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A GUIDE TO DIGITAL TOKEN OFFERINGS

Monetary Authority of Singapore's Roadmap for Regulation of Blockchain-based Digital Tokens

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I. Introduction

1 Due to their *sui generis* nature, blockchain-based cryptocurrencies and digital tokens present unique challenges as to how such instruments should be characterised and regulated. This challenge is compounded by the fact that cryptocurrencies have their roots in libertarian ideals which are antithetical to interference from central authorities.[1] This article examines the approach that the Monetary Authority of Singapore ("MAS") takes in its application of financial regulations to activities involving blockchain-based cryptocurrencies and digital tokens, as set out in MAS's *Guide to Digital Token Offerings* ("Guide").

II. A brief history of blockchain-based digital tokens and initial coin offerings

2 Bitcoins are generally regarded as the first open source blockchain-based cryptocurrency in the world.[2] The underlying blockchain technology was originally devised for Bitcoins, but it has evolved since then.[3]

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1 Jamie Redman, "Do Satoshi's Libertarian Statements from the Past Matter Anymore?" *Bitcoin.com* (16 January 2017).

2 Arvind Matharu, *Understanding Cryptocurrencies: The Money of the Future* (Business Express Press, LLC, 2019) at pp 15 and 16.

3 Arvind Matharu, *Understanding Cryptocurrencies: The Money of the Future* (Business Express Press, LLC, 2019) at p 20.

3 Bitcoins were first introduced to the world by Satoshi Nakamoto[4] when he released a white paper titled "Bitcoin: A Peer-to-Peer Electronic Cash System" on 31 October 2008.[5] Shortly after, Nakamoto mined the genesis block and the first Bitcoins were created on 3 January 2009.[6]

4 Bitcoin is essentially a blockchain-based digital currency that is intended to function purely as a medium of exchange for goods and services. However, it was not long before other variations of blockchain and blockchain-based digital tokens were created that have functions other than as a medium of exchange. In this regard, a major turning point occurred when Vitalik Buterin and his co-founders launched Ethereum on 30 July 2015.[7]

5 Ethereum is described as an "open software platform based on blockchain technology that enables developers to build and deploy decentralized applications".[8] Like the Bitcoin blockchain, Ethereum is also a public blockchain network. However, while Bitcoin offers one particular application of the blockchain technology, *ie*, a peer to peer digital currency, Ethereum is more versatile and enables developers to build and deploy various kinds of decentralised applications and smart contracts on the Ethereum network.[9] In particular, Ethereum enables developers to create and launch new forms of cryptocurrencies and digital tokens on the Ethereum network.

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4 This is widely believed to be a pseudonym and the true identity of Nakamoto remains unknown. It is also unclear whether Nakamoto is an individual or a group of individuals.

5 Gareth Jenkinson, "Bitcoin White Paper – 10 Years Since Satoshi's Vision Was Brought to Life" *Cointelegraph.com* (31 October 2018).

6 Arvind Matharu, *Understanding Cryptocurrencies: The Money of the Future* (Business Express Press, LLC, 2019) at pp 15 and 16.

7 Alyssa Hertig, "Who created Ethereum?" *coindesk*.

8 Ameer Rosic, "What is Ethereum? The Most Comprehensive Guide Ever!" *blockgeeks* <https://blockgeeks.com/guides/ethereum/> (accessed 25 February 2019).

9 Ameer Rosic, "What is Ethereum? The Most Comprehensive Guide Ever!" *blockgeeks* <https://blockgeeks.com/guides/ethereum/> (accessed 25 February 2019).

This allows developers to create customised digital tokens and raise funds by launching an initial coin offering ("ICO") of such tokens on Ethereum, which became a runaway trend in 2017.[10] According to certain ICO statistics,[11] more than 82% of the ICOs to date were launched on the Ethereum network.

III. From clarifications and warnings from Monetary Authority of Singapore and Commercial Affairs Department ...

6 It was against the backdrop of an increasing number of ICOs (and the types of ICO tokens) being launched in Singapore that MAS issued a media release[12] on 1 August 2017 to clarify its regulatory position pertaining to offers of digital tokens in Singapore. In the media release, it is stated that MAS has observed that the function of digital tokens has evolved beyond just being a virtual currency. For example, certain digital tokens may represent ownership or a security interest over an issuer's assets or property. Such digital tokens may therefore be considered to be shares or units in a collective investment scheme and would be regulated as such under the Securities and Futures Act[13] ("SFA").

7 Just nine days later on 10 August 2017, MAS and the Commercial Affairs Department ("CAD") jointly issued a consumer advisory notice[14] to advise consumers to be mindful of

10 Laura Shin, "Here's The Man Who Created ICOs And This Is The New Token He's Backing" *Forbes* (21 September 2017). The first reported initial coin offering ("ICO") was actually conducted by Mastercoin in 2013, which involved the creation of a new protocol layer on top of the Bitcoin blockchain. See Chris Abraham, "The Origin Story of the Initial Coin Offering (ICO) Token Sale History" *NEWconomy* (13 October 2018). But it was after the creation of the Ethereum blockchain that ICOs became more popular as a form of fundraising.

11 "ICO Statistics - By Blockchain Platform" *ICO Watch List*.

12 "MAS clarifies regulatory position on the offer of digital tokens in Singapore" *Monetary Authority of Singapore* (1 August 2017).

13 Cap 289, 2006 Rev Ed.

14 Monetary Authority of Singapore, "Consumer Advisory on Investment Schemes Involving Digital Tokens (Including Virtual Currencies)" (10 August 2017).

the potential risks of digital token- and virtual currency-related investment schemes. In the consumer advisory notice, MAS and CAD observed the emergence of ICOs, and other investment schemes involving digital tokens, in Singapore and warned consumers to make sure they fully understand the benefits and risks of any such investment schemes before committing. MAS and CAD also highlighted a non-exhaustive list of risks that consumers should consider when considering any investment schemes involving digital tokens.

IV. … to the issuance of Monetary Authority of Singapore's *Guide to Digital Token Offerings*

8 It was pretty clear that by the third quarter of 2017, MAS was closely monitoring the developments of ICOs in Singapore. On 2 and 3 October 2017, Mr Tharman Shanmugaratnam, then Deputy Prime Minister of Singapore and Minister-in-charge of MAS, clarified, by way of a reply to Parliamentary questions on the prevalence use of cryptocurrency in Singapore and measures to regulate cryptocurrency and ICOs, that where digital tokens are structured in the form of securities, the ICO must comply with existing securities laws aimed at safeguarding investors' interests. These include regulations pertaining to prospectus requirements, and requirements to hold intermediary or exchange operator licences. Intermediaries involved in digital token-related activities are also required to comply with existing rules on anti-money laundering and countering the financing of terrorism ("AML/CFT"). Mr Tharman also clarified that MAS had not issued new legislation specifically for ICOs. However, MAS would continue to monitor the developments of ICOs and consider more targeted legislation if necessary.

9 The abovementioned slew of media releases and statements from the Singapore authorities finally led to the issuance of the first edition of the Guide on 14 November 2017. On 30 November 2018, MAS issued an updated Guide which addresses the new variations of ICO structures and digital tokens that have emerged in the market since the first edition.

Subsequently, MAS made several minor amendments and updates in the third edition of the Guide issued on 5 April 2019.[15]

V. A roadmap for regulation of blockchain-based digital tokens

10 The Guide essentially provides a roadmap for the application of existing financial regulations administered by MAS to offers of digital tokens, or the carrying out of digital token-related activities, in Singapore. However, it is expressly stated that the contents of the Guide are "not exhaustive, have no legal effect and do not modify or supersede any applicable laws, regulations or requirements".[16] Any person who wishes to offer digital tokens in Singapore, or operate a platform involving digital tokens in Singapore, is "encouraged to seek professional advice from qualified legal practitioners to ensure that [the] proposed activities are in compliance with all applicable laws, rules and regulations in Singapore".[17] Accordingly, notwithstanding the contents of the Guide, it is clear that the onus is on any person who wishes to carry out digital token-related activities in Singapore to seek independent legal advice to ensure such activities comply with the laws and regulations in Singapore.

11 It is stated in para 2.2 of the Guide that MAS will examine "the structure and characteristics of, including the rights attached to, a digital token" in order to determine whether the digital token would be characterised as a type of capital markets product under the SFA. Underpinning this approach appears to be a policy that if the digital tokens have characteristics and risks which are similar to regulated traditional financial instruments, MAS would like to regulate such digital tokens ("regulated digital tokens") as if they are such regulated traditional financial instruments. Accordingly, MAS would regulate a digital token as

15 The third edition of the *Guide to Digital Token Offerings* is accessible on the Monetary Authority of Singapore's website.

16 *Guide to Digital Token Offerings* at para 1.3.

17 *Guide to Digital Token Offerings* at para 4.2.

a share if it "confers or represents ownership interest in a corporation" or as a debenture if it "constitutes or evidences the indebtedness of the issuer of the digital token in respect of any money that is or may be lent to the issuer by a token holder".[18]

12 Other than the characterisation of digital tokens, the other key factor that determines the application of Singapore financial regulations to regulated digital tokens is the type of activity being carried out in respect of such digital tokens. Accordingly, if an issuer makes an offer of digital tokens that are characterised as shares to persons in Singapore, such an offer is required to be made in or accompanied by a prospectus which is prepared in accordance with Part XIII of the SFA and is registered with MAS, unless the offer is otherwise exempted from such requirements.[19] Similarly, if a person operates a trading platform in Singapore for digital tokens that are characterised as securities, derivatives contracts or units in a collective investment scheme, such person may be operating an organised market which requires regulatory approval or recognition by MAS, unless otherwise exempted.[20]

13 In this connection, there are a total of 11 case studies in the Guide that illustrate how financial regulations administered by MAS may apply to offers of digital tokens, or the carrying out of digital token-related activities. MAS has emphasised that the case studies are for the purpose of illustration only, and are not indicative or conclusive of how financial regulations will apply to

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18 *Guide to Digital Token Offerings* at para 2.3.

19 *Guide to Digital Token Offerings* at paras 2.4–2.7. There are certain prescribed exemptions from such prospectus requirements, including where:

(a) the offer is a small (personal) offer that does not exceed S$5 million (or its equivalent in a foreign currency) within any 12-month period, subject to certain conditions;

(b) the offer is a private placement offer made to no more than 50 persons within any 12-month period, subject to certain conditions;

(c) the offer is made to institutional investors only; or

(d) the offer is made to accredited investors, subject to certain conditions.

20 *Guide to Digital Token Offerings* at para 2.11.

any particular digital token-related activity.[21] MAS deliberately avoids using terms such as "utility token" or "stablecoin" in the case studies, and would like legal advisers to look beyond labels to examine the features and characteristics of the digital tokens.[22] This seems to be a sensible approach, as common labels for the various types of digital tokens such as "security tokens", "utility tokens", "payment tokens" or "stablecoins" are not accurate indicators of how Singapore financial regulations would apply to them. For instance, it is possible for what industry players would regard as "utility tokens" to have certain hidden security-like features, and therefore be subject to securities regulations under Singapore law.

VI. Some observations on Monetary Authority of Singapore's approach to regulating blockchain-based digital tokens

14 In principle, MAS's approach of regulating blockchain-based digital tokens depending on whether they have features and characteristics similar to regulated traditional financial instruments seems reasonable. For example, if a digital token evidences the indebtedness of the issuer in respect of any money that is lent to the issuer by a token holder, such a digital token would likely carry similar risks (*eg*, credit risks) as a debenture issued by such issuer. *Prima facie*, it would make sense for the digital token to be regulated as if it is a debenture issued by the issuer.

15 In practice, however, such an approach to regulating digital tokens is not without its challenges.

16 One important point to bear in mind is that digital tokens are fundamentally made up of digital information and program codes that exist on a blockchain. Accordingly, it is possible for a developer to create digital tokens with all sorts of features,

21 *Guide to Digital Token Offerings* at para 4.1.

22 *Guide to Digital Token Offerings* at paras 4.1 and 4.2.

perhaps limited only by the versatility of the blockchain protocol and the programming language used to create such digital tokens. As a result, there could be different shades of grey as to whether any particular feature of a digital token would be considered sufficiently similar to that of a regulated traditional financial instrument, such that the digital token should be regulated as such. This is illustrated by the following examples:

A. Example 1: "burning" digital tokens over time with the aim to increase their market value

17 We have come across examples of digital tokens which are ostensibly intended to be used as a medium of exchange or to access certain features on a blockchain platform only (*ie*, what industry players would usually refer to as "payment tokens" or "utility tokens"), and therefore *prima facie* do not appear to carry any security-like features. But there is a twist – a certain amount of such digital tokens will be "burnt" (*ie*, destroyed and taken out of circulation) periodically with the aim of increasing their market price over time.

18 Such a feature does not sit well with the assumption that a person would purchase such payment tokens or utility tokens only because the purchaser would like to consume services on the blockchain platform (or alternatively, with the hope that the blockchain platform will turn out to be successful, and therefore is purchasing the tokens with the hope that their value will increase naturally over time). Where the supply of the digital tokens would be artificially reduced with the aim of increasing their value over time, arguably, this could be regarded as an indirect way of providing financial returns to the token holders. If so, should such digital tokens be regulated by MAS as if they are shares or securities?

B. Example 2: token holders' voting rights

19 It is fairly common that digital tokens carry with them certain voting rights. These could range from the right to vote on adding, removing or altering certain features of a blockchain

platform, to a right to vote for the development and production of a tangible product, such as a new smartphone, on a decentralised autonomous organisation ("DAO").[23]

20 On the other hand, the right to vote[24] is recognised as part of the bundle of rights that a shareholder has *vis-à-vis* the company that issued the shares. That being the case, what sort of voting rights carried by a digital token would be considered sufficiently similar to that carried by a share, such that the digital token should be regulated as if it is a share? Or would the mere fact that the digital tokens carry with them certain voting rights, no matter how extensive those rights are, not be sufficient for such digital tokens to be characterised as shares?

21 Case study 8 in the Guide may offer some guidance here. In that example, the digital token only gives rights to investors to "vote on features of the platform". MAS's response is that the digital token is not a share as "it does not represent any legal or beneficial title in the shares of any company" and "it does not represent a right to claim dividends or return on capital". This seems to suggest that MAS would not regulate a digital token as if it is a share, if it merely carries with it certain voting rights and nothing else. However, does this hold true in respect of voting rights on a DAO which operates like a digital version of a company with its own rules, regulations and governance systems?

VII. Anti-money laundering and countering financing of terrorism concerns

22 Paragraph 3.1 of the Guide emphasises that the relevant MAS Notices on AML/CFT applicable to financial intermediaries would apply to any person who is deemed to be an intermediary conducting one or more regulated activities involving regulated

23 Simon Dingle, "The company of the future: a beginner's guide to the DAO" *Medium* (18 May 2016).

24 Lan Luh Luh, *Essentials of Corporate Law & Governance in Singapore* (Sweet & Maxwell, 2018) at para 2.016.

digital tokens. This is in line with what appears to be MAS's policy of regulating intermediaries carrying out regulated activities in respect of regulated digital tokens, as if such intermediaries are carrying out such regulated activities in respect of the corresponding regulated traditional financial instruments.

23 MAS also highlighted that digital tokens which are not within MAS's regulatory purview may nonetheless be subject to requirements to combat money laundering and terrorism financing in other legislation.[25] These requirements include[26]:

(a) obligations to report suspicious transactions to the Suspicious Transaction Reporting Office, CAD, pursuant to s 39 of the Corruption, Drug Trafficking and Other Serious Crimes (Confiscation of Benefits) Act;[27] and

(b) prohibitions from dealing with or providing financial services to designated individuals and entities pursuant to the Terrorism (Suppression of Financing) Act[28] and various regulations giving effect to United Nations Security Council Resolutions.

VIII. Application of FinTech regulatory sandbox and contacting Monetary Authority of Singapore

24 MAS has also clarified in the Guide that any firm seeking to apply technology in an innovative way to provide financial services regulated by MAS can apply to enter a regulatory sandbox.[29] If the application is approved, MAS will provide appropriate regulatory support by "relaxing specific legal and regulatory requirements prescribed by MAS, which the applicant would otherwise be subject to, for the duration of the sandbox".[30]

25 *Guide to Digital Token Offerings* at para 3.3.
26 *Guide to Digital Token Offerings* at paras 3.3.1 and 3.3.2.
27 Cap 65A, 2000 Rev Ed.
28 Cap 325, 2003 Rev Ed.
29 *Guide to Digital Token Offerings* at para 5.1.
30 *Guide to Digital Token Offerings* at para 5.2.

25 Finally, MAS requires any enquirer who would like to contact MAS in relation to any digital token offerings, to go through the Guide and answer certain Critical Questions in Appendix 1 of the Guide. This is meant for the enquirer to assess if it is necessary to contact MAS before doing so.[31] If it is still necessary to contact MAS after going through the Guide and the Critical Questions, the enquirer is required to submit an application to MAS enclosing all the information stated in the checklist in Appendix 2 of the Guide.[32] MAS also made clear that any response from MAS to an enquiry shall not be regarded as an endorsement of the enquirer's proposed digital token, offering or business model, and does not preclude MAS from taking any enforcement action against the enquirer for a contravention of any provision in any legislation administered by MAS.[33] This last clarification from MAS underscores again the need for any person who wishes to carry out digital token-related activities in Singapore to seek independent legal advice to ensure such activities comply with the laws and regulations in Singapore.

IX. Conclusion

26 As blockchain technology continues to evolve, bringing along with it new types of digital tokens, the Guide provides a much needed roadmap to determine how financial regulations would be applied to digital token-related activities. While MAS's approach to regulating digital tokens is not without its challenges, it is likely that future editions of the Guide will seek to address some of these challenges and continue to provide new guidance in respect of any new types of digital tokens that have emerged.

31 *Guide to Digital Token Offerings* at para 6.1.

32 *Guide to Digital Token Offerings* at para 6.2.

33 *Guide to Digital Token Offerings* at para 6.2.