Zealand economy grow to create a prosperous digital nation.¹
2. BlockchainNZ itself is an association of organisations and individuals that represent the rapidly emerging business sectors being built using blockchain technology. These business sectors encompass IT, trade and supply chains, financial services, and the public sector, to name a few.² BlockchainNZ has taken a key role in growing our country's capability to maximise the opportunities enabled by blockchain technology and address any challenges.³
3. We present this submission to the Finance and Expenditure Committee (**Committee**) in respect of the Committee's "inquiry into the current and future nature, impact, and risks of crypto-currencies" (**Inquiry**).⁴ This submission is in response to the terms of reference for the Inquiry (**ToR**). Headings in this submission pertain to the particular issue raised in the ToR.

Support of the submission made by the Digital Asset Industry Response Group Aotearoa NZ to the Committee

4. We support the submission made by the Digital Asset Industry Response Group Aotearoa NZ⁵ to the Committee in respect of the Inquiry (**DAIRGANZ Submission**).
5. Where appropriate, we cross-refer to parts of the DAIRGANZ Submission in our submission.

¹ <https://nztech.org.nz/about/>.

² For a list of current members of BlockchainNZ, see <https://blockchain.org.nz/about/our-members/>.

³ <https://blockchain.org.nz/about/>.

⁴ https://www.parliament.nz/en/pb/sc/make-a-submission/document/53SCFE_SCF_INQ_111968/inquiry-into-the-current-and-future-nature-impact-and.

⁵ This group comprises of Centrality, Easy Crypto and Techemy, with contributions from Adam Dodds (Director, Centrapass), Aaron McDonald (CEO, Centrality), Janine Grainger (CEO, Easy Crypto), Matt Paget (COO, Techemy), Andy Higgs (GM Strategic Partnerships, Centrality), Campbell Pentney (Special Counsel, Bell Gully), Tim Doyle (Director, Evans Doyle) and the Chair of BlockchainNZ, Bryan Ventura (Senior Associate, MinterEllisonRuddWatts).

To inquire into, and establish the nature and benefits of crypto-currencies: to establish how crypto-currencies are created and traded

6. Crypto-currencies have evolved in the last twelve years from a nascent technology into an asset class with a market capitalisation of approximately US\$2.09 trillion, as of 29 August 2021.⁶ Millennials⁷ and Generation Z⁸ appear to be the main adopters of crypto-currencies as a form of investment and a form of payment for goods and services. It would be natural to expect the adoption of crypto-currencies to increase as more Generation Z members begin working and investing. Crypto-currencies appear to be one natural partner to e-commerce, which is growing more important to the economy by the day.
7. Bitcoin is being seen as “digital gold”, with the potential to become even more useful than gold as a store of value. Large institutions⁹ and fund managers¹⁰ are allocating at least a small portion of their portfolios to Bitcoin for various reasons, including as a hedge against inflation caused by Covid-19 related fiscal and monetary stimulus, and as an investment. More conventional financial products like derivatives and exchange-traded funds¹¹ are being built around the world to provide institutional and everyday investors an indirect economic exposure to Bitcoin, and to a lesser degree, other crypto-currencies. Bitcoin by itself has the potential to create new industries in technology, financial services, borrowing and lending, insurance, etc, and evolve existing ones. The “digital gold” thesis is predicated on, among other things, the strength of the Bitcoin protocol, which requires computing power for protection. To date, the Bitcoin protocol has never been hacked or compromised.
8. We also refer to the DAIRGANZ Submission’s response to this question, which succinctly summarises how crypto-currencies are created and traded.

To inquire into, and establish the nature and benefits of crypto-currencies: to understand the environmental impact of ‘mining’ crypto-currencies

9. “Mining” crypto-currencies is a broad concept and is predicated on the consensus mechanism of a particular blockchain protocol. Not all blockchains require “mining” to operate.
10. Older blockchain protocols like Bitcoin use “proof of work” consensus, a process which rewards “miners” of new blocks with newly minted Bitcoin. There are public sources of information on the amount of energy consumed by the Bitcoin protocol, however, there appear to be studies which suggest that between 39% to 73% of the energy consumed is from carbon neutral sources, with sizeable Bitcoin mining infrastructure using hydro power.¹² The environmental impact of maintaining the Bitcoin protocol is well known to the Bitcoin community worldwide, and anecdotally there appears to be a general desire and recent action to use more carbon neutral energy sources.¹³
11. Newer blockchain protocols use alternative forms of consensus, including “proof of stake”. These new forms of consensus are much less energy intensive than proof of work consensus.¹⁴
12. We also refer to the DAIRGANZ Submission’s response to this question, which succinctly summarises the environmental impact of ‘mining’ cryptocurrencies.

⁶ <https://coinmarketcap.com/>.

⁷ <https://finance.yahoo.com/news/millennials-own-more-crypto-other-210017141.html>.

⁸ <https://www.cnn.com/2021/06/22/gen-z-investing-in-cryptocurrency-btc-eth-and-meme-stocks-amc-gme.html>.

⁹ <https://www.bloomberg.com/news/articles/2021-01-26/harvard-and-yale-endowments-among-those-reportedly-buying-crypto>.

¹⁰ <https://www.forbes.com/sites/billybambrough/2020/11/12/a-legendary-hedge-fund-billionaire-just-flipped-to-bitcoin-calling-it-better-than-gold/?sh=5743825c222f>.

¹¹ <https://www.purposeinvest.com/funds/purpose-bitcoin-etf>.

¹² <https://hbr.org/2021/05/how-much-energy-does-bitcoin-actually-consume>.

¹³ <https://www.forbes.com/advisor/investing/bitcoins-energy-usage-explained/>.

¹⁴ <https://www.nbcnews.com/tech/tech-news/cryptocurrency-goes-green-proof-stake-offer-solution-energy-concerns-rcna1030>.

To inquire into, and establish the nature and benefits of crypto-currencies: to identify risks to users and traders of crypto-currencies

13. The crypto-currency market comprises of retail and institutional investors all over the world. These markets are operated by virtual asset service providers (**VASPs**), 24 hours a day, 7 days a week, 365 days a year.
14. VASPs function as gatekeepers to the crypto-currency market, by enabling users to exchange fiat currency or crypto-currencies for other crypto-currencies, and vice versa. Due to the borderless user base of VASPs and the uninterrupted trading window for investors, the price of crypto-currencies can be more volatile than other asset classes (which are only traded during limited trading windows). Users tend to participate in crypto-currency markets on a “buyer beware basis”. *We recommend that the Committee work with the New Zealand crypto-currency industry to shape industry standards for educating users of the risks of buying or investing in crypto-currencies, including perhaps, by requiring New Zealand VASPs to disclose “risk warnings” to their users.*
15. VASPs take custody of users’ crypto-currencies using internet-based crypto-currency wallets (i.e. “hot wallets”) and non-internet based crypto-currency wallets (i.e. “cold storage wallets”). There have been many instances of VASPs being hacked around the world¹⁵, including Cryptopia in New Zealand.¹⁶ That said, VASPs have developed industry standards for the custody of crypto-currencies, in order to protect users’ assets from hacking or theft.¹⁷ *We recommend that the Committee work with the New Zealand crypto-currency industry to shape industry standards for the custody of crypto-currencies by VASPs.* We note the US has officially permitted certain US banks to take custody of crypto-currencies;¹⁸ this is yet another endorsement by the US government of crypto-currencies as an asset class.
16. We note the recent overseas hack of the Poly Network of US\$600 million worth of crypto-currencies, resulted in the bounty being returned.¹⁹ This was largely made possible by the inherent visibility and traceability of crypto-currencies within blockchain protocols, as well as the work of blockchain analytic companies like Elliptic²⁰ and Chainalysis²¹, who work with VASPs and law enforcement to trace the movement of illicit or stolen crypto-currencies across blockchain addresses.

To identify the risks crypto-currencies pose to the monetary system and financial stability, including tax implications, in New Zealand

17. We refer to the DAIRGANZ Submission’s response to this question, which succinctly summarises the risks cryptocurrencies pose to the monetary system and financial stability, including tax implications, in New Zealand.
18. Any potential risks of crypto-currencies on the monetary system and financial stability are likely to be insignificant in comparison to the introduction by the Reserve Bank of New Zealand (**Reserve Bank**) of a central bank digital currency (**CBDC**) (i.e. digital currency issued by a sovereign state). Most central banks around the world are exploring the possibility of introducing their own CBDC²² and New Zealand is no exception.²³ As the Reserve Bank has identified, there are two major risks of it introducing a CBDC in New Zealand.²⁴ First, there may be a run on the banks as commercial banks may lose some deposits as households transfer deposits from the commercial banks to the CBDC. Second, because the CBDC would act as a competitor to commercial banks in terms of deposits and transactions (and thus the fees that banks generate from these transactions), this may reduce

¹⁵ <https://www.cnn.com/2021/08/11/cryptocurrency-theft-hackers-steal-600-million-in-poly-network-hack.html>.

¹⁶ <https://www.stuff.co.nz/business/112740512/cryptopia-appoints-grant-thornton-as-liquidators>.

¹⁷ <https://www.gemini.com/static/documents/guide-to-crypto-custody.pdf>.

¹⁸ <https://www2.deloitte.com/us/en/pages/audit/articles/cryptocurrency-custody-regulations-from-occ-deloitte-us.html>.

¹⁹ <https://www.cnn.com/2021/08/11/cryptocurrency-theft-hackers-steal-600-million-in-poly-network-hack.html>.

²⁰ <https://www.elliptic.co/>.

²¹ <https://www.chainalysis.com/>.

²² <https://www.bis.org/publ/bppdf/bispap107.htm> and <https://www.bis.org/publ/bppdf/bispap114.pdf>.

²³ <https://www.rbnz.govt.nz/news/2021/07/reserve-bank-confirms-consultations-key-to-the-future-of-how-new-zealanders-pay-and-save>.

²⁴ <https://www.rbnz.govt.nz/-/media/reservebank/files/publications/bulletins/2018/2018jun81-07.pdf> at pages 15-16.

commercial banks' profitability and therefore reduce the resiliency of commercial banks to economic downturns.

To establish how crypto-currencies are used by criminal organisations

19. We refer to our comment in paragraph 16 above. In accordance with the Financial Action Task Force's (FATF) recommendations for the regulation of virtual assets (i.e. crypto-currencies) and VASPs,²⁵ VASPs are captured by the Anti-Money Laundering and Countering Financing of Terrorism Act 2009 (AML/CFT Act) as reporting entities.²⁶ In summary:
- (a) VASPs generally fall under the Department of Internal Affairs' (DIA) jurisdiction although there is scope for **VASPs** to be within the Financial Markets Authority's (FMA) remit instead.
 - (b) As reporting entities under the AML/CFT Act, VASPs must comply with the AML/CFT Act in the same way that banks, other financial institutions and non-financial entities comply with the regime.
 - (c) For instance, VASPs must conduct customer due diligence on all customers, which includes verifying their customers' identity.
 - (d) VASPs must also determine the source of funds or the source of wealth of high-risk users and trusts, report suspicious activities to the New Zealand Financial Intelligence Unit and lodge prescribed transaction reports.
 - (e) As such, the risks of money laundering of terrorism financing using VASPs, have been significantly mitigated by the capture of VASPs under the AML/CFT Act.
20. We expect New Zealand supervisors of the AML/CFT Act, specifically the DIA and the FMA, to enforce the "travel rule" recommended by the FATF soon. The travel rule will have the effect of further enhancing the visibility of the identity of VASPs' users with other VASPs, which should have the flow on effect of making money laundering or terrorism financing more difficult to achieve using crypto-currencies and VASPs.
21. We also refer to the DAIRGANZ Submission's response to this question, which succinctly summarises how cryptocurrencies are used by criminal organisations.

To establish whether means exist to regulate crypto-currencies, either by sovereign states, central banks, or multi-lateral co-operation

22. We refer to our comment in paragraph 19 above. New Zealand's current regulatory framework for crypto-currencies is guided by the FATF's recommendations for the regulation of virtual assets (i.e. crypto-currencies) and VASPs – the FATF will update its guidance later this year.²⁷
23. Most crypto-currency activities in New Zealand are captured under existing laws. In summary:
- (a) The FMA requires VASPs to register on the Financial Service Providers Register in compliance with the Financial Service Providers (Registration and Dispute Resolution) Act 2008 (FSP Act).²⁸ This has the effect of bringing virtually all VASPs within the FMA's jurisdiction, where even if the underlying crypto-currencies serviced by a VASP are not "financial products" under the Financial Markets Conduct Act 2013 (FMC Act), that VASP must still comply with the fair dealing obligations of financial service providers under Part 2 of the FMC Act.
 - (b) If a VASP is servicing crypto-currencies which are financial products under the FMC Act, then that VASP will be regulated like any other financial service provider, requiring a licence, PDS,

²⁵ <https://www.fatf-gafi.org/publications/fatfrecommendations/documents/guidance-rba-virtual-assets.html>.

²⁶ <https://www.dia.govt.nz/AML-CFT-Virtual-Asset-Service-Providers>.

²⁷ <https://www.fatf-gafi.org/publications/fatfrecommendations/documents/public-consultation-guidance-vasp.html>.

²⁸ <https://www.fma.govt.nz/investors/ways-to-invest/cryptocurrencies/>.

licensed supervisor, and/or financial reporting obligations under the FMC Act, depending on the types of financial product involved.

24. Other jurisdictions have more rigorous regulatory settings for crypto-currencies and VASPs than New Zealand, including some that require VASPs to obtain a licence before operating. Anecdotally, jurisdictions operating VASP licensing regimes have been known to create bottlenecks and backlogs within their regulatory organisations. This has made the licensing process more difficult to manage for all parties, and at least some licence applicants have inevitably withdrawn their licence applications.
25. We also refer to the DAIRGANZ Submission's response to this question, which succinctly summarises whether means exist to regulate cryptocurrencies, either by sovereign states, central banks, or multi-lateral co-operation.

Recommendations and closing remarks

26. We recommend that the Committee and government agencies work with the industry before imposing any new regulatory settings for crypto-currencies and VASPs, particularly in respect of tax law, securities law, anti-money laundering and countering financing of terrorism law and financial service provider law. Further, New Zealand's regulatory settings for crypto-currencies and VASPs should be aligned with the resources and internal expertise available within New Zealand's regulators of crypto-currencies.
27. Further to the above, we recommend that the Committee and government agencies work with the Ministry of Justice (**MOJ**) and the industry, to determine if the regulatory settings for crypto-currencies and VASPs are appropriate to mitigate the financial, money laundering and terrorism financing risks associated with crypto-currencies, while still meeting the purposes of the FMC Act (which includes the purpose of promoting innovation and flexibility in the financial markets) and the purposes of the AML/CFT Act and the FSP Act. The Committee's inquiry into crypto-currencies coinciding with the MOJ's statutory review of the AML/CFT Act, is fortunate.
28. We recommend that the Committee work with the industry to shape industry standards for educating users of the risks of buying or investing in crypto-currencies, including perhaps, by requiring New Zealand VASPs to disclose prescribed "risk warnings" to their users.
29. We recommend that the Committee work with the industry to shape industry standards for the custody of crypto-currencies by VASPs.
30. We encourage the Committee to recognise the importance of balancing the importance of mitigating the risks associated with crypto-currencies and VASPs, against the importance of preserving a legal and regulatory environment which does not unduly stifle New Zealand innovation and prevent willingly compliant enterprises from operating. Achieving this balance would likely have positive flow on effects on the wider economy, such as growth in the New Zealand tax base and employment, consumer protection and an overall reduction in money laundering and terrorism financing risk.
31. We also refer to the DAIRGANZ Submission's recommendations, which we support.

Bryan Ventura (Chair), John Mackie (Deputy Chair) and Associate Professor Alex Sims, on behalf of the BlockchainNZ Executive Council