

# TAX ARBITRAGE IN ICOs - A EUROPEAN PERSPECTIVE

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## Abstract

Digital tokens issued in the nascent genre of fundraising transactions collectively termed initial coin offerings (ICOs) are generating a degree of tax arbitrage driven by putative independent monetary base qualities.

The characteristics of such digital tokens were analysed by reference to those of currency and money in legal tender, and additionally analytically compared to crowdfunding initiatives, thereby identifying three key categories, namely payment-utility- and financial asset-tokens. These were then assessed in the light of European Union direct and indirect tax principles, taking into consideration approaches by third countries, ancillary jurisprudence, as well as financial regulatory considerations applicable to issuers and investors.

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Drawing on the foregoing assessment, a methodology for token taxation was developed proposing an approach to address volatility in calculating the tax base reference rate for virtual currencies, a sample token taxation test for VAT and a proposal for a cohesive global taxation system for digital tokens

## 1 ICO fundamentals - an introduction

Initial coin offering (ICO) campaigns, sometimes referred to as ‘token sales’ or ‘token-generating events’ (TGE), which use the internet and social media to raise funds for a venture through the issue of a cryptographic token in exchange for digital currency (fiat or virtual) may be paralleled to online crowdfunding campaigns or initial public offerings (IPOs).

The issuer looking for funding typically develops a cryptographic token which is either offered in exchange for one of the already well-established virtual cryptocurrencies (such as litecoin, ripple or bitcoin) with a view to ultimately exchange the raised virtual currency funds for fiat currencies or barter them for goods and services required for the project being funded.

Tokens issued within an ICO context are typically created in the form of virtual currency, entailing the ability to be used as a medium of exchange<sup>2</sup>, and disseminated using distributed ledger or blockchain technology in the shape of an independent monetary base. The collective term ‘virtual currency’ refers to two principal types of virtual units, namely:

- tokens generated in an ICO representing a particular fungible and tradable asset or utility
- coins mined via the calculation of cryptographic hashes to solve complicated mathematical problems called ‘proof of work’, having no purpose other than being a means of payment.

At this juncture, it is pertinent to point out the peculiar qualities of ‘currency’ as distinct from ‘money’<sup>3</sup>. Before the advent of governments creating monetised currency, there was barter as currency. Derived from the Latin word ‘currens’<sup>4</sup> and

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2 [M]edium of exchange, something that people can use to buy and sell from one another’, cited from Irena Asmundson and Ceyda Oner, ‘Back to Basics: What Is Money?’ (2012) Vol 49 No 3 International Monetary Fund - Finance & Development  
<[www.imf.org/external/pubs/ft/fandd/2012/09/basics.htm](http://www.imf.org/external/pubs/ft/fandd/2012/09/basics.htm)> accessed 26 June 2018

3 Refer to Chapter 2.1 on ‘The evolution of money’

4 Félix Gaffiot, *Dictionnaire Illustré Latin-Français*, (Hachette 1934)

Middle English word ‘curraunt’<sup>5</sup> entailing ‘running, moving along’, the word ‘currency’ means ‘in circulation’. Currency hence entails the ability to be kept in circulation, accepted as a **medium of exchange**. Gold, silver and salt<sup>6</sup> were an accepted ‘money’ medium for their intrinsic **ability to hold value** and be broken down into **units** (by weight) as an independent natural medium of exchange. Currency is an indicator of representative value accepted by a counterparty, a promissory note that can be traded or exchanged in return for goods or services, whilst money is a store of value divisible into units of account. Short of money taking the shape of a commodity, the intrinsic value of representative money is directly contingent on its acceptance as such by a counterparty, making it a medium of exchange recognised as currency in legal tender.

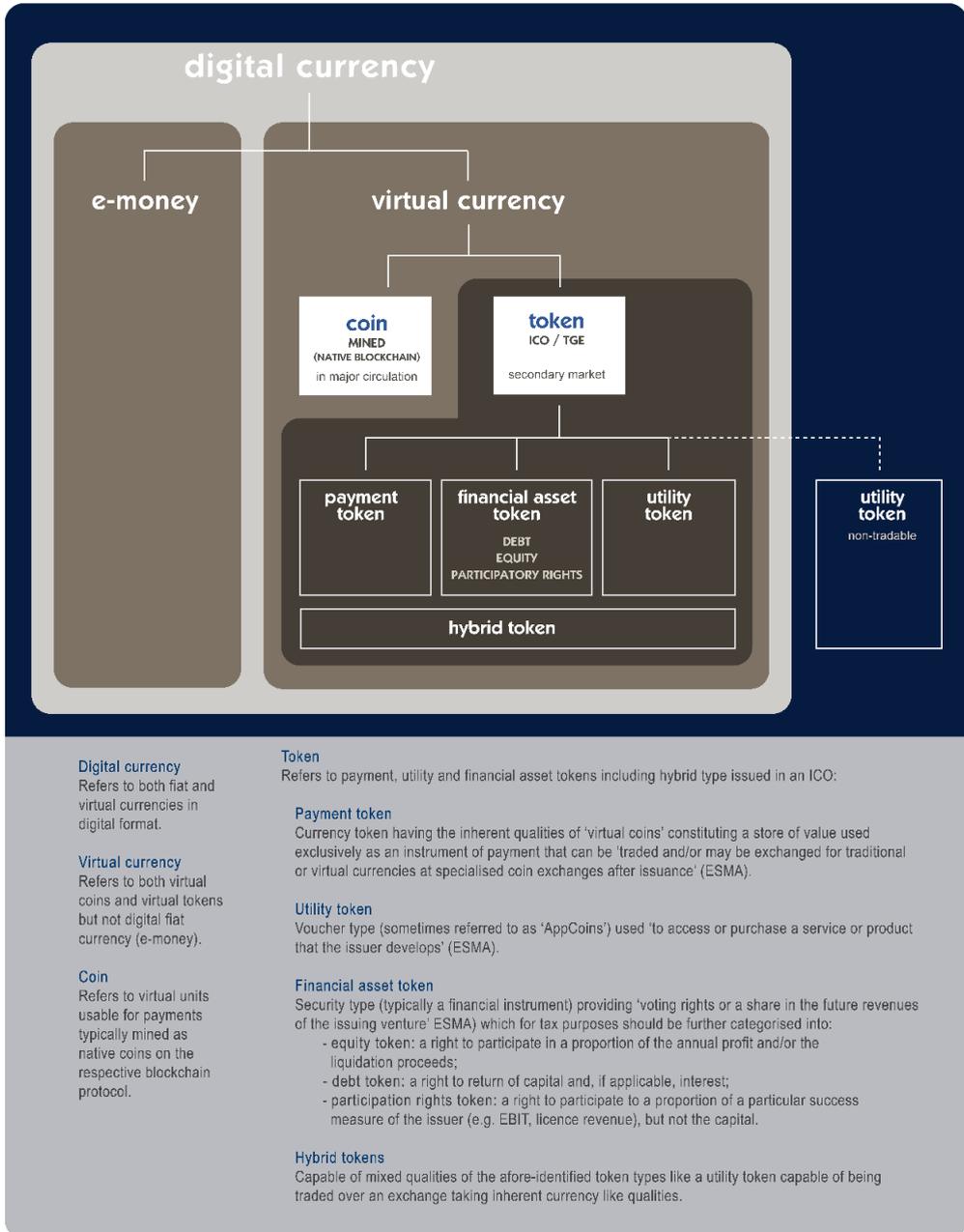
Tokens issued in an ICO would be bereft of value, unless asset backed, were it not for counterparties accepting their representative value as a medium of exchange, making it therefore possible to attribute the term ‘currency’ to them. This research draws on the classification and categorisation of tokens by the Financial Action Task Force (FATF)<sup>7</sup>, the Blockchain Policy Initiative Report<sup>8</sup>, the European Central Bank<sup>9</sup>, the European Banking Authority<sup>10</sup> and the Bank of England<sup>11</sup> amongst others to examine this underlying quality of tokens to act as proprietary payment currencies (Chapter 2).

This peculiar quality differentiates ICOs from crowdfunding. In this introductory part, the issuance of tokens in exchange for funds raised in an ICO will be weighed against the established principles of crowdfunding; reward based crowd-funding having features similar to the purpose and role of utility tokens, whilst crowd investing and crowdlending being paralleled to financial asset tokens. The typology of the respective tokens triggers different taxable scenarios, particularly when taking into

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- 5 University of Michigan, ‘Middle English Dictionary’ (rev 2006) <<https://quod.lib.umich.edu/cgi/m/mec/med-idx?type=id&id=MED9179&egs=all&egdisplay=open>> accessed 26 June 2018
  - 6 From Latin ‘salarium’ meaning salary, stipend, pension whose etymology is derived from ‘salt-money’, the soldier’s allowance for the purchase of salt; definition of ‘salary’ from *Encyclopædia Britannica* (11th edn, 1911) vol 24, p 60
  - 7 Financial Action Task Force, ‘Virtual Currencies: Key Definitions and Potential AML/CFT Risks’ (2014) FATF Report, <[www.fatf-gafi.org/media/fatf/documents/reports/Virtual-currency-key-definitions-and-potential-aml-cft-risks.pdf](http://www.fatf-gafi.org/media/fatf/documents/reports/Virtual-currency-key-definitions-and-potential-aml-cft-risks.pdf)> accessed 26 June 2018
  - 8 Blockchain Policy Initiative, ‘Blockchain Policy Initiative Report – Tokens as a Novel Asset Class’ (2017) <<https://blockchainpolicy.org/report>> accessed 26 June 2018
  - 9 European Central Bank, ‘Virtual Currency Schemes - a further analysis’ (2015) <[www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemesen.pdf](http://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemesen.pdf)> accessed 26 June 2018
  - 10 European Banking Authority, ‘EBA Opinion on “virtual currencies”’ [2014] EBA/Op/2014/08/11/19 <[www.eba.europa.eu/documents/10180/657547/EBA-Op-2014-08+Opinion+on+Virtual+Currencies.pdf](http://www.eba.europa.eu/documents/10180/657547/EBA-Op-2014-08+Opinion+on+Virtual+Currencies.pdf)> accessed 26 June 2018
  - 11 Bank of England, ‘The economics of digital currencies’ (2014 Q3) <[www.bankofengland.co.uk/-/media/boe/files/digital-currencies/the-economics-of-digital-currencies](http://www.bankofengland.co.uk/-/media/boe/files/digital-currencies/the-economics-of-digital-currencies)> accessed 26 June 2018

consideration the currency function being attributed to such token instruments. Hence, a detailed appraisal of the payment, utility and financial asset qualities of a token in the light of applicable direct and indirect tax principles will follow (chapters 2, 3, and 4, respectively), identifying the key characteristic functions thereof.

The categorisation forming the basis of this study is depicted in the following diagram.



**Diagram 1 – Digital currencies**

### **1.1. ICOs: the sum of the parts**

ICOs do not exist in a vacuum. The technology underpinning a transaction should not impact the ancillary transactional tax considerations, and transactions should be governed by the tax principles applicable to equivalent traditional ones. Hence, the regulatory and fiscal arbitrage around the application of the nascent distributed ledger and blockchain technology to financial transactions, particularly ICOs, is gradually subsiding by the issuance of guidance on the application of current legislation.

Tokens can turn everything that we're used to seeing in paper form – including shares, and money and promissory notes – digital. But the terms we will use for these things will remain unchanged (shares will still be shares). The fact that crypto assets are stored in a decentralized accounting system, or require digital signatures, doesn't change their meaning or value.<sup>12</sup>

It follows that although the majority of the jurisdictions may not have specific ICO regulations, this does not mean that all ICO offerings are permissible. Existing financial laws such as securities and collective investment scheme regulations, prepaid payment instrument regulations as well as financial instrument exchange regulations may apply to some kinds of ICOs. Failing that, the foundational laws such as civil law, commercial transaction law, consumer protection law, and criminal law should be applied to ICOs.

In its guidance note on cryptocurrencies, the United Kingdom (UK) Her Majesty's Revenue & Customs (HMRC) stated that the tax treatment of any transaction involving the use of cryptocurrencies is to be 'looked at on a case-by-case basis taking into account the specific facts', each case being 'considered on the basis of its own individual facts and circumstances.'<sup>13</sup>

The peculiar terms of an ICO, including the rights and entitlements attached to the issued tokens, are typically prescribed in a document, referred to as a whitepaper, publishing basic information on the terms of issue, similar to the prospectus in an IPO. The token issued in an ICO would typically represent a balance on an account as stipulated in the whitepaper compiled and presented by the issuer.

This token financialises value directly and allows for liquid secondary markets of exchange. This value can be fractionalised to allow any level of participation down to the smallest of micro-transactions. In principle anyone, anywhere, can participate in these new digital economies before, during, or

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12 Pavel Kravchenko, 'Know Your Tokens: Not All Crypto Assets Are Created Equal' (Coindesk, 14 August 2017) <[www.coindesk.com/what-is-token-really-not-all-crypto-assets-created-equal/](http://www.coindesk.com/what-is-token-really-not-all-crypto-assets-created-equal/)> accessed 26 June 2018

13 HMRC, 'Bitcoin and other cryptocurrencies', (2014) Policy Paper - Revenue and Customs Brief 9 <[www.gov.uk/government/publications/revenue-and-customs-brief-9-2014-bitcoin-and-other-cryptocurrencies/revenue-and-customs-brief-9-2014-bitcoin-and-other-cryptocurrencies](http://www.gov.uk/government/publications/revenue-and-customs-brief-9-2014-bitcoin-and-other-cryptocurrencies/revenue-and-customs-brief-9-2014-bitcoin-and-other-cryptocurrencies)> accessed 26 June 2018

after they have been created; allowing all parties to have a stake in their success through a form of decentralized ownership.<sup>14</sup>

The Gibraltar Financial Services Commission described ICOs as ‘an unregulated means of raising finance in a venture or project, usually at an early-stage and often one whose products and services have not yet been significantly designed, built or tested, let alone, made operational or generating revenue. Such forms of crowdfunding are often used by start-ups to bypass the rigorous and regulated capital-raising process required by venture capitalists or financial institutions. In an ICO, tokens are sold to early supporters of a project in exchange for cash or cryptocurrency, such as bitcoin or ether.’<sup>15</sup> Such a definition triggers consideration as to whether, at seed funding stage, the issuer can be deemed to be carrying out a trade or business with ancillary tax consequences<sup>16</sup>. The list of qualifiers developed by the UK HMRC<sup>17</sup>, generally referred to as badges of trade<sup>18</sup>, may be used to make the necessary assessment:

- profit-seeking motive
- the number of transactions
- the nature of the asset
- the existence of similar trading transactions or interests
- changes to the asset
- the way the sale was carried out
- the source of finance
- the interval of time between purchase and sale
- method of acquisition

The subsistence of multiple of the foregoing factors is construed as corroborative of the existence of trading, entailing a trading or economic activity subject to direct and indirect taxation.

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14 Jamie Burke, ‘The Next Stage in ICOs: The Community Token Economy’ (Medium, 3 September 2017) <<https://medium.com/outlier-ventures-io/the-next-stage-in-icos-the-community-token-economy-cte-995cfb043136>> accessed 26 June 2018

15 Gibraltar Financial Services Commission, ‘Statement on Initial Coin Offerings’ (22 September 2017) <[www.gfsc.gi/news/statement-on-initial-coin-offerings-250](http://www.gfsc.gi/news/statement-on-initial-coin-offerings-250)> accessed 26 June 2018

16 Refer to Chapter 1.3.2 (a), particularly Case C-97/90 *Hansgeorg Lennartz v Finanzamt München III* [1991] CJEU I-03795

17 ACCA Global – Technical resources, ‘Badges of Trade’ (2011) <[www.accaglobal.com/gb/en/technical-activities/technical-resources-search/2011/august/badges-of-trade.html](http://www.accaglobal.com/gb/en/technical-activities/technical-resources-search/2011/august/badges-of-trade.html)> accessed 26 June 2018

18 HMRC, ‘Business Income Manual: Meaning of trade: badges of trade: summary’, (rev 2017) BIM20205 <[www.gov.uk/hmrc-internal-manuals/business-income-manual/bim20205](http://www.gov.uk/hmrc-internal-manuals/business-income-manual/bim20205)> accessed 26 June 2018

Similar to the Gibraltarian descriptive approach, the Swiss Financial Market Supervisory Authority (FINMA), whilst acknowledging that ‘various links to current regulatory law may exist depending on the structure of the services provided’, given that ‘there is no catch-all definition’, attempted an ICO definition by reference to commonly resorted to ICO practices:

Under the usual procedure for ICOs, financial backers will transfer a certain amount of cryptocurrency to a blockchain-generated address supplied by those organising the ICO campaign. In return, financial backers receive blockchain-based coins or other tokens connected with a specific project or company run by the ICO organisers.<sup>19</sup>

FINMA’s approach does not restrict its definition of ICOs by reference to issuers in early-stage funding (start-ups) and defers the regulatory standpoint to be assessed on a case by case basis, depending on the structure of the ‘blockchain-based coins or other tokens’ and ancillary investors’ rights.

## **1.2 The peculiarity of the tokens - the constitutive parts**

Tokens are, in terms of their content, purpose, rights and duties of their holders, and consequently also incentives of the holders, substantially different. ... A token can represent many things and consequently simplification and unification of tokens is wrong, harmful and contrary to the events taking place in the industry.<sup>20</sup>

Although an issued token may not carry any traditional shareholders’ rights, this may nonetheless have speculative characteristics if it is transferable and is listed on a cryptocurrency exchange enabling trading on secondary markets. Such exchange can be for currency (virtual or real), services and products of the issuer of the token (once such products and services are developed) and possibly even profit participation rights.

The analysis of the legal relationship between the issuer and the investor as well as the qualification of the token are fundamental to address possible tax arbitrage arising from the different treatment of a token transaction by the issuer and the investor. Hence, the underlying regulatory and ancillary fiscal implications of an ICO transaction are directly contingent on the **role, purpose, features and peculiar characteristics of the issued tokens**, evolving throughout their lifespan from a fundraising function for the development of future products and services to a means of payment for such services.

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19 Financial Market Supervisory Authority, ‘Regulatory treatment of initial coin offerings’ (29 September 2017) FINMA Guidance 04/2017

20 Nejc Novak, ‘A call for legal, ethical and sustainable token offerings’ (Medium, 27 June 2017) <<https://medium.com/@nejcnovaklaw/a-call-for-legal-ethical-and-sustainable-token-offerings-4d7cd16c64ac>> accessed 26 June 2018

The inherent ability of a token to be accepted as a medium of exchange is key to the success of an ICO. In principle, all tokens in an ICO can act as an independent monetary base. However, the currency qualities of an instrument of payment are also to be confronted with the peculiarities of secondary market trading, particularly money markets. All tokens traded on an exchange are attributed financial instrument qualities akin to those of an asset or security token enabling trading in the marketplace based on counter acceptance of value by the parties to the transaction. Traded securities, although having the unitised store of value qualities of money (i.e. a number of shares having a quantifiable value), lack the intrinsic qualities of currency as a widely accepted medium of exchange discussed beforehand. In fact, listed securities are typically traded for fiat currency, but not with one another. Hence, notwithstanding the claim that tokens admitted to trading on multiple exchanges may also be ascribed currency like features, this is still to be distinguished from pure currency-type payment or value tokens that have no other utility than to be used as a means of payment<sup>21</sup>.

All the foregoing incarnations of tokens trigger different tax consequences; a payment token might be VAT exempt<sup>22</sup> but a utility token entitling the holder to goods or services which can also be used as a proprietary monetary base (thus a token having payment-type attributes) is likely to have VAT consequences. Furthermore, situations where the investors acquiring the tokens are entitled to a share of profits or a fixed return, akin to a securities issue, are to be weighed against an ICO issuer of payment tokens, akin to trading in coins. The tax arbitrage resulting from the tokenisation of different roles, purposes and features of a token necessitates the breaking down of the transactions behind a token into its constitutive elements.

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21 Refer to Chapter 2, particularly *Hedqvist* (n 40)

22 Council Directive 2006/112/EC on the common system of value added tax [2016] OJ L 347/1 (the 'VAT Directive'), art 135(1)(e)

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### Diagram 2: Token elements<sup>23</sup>

However, notwithstanding the foregoing multifaceted nature of tokens, in the interests of taxpayer certainty, a degree of alignment or harmonisation is also necessary. The classification of ICO tokens into payment, utility, financial asset and hybrid-type as depicted in Diagram 1 is intended to set a degree of clarity for the purpose of this study as well as in the tax assessment of the underlying token transactions. Based on the European Securities and Markets Authority's (ESMA) definition<sup>24</sup> in its warning statement to investors, a token can take the shape of:

- a unit having a limited intrinsic use providing the key to complete a transaction on a specific blockchain (e.g. a voucher);
- a unit representing assets in the real-world economy (e.g. equity-type);
- a unit representing rights in the real-world economy (e.g. profit-sharing entitlement); or

23 William Mougayar, 'Tokenomics-A Business Guide to Token Usage, Utility and Value', (Medium, 10 June 2017) <<https://medium.com/@wmougayar/tokenomics-a-business-guide-to-token-usage-utility-and-value-b19242053416>> accessed 26 June 2018

24 'Some coins or tokens serve to access or purchase a service or product that the issuer develops using the proceeds of the ICO. Others provide voting rights or a share in the future revenues of the issuing venture. Some have no tangible value. Some coins or tokens are traded and/or may be exchanged for traditional or virtual currencies at specialised coin exchanges after issuance'; European Securities and Markets Authority, 'ESMA highlights ICO risks for investors and firms' (13 November 2017) ESMA50-157-829 <[www.esma.europa.eu/press-news/esma-news/esma-highlights-ico-risks-investors-and-firms](http://www.esma.europa.eu/press-news/esma-news/esma-highlights-ico-risks-investors-and-firms)> accessed 26 June 2018

- currency as a medium of payment.

Some ICO tokens may be likened to a voucher, granting the right to a future service or product being provided by the issuer (utility tokens), whilst others may take the shape of a security-type token - representing equity in a company, a debenture, or a periodical revenue-sharing reward based on the success of a company - more akin to traditional initial public offerings. The challenge with an ICO lies in the fact that different tax consequences may arise depending on the specific token design and the specific transaction instance in its lifespan, also taking into consideration the private or business status of the investor.

### 1.3 Taxing the token economy

Crowdfunding and ICOs have much in common, particularly the fundraising purpose thereof. Both deal with an issuer and an investor and feature different methods of fundraising which trigger varying direct and indirect tax considerations according to the nature of the taxable event and the underlying entitlement; be it a tangible or intangible asset, good or service. However, given that within an ICO context the issuance of a token is a *sine qua non* element of the process, the medium of return is somewhat different; the ICO medium being underpinned by the token which is presented as a freestanding monetary base bundling various compensatory properties ranging from a mere acknowledgement to a financial reward, but which above all are mostly exchangeable or tradeable as an inherent exchangeable unitised store of value, be it for products or financial assets. Crowdfunding is perceived as less commercialised and possibly more community driven, supported by backers who have a direct interest in the project being financed.

Going back a couple of decades, in 1997 the British rock band Marillion raised sixty thousand United States Dollars (\$60,000) by way of donations via an online driven fan-based campaign in what is possibly the first crowdfunding campaign acknowledged as being such.<sup>25</sup>

Internet-driven financing has since evolved from an email sent to a group of fans, to social media-driven campaigns and token generation events (TGE), typical of ICOs where a project is tokenized into digital coupons and sold to early enthusiasts in exchange for convertible virtual currency (e.g. bitcoin, ether) or government fiat. The tokenisation of this self-funding mechanism for projects is underpinned by the linkage between the usage and the underlying value of the token - the economics of the token. The term 'tokenomics' was coined referring to the functions of a token capturing such aspects as the role, purpose and features of a token.<sup>26</sup> However, the bottom line is that

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25 BBC News, 'Marillion fans to the rescue' (BBC, 11 May 2001), <<http://news.bbc.co.uk/2/hi/entertainment/1325340.stm>> accessed 26 June 2018

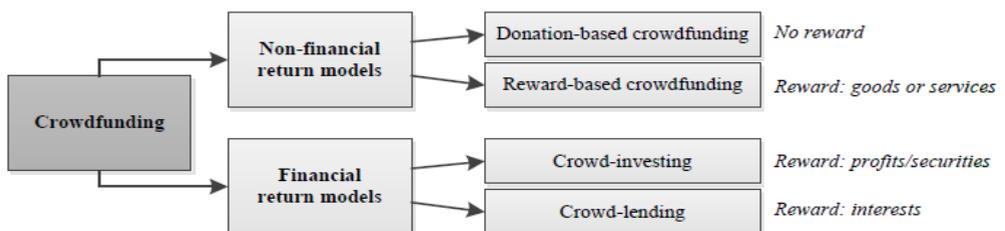
26 *Tokenomics* (n 23)

both crowdfunding campaigns and ICOs are project-specific fundraising processes via an open call on the internet. The similarities to an ICO or a TGE are numerous.

Although some guidance regarding the tax treatment of convertible virtual currencies is available, no clear guidance has been provided regarding the tax treatment of tokens offered in an ICO. Having a twenty years' head start, the fiscal space around crowdfunding is somewhat clearer. The EU Commission tasked the EU VAT Committee (henceforth referred to as the 'VAT Committee') to assess the VAT treatment of crowdfunding, which although not legally binding, provides guidance to each Member State on the adoption of such interpretative measures of the VAT Directive.<sup>27</sup> The foregoing assessment of crowdfunding will be weighed against an ICO, forming the basis for the token specific analysis of payment, utility and financial assets in the following chapters of this study.

In its initial working paper, the VAT Committee identified two main crowdfunding models split into four categories:

- (i) non-financial return models, where the return may range from either nothing (donation) to goods or services (reward-based model); and
- (ii) financial return models, where a financial return is expected, either a participation in the form of revenues or securities (crowd-investing), or interest on loans (crowd-lending).<sup>28</sup>



**Diagram 3 – Categorisation of crowdfunding models<sup>29</sup>**

Comparing this to the categorisation in diagram 1, it is evident that the tokenised model in ICOs entails a scenario where a reward is always granted in the shape of a token instrument (even if nominally), where the value of the token is dependent on the market value it can fetch when traded as a medium of exchange. Hence, whilst on

27 European Commission VAT Committee, 'VAT treatment of crowdfunding' (2015) Working Paper No 836, p3 <<https://circabc.europa.eu/sd/a/c9b4bb6f-3313-4c5d-8b4c-c8bbaf0c175a/836%20-%20VAT%20treatment%20of%20Crowd%20funding.pdf>> accessed 26 June 2018

28 *ibid* 3

29 *EU VAT Working Paper No 836* (n 27) 3

the face of it, donation-based crowdfunding lacks its peer within an ICO context, reward-based crowdfunding can be likened to utility-type tokens, whilst the financial return models in crowd-investing and -lending are comparable to equity and debt financial asset tokens.

### 1.3.1 Donation-based crowdfunding

Donations made by people who invest because they believe in the cause without expecting anything in return can be equated to an ICO where the token is a mere nominal acknowledgement or receipt and not carrying any intrinsic value, typically reflecting a considerable difference between the investment and the value of the token. Indeed, the VAT Committee remarked that where a symbolic reward is handed out, the open market value of which is clearly lower than the financial contribution, the transaction is to be construed as a donation.<sup>30</sup>

- a. **Value Added Tax** - donations typically fall out of the scope of VAT (EU VAT Committee). However, if the donation is made in kind, the goods or services donated could be subject to VAT if made by a taxable person acting as such. This may have an impact on the VAT recovery position of the business seeking to raise funds.
- b. **Taxation of investor** - the investor donates money without any return and hence there is no taxable income. Such a cost is typically not deductible for the investor unless the tax residence jurisdiction provides for specific carve-outs, possibly a tax credit if the issuer is recognized as a qualifying charity.
- c. **Taxation of issuer** - The issuer receiving a donation may be taxed on the funds received if they fall within the definition of income in terms of the tax code of its jurisdiction of tax residence. Here again, unless provision is made in the relative tax codes for specific exemptions, as is typically the case of recognised charities, proceeds from donations may be taxable, particularly where the funds are used to finance a business.<sup>31</sup>

### 1.3.2 Reward-based crowdfunding

Typically, investors are rewarded in kind via non-financial means, possibly receiving goods or services or early access to a product for their financial contribution. The reward can vary from an entitlement to a bonus when buying the product being developed by the crowdfunded financing, to the actual product, taking the shape of a prepayment or a presale. This is quite analogous to the voucher nature of pure utility

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30 *EU VAT Working Paper No 836* (n 27) 8

31 *CIR v Falkirk Ice Rink Ltd* [1975] STC 434 (TC): The company commercially operated an ice rink and received a donation from one of the clubs which feared that Falkirk was going to stop providing curling facilities. The receipt of a donation from a club was held as taxable because the company used it to supplement its trading revenue.

tokens, granting cryptographic access to the service provided (or to be provided) by the issuer at some future date in exchange for the tokens.

- a. **Value Added Tax** - when goods and services provided in return for the contribution made by the investor constitute a supply of goods and services in terms of article 2(1)(a) and (c) of the VAT Directive, VAT will be chargeable upon receipt of payment. However, a direct link<sup>32</sup> is to subsist between the supply made by the crowdfunded taxable person, and the corresponding consideration collected by way of crowdfunding. Following the ruling in *Lennartz*<sup>33</sup>, notwithstanding the likely start-up nature of the issuers resorting to this type of financing, ‘preparatory activities, such as the acquisition of operating assets, must be treated as constituting economic activities within the meaning of that article. (...) A person who acquires goods for the purposes of an economic activity (...) does so as a taxable person, even if the goods are not used immediately for such economic activities’.<sup>34</sup> Hence, by way of reverse logic, an issuer might need to account for VAT on the value of the issued tokens based on the preparatory nature of such activities, subject to the provisions of Directive (EU 2016/1065) on the VAT treatment of vouchers<sup>35</sup> which will be evaluated in detail in the light of its application to tokens.
- b. **Taxation of the investor** - unless the transaction is carried in the course of a trade or business, the reward is not taxable, and the resale of the reward is not taxable. However, if the investor uses the reward (asset) in the course of a trade or business, the investor might be able to write-off depreciations on the asset. Furthermore, if the investor invests with the purpose of making a profit on the resale of the reward (asset), the resale of the asset will be taxed, and the investment (acquisition cost) can be deducted from the sale price.
- c. **Taxation of the issuer** - The issuer receives payment for the sale or prepayment of the reward (good or service). Therefore, subject to any deferral provisions in domestic tax rules, the issuer is to be taxed on the profit or can deduct a loss depending on whether the sale price exceeds the cost of the good or service.

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32 Case C-154/80 *Coöperatieve Aardappelen vs Staatsecretaris van Financiën* [1988] ECJ 00445, para 12; Case C-230/87 *Naturally Yours vs Commissioner of Customs and Excise (UK)* [1988] CJEU 06365, para 11

33 Case C-97/90 *Hansgeorg Lennartz v Finanzamt München III* [1991] CJEU I-03795

34 *Lennartz* (n 33) paras 13 and 14

35 Council Directive 2016/1065/EC amending Directive 2006/112/EC as regards the treatment of vouchers, [2016] OJ L 177/9 defines single-purpose vouchers and multi-purpose vouchers and sets rules to determine the taxable value of transactions in both cases. Refer to chapter 3.1 hereunder for further detail

### 1.3.3 Crowd-investing

This entails a financial return model whereby the investor receives a financial reward, in the form of securities or participation in future earnings (akin to phantom shares), in exchange for a financial contribution. Within an ICO model, this can be equated to both security tokens as well as hybrid tokens which would entail tradability as a currency with an underlying financial asset (which could be in the form of a profit participation entitlement) backing its value.

- a. **Value added tax** - The crowd investing transaction is to be distinguished from the services provided by the platform facilitating the raising of finance (similar to the token exchanges). '[T]ransactions, including negotiation but not management or safekeeping, in shares, interests in companies or associations, debentures and other securities' do not constitute a supply for VAT purposes and are therefore exempt from VAT.<sup>36</sup> Participation in future earnings is, however, to be evaluated based on the nature of the underlying profits. Dividend type profit participation would be out of the scope of VAT; however, 'the assignment of a share in the co-ownership of an invention, notwithstanding the fact that that invention was not registered as a patent, may, in principle, be an economic activity subject to VAT'<sup>37</sup>. Royalty type profit sharing may be deemed a supply of services within the scope of article 25(a) of the VAT Directive in view of the deemed 'assignment of intangible property' or article 59(a) 'transfers and assignments of copyrights, patents, licences, trademarks and similar rights'.
- b. **Taxation of the investor** - Short of the investment being carried out by a portfolio trader in the course of its business, the disbursement of the investment is not deductible for the investor, and the allotted shares would not typically be subject to tax. Dividends would be subject to income tax or withholding tax in line with the tax residency of the respective parties. On the disposal of the shares, a capital gain or loss would arise. Various countries provide investment relief for supporting such capital raising schemes typically resorted to by start-ups and SMEs.
- c. **Taxation of the issuer** - The invested capital is not subject to tax in the hands of the issuer, and the issuing of shares is not tax deductible. However, some jurisdictions provide for the possibility of a notional interest deduction on invested share capital.

### 1.3.4 Crowd-lending

This entails the funding of projects in exchange for a fixed financial reward in the form of interest payments on a loan which is not contingent on profitability. Within

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36 *VAT Directive* (n 22) art 135(1)(f)

37 Case C-504/10 *Tanoarch vs Tax Directorate of the Slovak Republic* [2011] CJEU I-10853, para 46

an ICO context, digital tokens, akin to debentures, are issued to acknowledge a debt or liability owed by the token issuer. However, in a crowdfunding environment, this refers to the peer to peer type of lending; debenture type crowdfunding being treated as crowd investing<sup>38</sup>, discussed above.

- a. **Value Added Tax** - article 135(1)(d) of the VAT Directive exempts ‘the granting and the negotiation of credit and the management of credit by the person granting it’. This would apply both where the investor is acting in the course of carrying out an economic activity (article 9(1)), wherein the granting of credit would be tantamount to a transaction within the scope of article 2(1)(c) of the VAT Directive, as well as in situations where the loan or credit is not granted by a bank or financial institution.<sup>39</sup>
- b. **Taxation of the investor** - The mere disbursement of the loan is not deductible nor is the receipt of the repayment of the loan taxable. However, the return on the loan (typically interest) will be taxable. If the issuer defaults on the repayment of the loan, depending on national legislation, the investor should be able to deduct the loss if the financing is carried out in the course of a trade or business. In addition, certain jurisdictions introduce income and capital gains tax relief incentives to stimulate economic growth through crowdfunding whilst introducing a degree of investor protection. In a cross-border scenario, the issuer may be required to withhold tax on the interest paid for settlement with the domestic tax authorities subject to national tax legislation and relevant double tax treaty provisions.
- c. **Taxation of the issuer** - The issuer is not taxed on the financed amount, and the repayment of the loan is not deductible. However, the financing cost (interest) is normally tax deductible. Capital losses would be deductible according to domestic laws.

The established crowdfunding categorisation analysed above parameterises the respective tax treatment, and various analogies can be drawn to an ICO. However, besides the qualities comparable to those in crowdfunding of the three principal categories (payment-, utility- and financial asset-type) presented in diagram 1, the tokens issued in an ICO are underpinned with their currency type elements akin to virtual coins. Their tax treatment therefore necessitates an identification of the specific currency-type characteristics, distinguishing the nature of the rights attached thereto, possibly bestowing upon ICO tokens, which are comparable to virtual coins like

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38 Case C-80/95 *Harnas & Helm CV v Staatssecretaris van Financiën* [1997] CJEU I-00745, paras 19, 20: ‘the mere acquisition of ownership in and the holding of bonds, activities which are not subservient to any other business activity, and the receipt of income therefrom are not to be regarded as economic activities conferring on the person concerned the status of a taxable person’

39 Case C-281/91 *Muys’ en De Winter’s Bouw- en Aannemingsbedrijf BV v Staatssecretaris van Financiën* [1993] ECJ 855, para 13

bitcoin and litecoin, the same VAT treatment as traditional currencies, at least when used as a payment medium.

If an investor plans to use the tokens in its trade or business, would the transfer of the token in exchange for services or goods be deemed a disposal of the token for its fair market value entailing a capital gain or loss on this disposal? Would the expenditure of the fair market value of the token for the services or goods received be deductible expenditure or capital expenditure?

An assessment of the tax implications thereof necessitates an appraisal of the key elements of non-hybrid tokens in their pure state with respective specific payment-, utility- and security-like features, applying general tax principles thereto.

## 2 Payment token

Within the virtual currency space, pure payment tokens or coins (virtual) based on their own separate blockchain are being treated as separate currencies<sup>40</sup>; the holders being vested with a real right<sup>41</sup> in the digital object, where the tax treatment would be equated with that of a foreign currency. Other tokens are however bundling other functions together with the pure unitised store of value properties in a medium of exchange (typical of payment tokens). The token's acceptance as an exchangeable unitised store of value by numerous counterparties, taking advantage of the global reach of the online exchanges on which they are traded, is breaking the boundaries set by traditional currencies issued by national or regional central banks. Virtual currencies could potentially be said to be evolving into being accepted as money. This requires a brief analysis of what money actually is.

Money is intrinsic to the modern economy since it is used as a benchmark unit for the exchange (or barter) of value in payments. However, the payment medium has evolved over time from its barter origins; indeed:

The use of precious metals as money was gradually superseded: first by receipts for gold lodged with goldsmiths, then by banknotes redeemable in precious metals, and nowadays by banknotes whose value depends not on gold but on the monetary policy of the issuing central bank.<sup>42</sup>

Over the past decade, we have experienced another payment evolution driven by the digital transformation of the economy. This has led to the coining of such terms as

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40 Case C-264/14 *Skatteverket vs David Hedqvist*, [2015] CJEU 718

41 A real right is a 'ius in re', a 'right existing in a person with respect to an article or subject of property, inherent in his relation to it, implying complete ownership with possession, and available against all the world'; 'The Law Dictionary: Featuring Black Law's Dictionary Free Online Legal Dictionary' (2nd edn) <<https://thelawdictionary.org/jus-in-re/>>

42 *Bank of England on digital currencies* (n 11) p 277

‘digital currencies’, ‘electronic money’ and ‘cryptocurrencies’ reflecting a transition from physical money in the form of coins and banknotes to digital records of value.

## **2.1 The evolution of money**

From an economic perspective, money is defined by reference to the role it plays in society. Implicitly, money is another form of token representing value. The aforesaid evolutionary representation of money by the Bank of England is reflective of three phases:

- Commodity money: the representative instrument would be an object made of something that has a market value, such as a gold coin
- Representative money: the representative instrument would take the shape of a receipt that could be swapped against a certain amount of gold or silver, typically a banknote
- Fiat money: the representative instrument would be declared legal tender and issued by a central authority (bank) with no direct intrinsic value, yet it would be accepted in exchange for goods and services because people trust the issuing body to keep stable the value of the units the said money represents.

The technological evolution of money has now taken a digitisation path wherein the physical representation of value (coins and banknotes) is being dematerialised into a computer entry, typically in a savings account or a debit account with a licensed financial or credit institution.

Most money now takes the form of bank deposits, originally recorded in physical ledgers but now entered electronically onto banks’ books. Payments between customers of the same bank can be settled by entries in that bank’s accounts. But payments between customers of different banks are put into a central clearing system, with balances between banks settled by transferring claims on that central entity - a role typically played by the central bank of a given economy.<sup>43</sup>

However, there are newer payment exigencies which necessitated the shifting of the said digital money entries at the bank to digital cash, or electronic money, enabling on-the-go payments without the need of manually giving instructions to the bank to make a payment; it is now possible to have monetary value stored in a pre-paid card or a digital wallet accessible via an application (App) on a mobile device, enabling payments without the use of material cash.

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43 *Bank of England on digital currencies* (n 11) p 277

## 2.2 The virtual currencies conundrum

The present leg in the payments evolutionary path involves decentralized digital currencies or virtual currency schemes like bitcoin that exist without a central point of trust equivalent to a central bank. As at present, virtual currencies are not regarded as money in legal tender from a legal perspective.<sup>44, 45</sup> However, this has not deterred the courts from ruling that a specific type of virtual token can be treated similarly to money in legal tender for tax purposes.

In *Skatteverket vs David Hedqvist*<sup>46</sup> (Hedqvist) the CJEU held that transactions involving bitcoin are exempt from VAT under the provision concerning transactions relating to ‘currency, bank notes and coins used as legal tender’. The ruling was justified by two primary considerations:

- the difficulty that may be faced in taxing each bitcoin transaction when used instead of currency in legal tender; and
- an appreciation of the use of bitcoin being described as a medium that has no purpose other than to be a means of payment accepted as such by certain operators.

However, the fact that a particular virtual currency has the qualities of currency should not be construed as a confirmation that all virtual currencies are to be treated as currency.

As discussed in the introductory chapter, currency entails the acceptance of a unitised store of value (typically money) by a counterparty. Economists generally define money as being a verifiable asset that fulfils three basic functions:

- a store of value reflecting the purchasing ability to buy goods and services, presently or at some future date - save it and use it later;
- a unit of account with which to measure the value of any particular item that is for sale (a standard numerical unit for the measurement of value and costs of goods, services, assets and liabilities) - a common base for prices; and

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44 The ECB does not regard virtual currencies as ‘full forms of money as defined in economic literature’, stating that a ‘virtual currency is also not money or currency from a legal perspective’; *ECB on virtual currencies* (n 9) p 4

45 The Bank of England (BoE) considers that digital currencies (and thus most (if not all) virtual currencies) ‘fulfil the roles of money only to some extent and only for a small number of people’; *Bank of England on digital currencies* (n 11) p 279

46 *Hedqvist* (n 40)

- a medium of exchange with which to make payment (an intermediary in trade to avoid the inconveniences of a barter system).<sup>47, 48, 49</sup>

The foregoing qualities of money can be ascribed to fiat money in both traditional material format as well as digital money. However, a number of questions arise in respect of the virtual type of digital currencies. Do all virtual currencies ascribe to the foregoing economic theory when assessed in the light of the role they play in society? Should they all be accorded the same legal, regulatory and tax treatment?

There is no arguing that all permutations of tokens issued in an ICO are digitally issued. However, there are various digital types of money, including the virtual type (coins) mined on their native blockchain, which are not the result of an ICO. Referring to such digital types of money as ‘currencies’ or ‘coins’ and adding such adjectives as ‘digital’, ‘virtual’, ‘crypto’, ‘electronic’ has led to interchangeable, inconsistent and liberal use of terms, ignoring the underlying differences.

All cryptocurrencies are digital currencies, but there are digital currencies that do not rely on cryptographic techniques to achieve consensus, and hence are not ‘crypto’ currencies. Similarly, whilst virtual currencies are digital, there are digital currencies which are not ‘virtual’ and are backed by real-world economies, typically e-money. Hence, the proper collective noun for all these types of currencies is digital currencies as depicted in Diagram 1. In addition, one is to also assess the peculiarity of an asset-backed token, typically a financial asset token backed by a real world asset. It is the token acting as a proprietary monetary base backed by a real world asset which is referred to as a virtual currency, and not the underlying asset.

In 2014, the European Banking Authority considered it necessary to amend the 2012 definition<sup>50</sup> of virtual currency to:

a digital representation of value that is neither issued by a central bank or a public authority, nor necessarily attached to a fiat currency, but is accepted by natural or legal persons as a means of payment and can be transferred, stored or traded electronically.<sup>51</sup>

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47 University of Minnesota, *Principles of Economics* (Creative Commons eLearning Support Initiative edn, University of Minnesota Libraries Publishing 2016), ch 24, p 791-792

48 The ECB defined ‘money’ as ‘anything that is widely used to exchange value in transactions. It functions as a medium of exchange, storage of value and unit of account’; *ECB on virtual currencies* (n 9) p 33

49 Irena Asmundson and Ceyda Oner, ‘Back to Basics: What Is Money?’ (2012) Vol 49 No 3 International Monetary Fund - Finance & Development <[www.imf.org/external/pubs/ft/fandd/2012/09/basics.htm](http://www.imf.org/external/pubs/ft/fandd/2012/09/basics.htm)> accessed 26 June 2018

50 ‘A virtual currency is a type of unregulated, digital money, which is issued and usually controlled by its developers, and used and accepted among the members of a specific virtual community’; *ECB on virtual currencies* (n 9) p 5

51 *EBA on virtual currencies* (n 10)

In contrast, a digital currency that is issued by a central bank is typically referred to as ‘electronic money’ or ‘e-money’. ‘Electronic money’ is defined in article 2(2) of Directive 2009/110/EC of the European Parliament and of the Council as:

electronically, including magnetically, stored monetary value as represented by a claim on the issuer which is issued on receipt of funds for the purpose of making payment transactions as defined in point 5 of Article 4 of Directive 2007/64/EC, and which is accepted by a natural or legal person other than the electronic money issuer.<sup>52</sup>

In other words, both virtual and electronic money can be broadly defined as an electronic store of monetary value on a technical device that may be widely used for making payments to entities.<sup>53</sup> However, whilst electronic money is issued by a central authority and acts as a digital receipt of funds, virtual money is accepted as value by the recipient, typically without a central authority attesting the value.

This falls squarely in the difference between economic value (the maximum amount of money a specific person is willing and able to pay) and market value (the arm’s length value determined by supply and demand)<sup>54</sup>, the former being the driving force behind the volatility in virtual currency and the latter being the default measure setting the open market value of currencies in legal tender, pegged to a real world asset or economy.

Hence, for the purpose of this research, and based on the characteristics currently observed, from a regulatory perspective a payment token can be defined as:

**a digital representation of value, not issued by a central bank, credit institution or e-money institution, which after issuance is [exclusively] used as an alternative to money, traded or exchanged for digital currencies (fiat or virtual) at specialised coin exchanges.**

The acceptance of a payment token at multiple exchanges is possibly one of the clearest indicators of the ‘currency’ qualities of a token. A token which is only traded or exchanged on a single exchange certainly lacks the qualities of currency as an accepted medium of exchange by multiple counterparties.

However, whilst the approach taken by a number of tax authorities in relation to the tax treatment of virtual currencies echoes the afore described economic and/or legal

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52 Council Directive 2009/110/EC of 16 September 2009 on the taking up, pursuit and prudential supervision of the business of electronic money institutions amending Directives 2005/60/EC and 2006/48/EC and repealing Directive 2000/46/EC, [2009] OJ L 267, p 7

53 ECB, ‘Report on Electronic Money’ (1998) p 7  
<[www.ecb.europa.eu/pub/pdf/other/emoneyen.pdf](http://www.ecb.europa.eu/pub/pdf/other/emoneyen.pdf)> accessed 26 June 2018

54 Investopedia, ‘What is the difference between economic value and market value?’, <[www.investopedia.com/ask/answers/061615/what-difference-between-economic-value-and-market-value.asp](http://www.investopedia.com/ask/answers/061615/what-difference-between-economic-value-and-market-value.asp)> accessed 26 June 2018

characterisation of such currencies, following Hedqvist<sup>55</sup>, such definition is to be qualified by the requirement that the said token, in order for it to qualify as a virtual currency and be treated as money, should have **no other purpose** than to be a means of payment accepted as such by certain operators<sup>56</sup>; hence the addition of ‘exclusively’ in the foregoing proposed definition.

The treatment of bitcoin as a cash equivalent, however, runs counter to the interpretation given by the major audit firms and as reported on the ACCA Global CPD technical repository pending official guidance from the IFRS Interpretations Committee on the application of the present IFRS framework to account for virtual currencies. The foregoing opinion and technical guidance notes recommend that it would be appropriate to account for cryptocurrencies in accordance with IAS 38 ‘Intangible Assets’, either at cost or at revaluation, and not as ‘Cash or cash equivalents’ in terms of IAS 7 due to their perceived inability to represent a ‘medium of exchange’ and the ‘risk of changes in value’.<sup>57</sup>

### 2.3 Taxation of payment tokens (virtual coins)

Until the aforesaid Hedqvist ruling, there was a degree of convergence between the tax classification of what was to be treated as currency, and the accounting and European regulatory<sup>58</sup> standpoint. As is typically the case in taxation matters, interpretative rulings on indirect taxation precede direct taxation due to the immediacy of the collection of indirect tax in the supply chain upon execution of the transaction compared to *ex-post facto* reporting for direct tax purposes.

Whilst a payment token does not have any of the crowdfunding features contemplated in the 2015 EU VAT Committee on the VAT Treatment of Crowdfunding Working Paper<sup>59</sup>, the EU VAT Committee did express itself, albeit drawing a different

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55 In *Hedqvist* (n 40) the CJEU confirmed the interpretation which had been applied by the Belgian Federal Public Service Finance (Administration generalee de la Fiscalite, ‘Regime TVA des “bitcoins, litecoins, dogecoins, ...” (Moyens de paiement virtuel)’ [circular, 5 September 2014] <[www.scribd.com/doc/240574802/belgium-s-federal-public-service-finance-addresses-bitcoin-vat](http://www.scribd.com/doc/240574802/belgium-s-federal-public-service-finance-addresses-bitcoin-vat)>) and the Finnish Central Tax Board (Case KVL 034/2014, *X Oy* [2014] Keskusverolautakunnan A19 / 8210/2014, exempting brokerage commission on Bitcoin from VAT on the basis that it is similar to currency <[www.vero.fi/syventavat-vero-ohjeet/ennakkoratkaisut/54360/kv1034201/](http://www.vero.fi/syventavat-vero-ohjeet/ennakkoratkaisut/54360/kv1034201/)>)

56 *Hedqvist* (n 40)

57 Gary Berchowitz, ‘Fair value or at cost? Bitcoin throws accounting a curveball’, (ACCA Global CPD technical article, 1 May 2018) <[www.accaglobal.com/us/en/member/discover/cpd-articles/financial-management/bitcoinacc-cpd.html](http://www.accaglobal.com/us/en/member/discover/cpd-articles/financial-management/bitcoinacc-cpd.html)>

58 ‘Given that VCS [virtual currency schemes] are not used widely to exchange value, they are not legally money, and - in the absence of minted versions - they are not currency either, and no virtual currency is a currency’; *ECB on virtual currencies* (n 9) p 23

59 *EU VAT Working Paper No 836* (n 27) 3

conclusion from that in Hedqvist, in what is probably one of the earliest EU documents on virtual currencies. In its Working Paper No. 811<sup>60</sup>, issued in July 2014, a year before the Hedqvist ruling, the VAT Committee specifically examined bitcoin transactions in the light of whether their nature and legal status rendered bitcoin more akin to electronic money, currency, a negotiable instrument, a security, a voucher or a digital product, ultimately concluding that bitcoin had the legal characteristics of a negotiable instrument, to the exclusion of the others.

Following feedback from the UK working party, the VAT Committee confirmed its opinion in a follow-up Working Paper dated 30 April 2015<sup>61</sup> on the applicability of articles 2(1)(c) and 135(1)(d) of the VAT Directive discussing the treatment of bitcoin as an exempt negotiable instrument or a digital product, reiterating its opinion that ‘treating Bitcoin as a negotiable instrument represents at this moment the most suitable solution from a VAT perspective.’<sup>62</sup>

In Hedqvist, the CJEU concluded that bitcoin represents a direct means of payment between the operators that accept it and hence may not be regarded as a negotiable instrument. Accordingly, the exchange of bitcoins for a fiat currency is a taxable service exempted from VAT pursuant to article 135(1)(e) of the VAT Directive<sup>63</sup>, therefore giving virtual currencies the same VAT treatment as traditional currencies in regard to exchange services. Consequently, yet another Working Paper (No. 892) was issued by the VAT Committee in 2016<sup>64</sup> revising and aligning the Committee’s position with the said ruling.

The CJEU based its decision on several considerations, notably on the fact that <sup>(i)</sup> as with all financial transactions it is difficult to determine the taxable amount (and the amount of deductible VAT) and that <sup>(ii)</sup> the participating parties considered and accepted bitcoin as an alternative to legal tender with the purpose to be a means of payment.

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60 European Commission VAT Committee, ‘VAT treatment of Bitcoin’ (2014) Working Paper No 811 <<https://circabc.europa.eu/sd/a/4adc83f8-a7ab-48ee-b907-468459c0dad7/49%20-%20VAT%20treatment%20of%20Bitcoin.pdf>> accessed 26 June 2018

61 European Commission VAT Committee, ‘VAT treatment of Bitcoin (II)’ (2015) Working Paper No 854 <[https://circabc.europa.eu/sd/a/19f564ce-3878-4a61-9b8c-f0dbf545465f/854%20-%20Commission%20-%20VAT%20treatment%20of%20Bitcoin%20\(II\).pdf](https://circabc.europa.eu/sd/a/19f564ce-3878-4a61-9b8c-f0dbf545465f/854%20-%20Commission%20-%20VAT%20treatment%20of%20Bitcoin%20(II).pdf)> accessed 26 June 2018

62 *ibid* 16

63 Exempting from VAT ‘transactions, including negotiation, concerning currency, bank notes and coins used as legal tender, with the exception of collectors’ items, that is to say, gold silver or other metal coins or bank notes which are not normally used as legal tender or coins of numismatic interest’.

64 European Commission VAT Committee, ‘CJEU Case C-264/14 Hedqvist: Bitcoin’ (2016) Working Paper No 892 <<https://circabc.europa.eu/sd/a/add54a49-9991-45ae-aac5-1e260b136c9e/892%20-%20CJEU%20Case%20C-264-14%20Hedqvist%20-%20Bitcoin.pdf>> accessed 26 June 2018

Given that the aforesaid CJEU ruling specifically dealt with bitcoin, whether the CJEU's findings can be extended and applied to all virtual currencies, including ICO tokens, remains a point of controversy amongst experts.<sup>65</sup>

The aspect of the token having no purpose other than being a means of payment is fundamental when examining hybrid tokens and their eligibility for an article 135(1)(e) VAT exemption. Although the CJEU did not delve into the aspect as to whether bitcoin could be deemed as an electronically supplied service, the exclusive payment qualities of bitcoin were emphasised in paragraph 24 of the ruling:

It must be held, first, that the 'bitcoin' virtual currency with bidirectional flow, which will be exchanged for traditional currencies in the context of exchange transactions, cannot be characterised as 'tangible property' within the meaning of Article 14 of the VAT Directive, given that, as the Advocate General has observed in point 17 of her Opinion, that virtual currency has no purpose other than to be a means of payment.

This is to be construed as a narrow reference to pure payment tokens (Coins) and is in clear contrast to the varying qualities that are being ascribed to virtual currencies issued within an ICO context; qualities which go beyond the computational and algorithmic nature of bitcoin and add representation rights in the non-digital world including storage, network or even profit participation rights, that can be exchanged for services and goods, but can also be traded on secondary markets.

The ease with which an ICO token can be exchanged or traded is understandably currency-like. However, this is implicitly driven by the underlying technology. A token, which bundles payment-like features but is implicitly a digitally supplied service or a representation of rights, cannot be equated to the likes of bitcoin within the virtual currency space. Possibly, a simple way of singling out pure payment tokens is to be based on the ECB's 2015 opinion paper:

From a legal perspective, money is anything that is used widely to exchange value in transactions. (...) In a more conceptual sense, a (particular) currency refers to the specific form of money that is in general use within a country.<sup>66</sup>

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65 'Furthermore, only because a token might be linked to equity or digital storage, this does not mean it has a purpose other than being a means of payment. In contrast, *especially* in cases in which a token's issuer accepts these tokens in exchange (i.e. as a form of payment) for a particular service, the token's purpose will be to enable this sort of payment, whereas in the case of Bitcoin, one could argue that there is no *a priori* payment opportunity involved [...] Currently, we are quite confident that the CJEU meant its ruling to be applicable to all cryptocurrencies and tokens or – at least – would rule similarly in future decisions. However, in case the court should decide in favour of the opposite one day, we strongly encourage EU legislative bodies to prepare for changes in the law (i.e. the VAT Directive) that explicitly declare transactions involving cryptocurrencies and crypto tokens VAT exempt.'; Blockchain Policy Initiative, 'Blockchain Policy Initiative Report – Tokens as a Novel Asset Class' (2017) p 44 <<https://blockchainpolicy.org/report>> accessed 26 June 2018

66 *ECB on virtual currencies* (n 9) p 23

Drawing on the ECB's reference to 'used widely to exchange value' and 'in general use', one could liken these to virtual currencies which are in general use for the exchange of value on a global level (as contrasted to the national/regional level of fiat currencies).

Hence, when faced with tokens which, unlike bitcoin, are linked to specific services and/or goods, but are regularly exchanged for traditional currencies (and vice versa), an assessment as to the use of that specific token as a widely accepted unitised medium of exchange of value is to be undertaken. The mere tradability of a token on an exchange for traditional currency does not suffice to construe a token as a pure payment one within the parameters set in Hedqvist.

### 2.3.1 A comparative perspective

Hedqvist and the EC VAT Committee's working papers constitute comprehensive guidance on the qualities of bitcoin as a currency and the VAT treatment thereof, particularly within the context of a brokerage relationship.

Looking beyond Europe, the approach taken by a number of tax authorities echoes the economic and/or legal characterisation of such currencies. Both the Canadian Revenue Agency<sup>67</sup> and the Australian Taxation Office<sup>68</sup> (for business transactions) regard transacting with bitcoin as akin to a barter arrangement where two persons agree to exchange goods or services and carry out that exchange without using legal currency. The said authorities do not treat the supply of bitcoin as an exempt financial supply, and hence Goods and Services Tax (GST) is applicable.

Treating bitcoin as a digital product in a barter arrangement would be challenging from a European perspective as it would constitute an electronically supplied service<sup>69</sup> for VAT purposes. Barter implies two reciprocal supplies, each of which would be considered remuneration for the other: (i) the customer acquires goods or services from the company; and (ii) the company accepts bitcoin from the customer. The VAT treatment would depend on whether the transaction takes place between two taxable persons or whether a private person would be involved. In a business-to-business (B2B) barter, VAT would be applicable to both transactions, whereas in a business-to-consumer (B2C) barter scenario, the B2C part would be subject to VAT, but the B2B part would not. The value of the transaction would then need to be established on an arm's length basis corresponding to the value which the recipient attributes to

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67 Canada Revenue Agency, 'Digital Currency' (2018) <[www.canada.ca/en/revenue-agency/programs/about-canada-revenue-agency-cra/compliance/digital-currency.html](http://www.canada.ca/en/revenue-agency/programs/about-canada-revenue-agency-cra/compliance/digital-currency.html)> accessed 26 June 2018

68 Australian Taxation Office, 'Tax treatment of cryptocurrencies' (2018) <[www.ato.gov.au/General/Gen/Tax-treatment-of-crypto-currencies-in-Australia---specifically-bitcoin/](http://www.ato.gov.au/General/Gen/Tax-treatment-of-crypto-currencies-in-Australia---specifically-bitcoin/)> accessed 26 June 2018

69 Refer to chapter 3.2.1 for further details on electronically supplied services

the services which he would be seeking to obtain and to the amount which he would be prepared to spend for that purpose.<sup>70</sup>

The asymmetric nature of such trading (taxable person versus non-taxable person) would create practical issues in terms of VAT, generating an added administrative burden for the business participant.

### 2.3.2 VAT treatment

In terms of the foregoing considerations, particularly the VAT Committee's working papers numbered 811, 854 and 892, together with Hedqvist, it can therefore be concluded that transactions involving payment tokens having qualities similar to those of bitcoin would fall to be exempt without credit in terms of the VAT Directive and accordingly:

- income received by the issuer for the issuance of payment tokens will generally be outside the scope of VAT on the basis that the activity does not constitute an economic activity for VAT purposes due to an insufficient link between any services provided and any consideration received (article 2)
- charges for services in connection with the payment token as well as charges made over and above the value of the payment token for arranging or carrying out any transactions using a payment token will be exempt as falling within the definition of 'transactions, including negotiation, concerning deposit and current accounts, payments, transfers, debts, cheques and other negotiable instruments' (article 135(1)(d))
- currency exchange services between payment tokens as well as between fiat currency and payment tokens will be exempt as falling within the definition of article 135(1)(d)
- the supply of goods or services in exchange for payment tokens will be subject to VAT in terms of article 2 and the corresponding value in legal tender is to be applied according to the place of supply rules at the point the transaction takes place.

Where value is an issue for tax purposes and is not clear, some tax authorities are referring taxpayers to their specialist valuation team, typically employed for capital gains purposes, who support the taxpayer in ascribing a market value for the payment token transaction using generally accepted valuation principles.<sup>71, 72</sup>

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70 Case C-33/93, *Empire Stores Limited vs Commissioners of Customs and Excise* [1994] CJEU I-02329

71 HMRC, 'SAV: post-transaction valuation checks for capital gains' (2014) CG34 <[www.gov.uk/government/publications/sav-post-transaction-valuation-checks-for-capital-gains-cg34](http://www.gov.uk/government/publications/sav-post-transaction-valuation-checks-for-capital-gains-cg34)> accessed 26 June 2018

72 Refer to chapter 5.1 on 'Volatility in the tax base'

The foregoing VAT treatment of payment token transactions shall not be construed as a reflection of their treatment for direct tax purposes.

### **2.3.3 Direct tax**

The sale or disposal of payment tokens can take the shape of a token-issue by the issuer sold to an investor, but also a subsequent exchange by an investor. Such transactions need to be analysed by reference to the nature of the activities to determine whether the receipt or expenditure is income or capital, and to the status of the parties to determine whether income tax (corporate or personal) or capital gains tax is due.

Within this context, establishing the fair market value at the time of receipt of payment which is to be ascribed for tax filing purposes merits consideration. The high volatility surrounding virtual currencies mandates clear guidance on the applicable value for tax purposes. One approach could be to echo the OECD arm's length principle and adopt comparable pricing by reference to the open market price it might reasonably be expected to fetch at the time of the transaction, taking an average of the spot exchange rate set by a defined number of recognised online exchanges for the same payment token at the moment of the transaction.

In addition, highly speculative tokens which are not widely accepted as a unitized medium of exchange on recognised exchanges are not likely to be treated as currency and might be deemed as non-taxable and hence carrying no loss relief against other taxable profits, possibly analogous to gambling or betting wins.<sup>73</sup>

Although just like the definitions for regulatory purposes differ from those applied in taxation matters, there is a similar degree of non-convergence between indirect and direct tax definitions or interpretations thereof. It is therefore recommended that certain principles as those established in Hedqvist, and confirmed in the EU VAT Committee's working paper 892, are adhered to. Hence, in line with the carve-out applied by the CJEU in the Hedqvist ruling wherein the reference to 'used as legal tender' in article 135(1)(e) of the VAT directive was dismissed in view of the peculiar features of bitcoin having no purpose other than that of being an instrument of payment, each token is to be considered on the basis of its own individual facts and circumstances, and the use being made thereof, in order to establish whether it qualifies to be treated as currency on the basis of its being used as a pure payment token. On this basis, the recognition of revenue and calculation of taxable profits by business accepting payment for goods and services in virtual currencies should be identical to those getting paid in currency in legal tender.<sup>74</sup>

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73 *HMRC on bitcoin and other cryptocurrencies* (n 13)

74 'Virtual currencies (cryptocurrencies, e.g., Bitcoin) become the equivalent to legal means of payment, insofar as these so-called virtual currencies of those involved in the transaction as an alternative contractual and immediate means of payment have been accepted'; German

**a. Taxation of the issuer**

- Income tax: The issuer would typically receive payment from the investor for the sale or prepayment of the issued payment token which will serve as a medium of payment. Therefore, the issuer is to be taxed on the profit, or can deduct a loss, depending on whether the sale price exceeds the cost of the token. With pure payment tokens, the profitability is however typically derived from the commission charged on the use of the token by way of exchange for other currency (fiat or otherwise).

Within this context, it must be pointed out that the act of mining Coins or payment tokens is beyond the scope of this research since the focus is specific to tokens issued in an ICO. Miners would typically engage in solving cryptographic algorithms to verify blockchain transactions in exchange for newly-created payment tokens, commission or other rights, necessitating an application of the relative badges of trade to establish whether mining constitutes a trade or business, or otherwise gives rise to taxable gains or profits.

- Capital gains tax: If a profit or loss on a currency contract is not within trading profits or otherwise within a taxable relationship, it would normally be taxable as a chargeable gain and allowable as a loss for capital gains purposes, if the domestic tax code prescribes so.

**b. Taxation of investor**

Once issued, payment tokens are to be treated like other currency; profits and losses on payment token transactions are to be reflected in the investor's accounts (financial statements in the case of incorporated businesses) and would be taxable according to general principles of tax. Accordingly, the general rules on foreign exchange apply.

- Income tax: There are various aspects to be considered as the investor holding the token could have acquired the payment token upon original subscription when it was issued, or subsequently as an exchange for other currency in the course of normal activity, as a consumer or a merchant.

The transaction involving the disposal by an investor of a payment token or its exchange for other currency should be subject to corporate or personal tax only when constituting business or speculative income

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Bundesministerium der Finanzen, 'Circular 2018/0163969' (2018) <[www.bundesfinanzministerium.de/Content/DE/Downloads/BMF\\_Schreiben/Steuerarten/Umsatzsteuer/Umsatzsteuer-Anwendungserlass/2018-02-27-umsatzsteuerliche-behandlung-von-bitcoin-und-anderen-sog-virtuellen-waehrungen.pdf;jsessionid=FC8D5C3A39B430E10C7A9001F60986E4?\\_\\_blob=publicationFile&v=1](http://www.bundesfinanzministerium.de/Content/DE/Downloads/BMF_Schreiben/Steuerarten/Umsatzsteuer/Umsatzsteuer-Anwendungserlass/2018-02-27-umsatzsteuerliche-behandlung-von-bitcoin-und-anderen-sog-virtuellen-waehrungen.pdf;jsessionid=FC8D5C3A39B430E10C7A9001F60986E4?__blob=publicationFile&v=1)> accessed 26 June 2018.

under the taxing provisions of the respective tax code, on the premise that the nature of payment tokens is more akin to a foreign currency.

On the other hand, the mere use or acceptance of the payment token as a means of payment in the normal course of an activity, business or otherwise, should not constitute a taxable transaction in its own right, similar to an instance when currency in legal tender is used to acquire goods or services. Such payment might constitute business income for a trader when received in the ordinary course of business, profits from a profession for a self-employed person, dividends or interest if received by a securities holder, employment income if received by an employee as emoluments for services rendered during the course of employment, rental income if received in return for the use of property, the gains in realising the value of a capital asset subject to tax on its transfer, and so forth. Income tax (including, where applicable, tax on capital gains) would still be due under the general rules, including resultant profits or losses on exchange movements between currencies, in that the payment is merely effected in the equivalent to a foreign currency.

The profits of the aforesaid trade would need to be computed in accordance with generally accepted accounting practices to record the sales using an accounting standard applicable to the reporting of foreign exchange transactions. Hence, on the basis that tax accounting will eventually follow suit, adopting the principles established in the Hedqvist ruling and the EU VAT Committee's working paper no. 892 in treating virtual currency having an exclusive payment function as equivalent to currency in legal tender, in terms of IAS 21<sup>75</sup> exchange movements would be determined by reference to the company's functional currency (the currency in which the financial statements are presented) and the payment token in question.

As discussed in chapter 5.1, establishing the exchange rate acceptable to the tax authorities will be necessary to reflect the profits and losses in the company's accounts and establish the value of the tax base.

- Capital gains tax: Gains and losses incurred on the disposal of payment tokens held as a capital asset are chargeable or allowable for capital gains tax only if they accrue as a return on capital, allowable in terms of the national tax code. However, based on the foregoing treatment of payment tokens, similarly to currency in legal tender, certain countries introduced specific provisions or rulings providing for simplified tax reporting or treatment: 'We see the outcome of

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International Accounting Standards, 'IAS21 – The effects of changes in foreign exchange rates' [www.ifrs.org/issued-standards/list-of-standards/ias-21-the-effects-of-changes-in-foreign-exchange-rates/](http://www.ifrs.org/issued-standards/list-of-standards/ias-21-the-effects-of-changes-in-foreign-exchange-rates/) accessed 26 June 2018

bitcoin transactions as a result of something purely private. Therefore, any gains on bitcoin are tax-exempt, and losses are not deductible.<sup>76</sup>

If a business, instead of making sales for payment tokens in the course of a trade, disposes of an investment asset and receives compensation by way of payment tokens, the transaction should be subject to capital gains rather than income tax.

Treating payment tokens as currency, rather than as an asset, places the said novel concept of virtual coins within a developed and known system akin to a foreign currency, thereby following their nature as a medium of payment.

The aforesaid classification is, however, to be restricted to the use of such tokens as a pure payment medium which would not give rise to claims on their issuer, but simply and exclusively act as an exchangeable unitised store of value; a payment medium constituting its own independent monetary base. It may also be possible to see native tokens (such as Ether) be formally accepted as currency should they become sufficiently useful and in demand so as to emerge as a widely accepted exchangeable unitised store of value.

### **3 Utility token**

For many companies, utility appears to be an afterthought, but for a token to be successfully adopted into the community, it is the most critical component. With the amount of tokens on the market today, and new ones being launched every day, it's clear there is a bubble, though the size of it might be debatable. When the market slows, the tokens that have no utility will ultimately not have any value at all.<sup>77</sup>

Utility tokens are tokens which are intended to provide digital access to an application or service using a blockchain-based infrastructure.<sup>78</sup> The Maltese Financial Services Authority in its Consultation Paper on the Financial Instrument Test refers to utility tokens as 'virtual tokens' defining them as:

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76 Tom Sharkey, 'Denmark declares bitcoin trades are tax-free' (Coindesk, 25 March 2014) citing Hanne Søggaard, chairman of the Denmark Tax Board (Skatteforvaltningen), in reaction to ruling SKM2014.226.SR on gains from bitcoin, <[www.coindesk.com/denmark-declares-bitcoin-trades-tax-free/](http://www.coindesk.com/denmark-declares-bitcoin-trades-tax-free/)> accessed 26 June 2018

77 Shawn Wilkinson, 'Utility: The Defining Word for Tokens in 2018' (Coindesk, 23 December 2017) <[www.coindesk.com/defining-word-tokens-2018/](http://www.coindesk.com/defining-word-tokens-2018/)> accessed 6 June 2018

78 Financial Market Supervisory Authority, 'Guidelines for enquiries regarding the regulatory framework for initial coin offerings' (2018) FINMA Guidelines p3

a form of digital medium recordation that has no utility, value or application outside of the DLT platform on which it was issued and that cannot be exchanged for funds on such platform or with the issuer of such DLT asset.<sup>79</sup>

The State of Wyoming, having regard to the stringent approach taken by the United States of America (USA) legislation and the ancillary application of the wide definition of ‘security’ as regulated by the USA Securities Exchange Commission (SEC), enacted an *ad hoc* bill intended to provide for a regulatory exemption of certain types of token which meet a cumulative set of tests including the requirement that:

[t]he purpose of the token is for a consumptive purpose, which shall only be exchangeable for, or provided for the receipt of, goods, services or content, including rights of access to goods, services or content;<sup>80</sup>

This is equivalent to the non-virtual token purchased for use in arcade games, the utility and value of which is limited and specific to the games hall it was created for. The virtual utility token should be likewise restricted to use within the virtual space it was created upon. Contrastingly, the payment token discussed in the previous chapter can have a transactional existence out of the native platform it was created upon and can be exchanged for use in third-party environments.

In an ideal world, in order to clarify the position of utility tokens in the market, these should be left to the platforms they are intended for and not openly traded on the markets where they are likely to capture the attention of regulators. With a view to avoiding confusion with security tokens that mandate compliance with securities regulations, given that ICOs are closely related to the concept of initial public offerings especially when they involve financial asset tokens, developers of utility tokens usually prefer to use the term token generation events to refer to crowd sales that involve utility tokens.<sup>81</sup>

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79 Malta Financial Services Authority, ‘Consultation Paper on the Financial Instrument Test’ (2018) MFSA Ref 04-2018, p3: ‘Distributed Ledger Technology or DLT’ is defined as ‘a digital or electronic database or ledger which ordinarily is -

- (a) distributed, shared and replicated;
- (b) public or private or hybrids;
- (c) permissioned or permission less or hybrids;
- (d) protected with cryptography or equivalent forms of encryption; and
- (e) auditable:

Provided that this term shall also include any other technology that achieves the same ends.’

80 Bill No. HB0070, Open blockchain token exemption 2018, House of Representatives, Sixty-fourth legislature of the State of Wyoming, art 1(a)(ii)

81 ‘The term ICO was created by sales and marketing groups and not by lawyers. Inspiration for the term was obviously drawn from initial public offerings (‘IPO’) of shares. But this is simply wrong because a cryptographic token is an instrument, which might only potentially resemble a share in some cases and to a small extent. A token serves as a medium of content, transferable on the blockchain, whereas a share has a (legally) defined purpose, content and features. It is up to the creator to define what is the content of a token’; Novak (n 20)

However, the fundraising strength of an ICO lies in the demand and supply qualities of the token, similar to the market dictates in an IPO, rendering the exchangeability of the utility token, aside from its redemption for goods or services (within a utility token environment), akin to a tradable financial instrument.

By issuing utility tokens, an ICO start-up can offer discounts or sell pre-order coupons for products or services that are still under development and might not be actually available in the market for a few months. Some use cases are considered below:

- Purchasing services: Using a proprietary token to purchase a service from the issuer accelerates the settlement time of the transaction. Token discounts are typically granted to drive the use of the token in the initial phases when the company is scaling up and investing more than the net revenue generated. As the company's revenues grow, so will the token transfer rate.
- Creating a self-sustaining ecosystem: Creating a marketplace that connects buyers and sellers, facilitating transactions utilizing a token. A typical use case for this type of token is seen in electricity utilities where excess power generation using alternative energy sources are fed back into the grid in exchange for utility tokens to be exchanged with other utility consumers willing to purchase power using the same utility tokens. Data about the source of energy, optimised pricing, easier account switching, and portability of credit when changing houses are some of the benefits bundled with such utility tokens as Australia's Power Ledger (POWR), GRID+, and We Power (WPR).
- Automated smart contract payments: At the basis of the DLT ecosystem is the technology arrangement regulating the relationship between the issuer and investors. The automated self-execution capabilities of a smart contract allow devices to participate in the network autonomously. Within an Internet of Things (IoT) environment, a refrigerator can replenish its inventory not merely through generating a shopping list, but through restocking itself by effecting an online purchase. The utility token would allow the integration of multiple blockchain businesses onto one platform.

Hence, utility tokens would typically confer digital access rights to a specific and precisely defined (or definable) good or service at the time of issue, in the form of an advance payment for same, possibly at a prelaunch discount before it hits the exchanges following the ICO. No property rights are conferred in the issuer.

### **3.1 The voucher characteristics of a utility token**

The VAT Committee's appraisal of bitcoin as a voucher in its 2014 Working Paper No 811 on the matter rejected the analogy of bitcoin to vouchers on the basis that the holder of bitcoin was not restricted as to the goods or services that could be redeemed for bitcoin, whereas vouchers may only be exchanged for goods or services from within a limited range offered by a supplier. Compared to bitcoin, a utility token is

actually voucher-like and restricted to be redeemed with the issuer or a limited network. Hence, given the evolution of the tokenomics of the tokens since 2014 and the specific nature of the rights to access services offered by the issuer granted to the token holders, this merits a fresher assessment with specific reference to utility tokens.

Similarly, new rules have been enacted in the form of EU Council Directive 2016/1065 of 27 June 2016 amending the VAT Directive as regards the VAT treatment of vouchers, intended to reduce the mismatches in national tax rules with effect from 1 January 2019.

The said amending Directive defines ‘voucher’ as ‘an instrument where there is an obligation to accept it as consideration or part consideration for a supply of goods or services and where the goods or services to be supplied or the identities of their potential suppliers are either indicated on the instrument itself or in related documentation, including the terms and conditions of use of such instrument.’<sup>82</sup> It also sets out in the preamble that a voucher may be in physical or electronic format.

The foregoing definition echoes the Wyoming Bill’s<sup>83</sup> ‘consumptive’ and ‘exchangeable’ nature of the utility token. In addition, the said definition prescribes the declaratory details which are to be identified in the ‘instrument’, namely:

- the goods or services
- the potential suppliers
- the terms and conditions of use

Hence, in view of the above definition, a token which is redeemable for a good or service, but which is not convertible into a payment instrument, carries substantially the same fundamental legal characteristics as, and can be likened to, a voucher for VAT purposes.

### 3.2 Taxation of utility tokens

The EU VAT Committee’s working papers<sup>84</sup>, as well as the Hedqvist ruling, focused on the use of payment tokens and related services. From a tax perspective, the transactions involved in the use of a pure utility token, if it were not to also carry independent monetary base functions equivalent to a payment token, would be similar to those in reward-based crowdfunding.<sup>85</sup>

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82 *Voucher Directive* (n 35) art 1 amending art 30a of *VAT Directive* (n 22)

83 *Wyoming bill* (n 80)

84 *EU VAT Working Paper No 811* (n 60); *EU VAT Working Paper No 854* (n 61); *EU VAT Working Paper No 892* (n 64)

85 Refer to chapter 1.3.2

This part of the paper will hence focus on the taxation of pure utility tokens.

### 3.2.1 VAT treatment

The aforesaid ‘voucher’ definition prescribes that the voucher should identify the goods or services or the identity of the supplier. This follows the CJEU-established position that a supply of services is effected for consideration within the meaning of article 2(1)(c) of the VAT Directive, and hence is taxable, ‘only if there is a legal relationship between the provider of the service and the recipient pursuant to which there is reciprocal performance, the remuneration received by the provider of the service constituting the value actually given in return for the service supplied to the recipient’.<sup>86</sup>

The potential existence of a direct link between the ICO stage (the moment when the tokens are issued for the purpose of funding a project) and the eventual supply of goods or services (possibly yet to be developed using the proceeds from the ICO) may be analysed, arguing that the token generation event falls out of scope for VAT purposes and that it should only be taxed once the token is exchanged as a means of payment for the goods or services promised in the whitepaper.

In the UK First-Tier Tribunal (FTT) ruling in *Lunar Missions Limited v HMRC*<sup>87</sup> within the context of crowdfunding, the FTT concluded that rewards given to backers constituted a taxable supply and that the time of supply was contingent on the following:

- where the amount pledged is in the form of a prepayment for goods or services, then the time of supply is the date of the payment; and
- where the amount pledged is in the form of a voucher:
  - multi-purpose vouchers would be subject to VAT at the point of redemption for the goods or services
  - single-purpose vouchers (SPV) would be subject to VAT upon subscription at the moment of the pledge or issue; upon payment.

Based on the foregoing, it was therefore concluded that the receipt of funds raised on a crowdfunding platform constituted a direct link between the backers and the promoters, triggering an obligation to register for VAT. This follows the CJEU’s 1985 broad interpretation attributed to the terms ‘taxable person’ and ‘economic activity’, confirmed in *Lennartz*<sup>88</sup>, concluding that preparatory acts prior to the

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86 Case C-16/93 *R. J. Tolsma v Inspecteur der Omzetbelasting Leeuwarden* [1994] CJEU I-00743, paras 13 and 14

87 *Lunar Missions Limited v HMRC* [2018] UKFTT 06286 (TC)

88 *Lennartz* (n 33).

making of taxable supplies were tantamount to an economic activity by a taxable person.<sup>89</sup>

Applying the aforesaid concepts to an ICO, a legal relationship and reciprocal performance subsist between the investor and the issuer, where the initial contribution to the project funded via an ICO is made by an investor with a view to eventually exchange the token for a supply of goods or services delivered by the issuer. Such a conclusion may, however, entail the risk of double VAT taxation, at ICO stage and upon the redemption of the token in exchange for the underlying goods or services, if the token is transferable and ends up being exchanged by a different investor, possibly at a different place of supply.

The foregoing double taxation concern is however abated by the afore-referenced EU Voucher Directive which, similar to the Lunar Missions ruling, differentiates between single-purpose vouchers and multipurpose vouchers for VAT purposes.

‘single-purpose voucher’ means a voucher where the place of supply of the goods or services to which the voucher relates, and the VAT due on those goods or services, are known at the time of issue of the voucher;

‘multi-purpose voucher’ means a voucher, other than a single-purpose voucher.<sup>90</sup>

Since the tax point when VAT becomes chargeable is the time of supply, this is thus dependent on whether the tokens qualify as single purpose vouchers or multi-purpose vouchers.

The supply of goods/services to which a single-purpose voucher relates is known at the time of issue, and so one can easily identify the VAT treatment of the underlying transaction. Any subsequent transfer of the single-purpose voucher by a taxable person acting in his own name is thus comparable to the underlying supply of goods/services. Such treatment is in line with the general principle that VAT is chargeable at the moment that prepayment for a future supply is received and that all relevant information concerning the taxable supply is known.

By contrast, in case of a multi-purpose voucher, the real nature of the supply, the place of supply and hence the amount of VAT due are not known at the time of issue. As a result, the transfer of a multi-purpose voucher is not considered as a taxable event unless and until the actual goods or services are identified and handed over in return for the acceptance of the voucher, and the applicable VAT rate becomes certain. In this case, the chargeable event will be at the time of redemption of the multi-purpose voucher where the taxable amount will be calculated on the basis of the consideration

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89 Case C-268/83 *Rompelman-Van Deelen v Minister van Financiën* [1985] CJEU 00655

90 *Voucher Directive* (n 35)

paid for the multi-purpose voucher, or in case of lack of information concerning such consideration, the monetary value indicated on the multi-purpose voucher.

In principle, utility tokens are not refundable once acquired; however, depending on the nature of the token, the investor (token holder) may be entitled to transfer the tokens to others, in the shape of a secondary market or possibly even currency.

Hence, where the VAT treatment attributable to the underlying supply of services can be determined with certainty at the moment of issue of the token, VAT should be charged on each transfer, including on the issue of the token. It follows that where the investors are unable to transfer their tokens to others (and the suppliers and the redeemable goods or services are identifiable), the said tokens are classified as single purpose vouchers and therefore the time of supply, that is the time when VAT is chargeable, is the time when the transaction takes place, and the investor acquires the token (against funds or by way of exchange for other tokens).

On the other hand, where the participants are allowed to transfer their utility tokens, then they are considered to be multi-purpose vouchers, given that the place of supply and the amount of VAT due are not known until the token is exchanged or redeemed. The time of supply is therefore deferred to the time when the participant exchanges or redeems the token for the goods or services attached therewith; 'the actual handing over of the goods or the actual provision of the services in return for a multi-purpose voucher accepted as consideration or part consideration by the supplier shall be subject to VAT'<sup>91</sup>. The consideration will be the equivalent value, in fiat currency, at the time of supply proportionate to the number of utility tokens used.

Under all circumstances, the consideration (investment) received upon issue of the token is to be construed as inclusive of any VAT due by way of prepayment, payment on account or upon redemption for the goods or services. If the place of supply is, say, Germany, assuming the entitlement refers to a standard rated good or service, the fiat equivalent at the time of the transaction is deemed to include VAT at 19% (the standard rate of VAT in Germany).

The aforesaid parallel to vouchers for VAT purposes address the direct link considerations, particularly in circumstances where the redeemable token services are still to be developed from the proceeds raised in exchange for the utility tokens.

Within this context, it will also be necessary to determine the type of supply to be provided by the issuer. Council Implementing Regulation (EU) No 282/2011<sup>92</sup> defines electronically supplied services (ESS) as services that are delivered over the internet

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91 *VAT Directive* (n 22) art 30b as amended by the *Voucher Directive* (n 35)

92 Council Implementing Regulation (EU) No 282/2011 as amended by Implementing Regulation 1042/2013 laying down implementing measures for Directive 2006/112/EC on the common system of value added tax, [2011] OJ L 77

or other electronic network and the nature of which renders their supply essentially automated and involving minimal human intervention and impossible to ensure in the absence of information technology. In accordance with this definition and in line with the VAT directive, the entitlement to a service in virtue of a utility token which is intrinsically dependent on the internet or other electronic networks, where investors are geographically remote from one another, is to be classified as an ESS. Accordingly, as from 1 January 2015, the place of supply of B2C supplies of ESS is the place where the individual has his permanent address or usually resides. It is therefore essential that the issuer has the necessary setup to properly determine this in accordance with the applicable ESS rules.

If the investor redeeming the token is resident in an EU Member State other than the country of establishment of the issuer, then the place of supply is that Member State and the issuer will be obliged to register under the Mini one-stop-shop (MOSS)<sup>93</sup> and account for VAT of that other Member State accordingly. If the person is resident outside the EU, then the supply is exempt from EU VAT. However, it may be subject to GST according to the rules of that third country. For example, Australia recently enacted rules that where a supplier not established therein supplies electronically supplied services to non-taxable persons resident or established in that country, then the supplier is obliged to register for GST purposes and pay said GST.<sup>94</sup>

If the supply is made to a taxable person, the place of supply is normally the place of establishment of that person. VAT is not chargeable, but the reverse charge mechanism applies.

The transfer of the tokens between private individuals would obviously fall out of scope of VAT given that it would not be carried out in course of an economic activity.

### **3.2.2 Direct tax**

As a matter of practice, revenue is recognised for tax purposes in line with accounting policies. In this regard, the relevant International Financial Reporting Standards (IFRS) provide that the initial sale of a token (voucher) is not recognised as income as the underlying goods or services have not yet been supplied. It is only when the said goods or services are supplied that revenue is recognised. In establishing the value of the income, the aspects raised in chapter 5.1 on volatility in the tax base are to be considered.

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93 Council Regulation No 967/2012/EU of 9 October 2012 amending Implementing Regulation No 282/2011/EU as regards the special schemes for non-established taxable persons supplying telecommunications services, broadcasting services or electronic services to non-taxable persons, [2012] OJ L 290/1; MOSS portal <[https://europa.eu/youreurope/business/vat-customs/moss-scheme/index\\_en.htm](https://europa.eu/youreurope/business/vat-customs/moss-scheme/index_en.htm)> accessed 26 June 2018

94 Australian Taxation Office, 'GST on imported services and digital products' (27 September 2017) <[www.ato.gov.au/Business/International-tax-for-business/GST-on-imported-services-and-digital-products/](http://www.ato.gov.au/Business/International-tax-for-business/GST-on-imported-services-and-digital-products/)> accessed 26 June 2018

**a. Taxation of the issuer**

- Income tax: Although driven by the underlying consideration to raise capital, the issuance of utility tokens is intrinsically an undertaking by the issuer to honour the redemption of a token for goods or services at a future date. Hence, on the basis that the receipt of the funds results neither in interest in the company nor in a debt liability, in line with the voucher analogy, the subscription of the token is to be equated with an advance payment received by the issuer and taxable as such. However, given that at the moment of issue, the future service or good/product would not yet be available, depending on the tax rules of the issuer's jurisdiction of tax residence, assuming that the general tax rules follow the principle of taxing realised profits, a corresponding provision should be booked, with such provision constituting unrealised income and acting as accrual for the good or service to be provided; the provision would be released once the good or service becomes available, thereby becoming realised and taxable at such subsequent point.

Similarly, at the point when the revenues are recognised as income, the future development and operational costs should be accrued as a provision, to ensure that the associated income and expense are recognised periodically, ensuring that the net profit/loss of the period is determined in accordance with the applicable tax accounting principles. Insofar as income arising from the trade or business of the issuer is concerned, the amount by which expenses exceed income would constitute a trading loss for tax purposes, which loss could be carried forward depending on the tax rules of the applicable taxing jurisdiction.

In addition, the possible imposition of foreign attribution rules is to be considered. As of the 1<sup>st</sup> of January 2019, EU Member States' domestic laws must comply with minimum harmonisation standards in the areas of interest deductions, controlled foreign corporations (CFCs), hybrid mismatches, exit taxation and the introduction of a corporate general anti-abuse rule (GAAR), as per the European Council's adoption of the Anti-Tax Avoidance Directive<sup>95</sup> (ATAD).

The substantive economic activity within the country of tax residence of the issuer is key. Accessibility to finance plays a crucial role within the ICO space in driving issuers to set up business in jurisdictions which are better geared than others, with clear regulatory and tax guidelines driving genuine business seeking finance. However, this is to be backed with the right resources relevant for the income generating activities and the risks undertaken by the CFC, supported

by staff, equipment, assets and premises as evidenced by relevant facts and circumstances.

Hence, when selecting an ICO jurisdiction, shareholders of issuers are to consider articles 7 and 8 of ATAD which empower Member States to treat an entity or a permanent establishment as a CFC, and thus would have the right to tax such profits as per domestic tax rules unless the CFC's set up is driven by a genuine arrangement and/or includes substantive economic activity in the issuer's jurisdiction. Failing the satisfaction of such criteria, if the proceeds of the token raise are considered to be income according to the jurisdiction of residence of the issuer's shareholder, then these entire proceeds may be subject to tax in the hands of the shareholder.

- Capital gains tax: No capital gains implications are envisaged on the basis that a utility token entails an entitlement to a good or service.

#### **b. Taxation of the investor**

When subscribing for a utility token, the subscriber's transaction would be the equivalent counter purchase of a voucher. Accordingly, depending on whether the investor is carrying out the said transaction in the course of running a trade or business, the respective tax rules would apply in terms of income and capital gains as well as ancillary losses.

Within an ICO context, aside from the utility nature of the token, it is however also important to consider the permutation where the token is transferred from one investor to another. The success of an ICO funding round, particularly hard capped ones, drives token demand which in turn impacts the trading value of the respective ICO token. The delivery of the funded project and the success thereof triggers different demand and supply considerations given that at this stage, demand is likely to be driven by two types of investors, those needing the token to have access to the envisaged utility thereof and those having speculative interests.

The success or otherwise of this secondary market speculation may even attribute to a utility token currency-like peculiarities and ancillary tax ramifications analogous to those of payment tokens as discussed in chapter 2.3.2 (b) or secondary market considerations similar to those discussed in chapter 4.2.2 (b). This renders utility tokens which are in demand and capable of being transferred on a secondary market quite similar to financial asset or security tokens which intrinsically can take the shape of DLT tokenised financial instruments, the main difference between the two being that the latter entitle their holders to participatory financial rights, whereas utility tokens can be thought of as vouchers that grant holders access to certain goods or services.

## **4 Financial asset token**

Prospective purchasers are being sold on the potential for tokens to increase in value, with the ability to lock in those increases by reselling the tokens on a secondary market or to otherwise profit from the tokens based on the efforts of others. These are key hallmarks of a security and a securities offering.<sup>96</sup>

The SEC chairman's statement is collectively referring to all types of tokens in an ICO deeming them as securities in a security offering for their acclaimed ability to be traded on an exchange. However, it must be pointed out that tokens are not merely tradeable units on an exchange, they typically attempt to be traded for one another as a proprietary monetary base. Hence, whilst a tokenised utility would have intrinsically no security-type features (outside of a USA context) even if traded over an exchange for its intrinsic value as a medium of exchange, tokenising marketable securities and having them accepted as a medium of exchange on multiple exchanges may equate such an instrument to a currency. This is the fundamental difference between a security token and a listed security. Typically, listed securities would be listed on a recognised exchange, occasionally on multiple exchanges, but their unitised store of value is traded in exchange for fiat currency. On the other hand, a tokenised security is implicitly expected to be traded on multiple exchanges and accepted as a proprietary currency; a unitised medium of exchange with intrinsic stored value. The fundamental difference lies in the cost-efficient ease with which a token can be admitted to trading on multiple exchanges.

The possible tax arbitrage between a token treated as a currency and a token treated as a financial asset has, amongst other considerations, placed the regulatory status of an ICO squarely on the issuers' agenda at planning stage. Moving securities onto a blockchain, though improving on legacy systems in terms of settlement times and custodianship, does not change anything about the nature of the security itself.

### **4.1 Regulatory considerations**

Financial asset tokens typically entitle their holders to ownership rights over a company, its value being derived from that of the tradable asset. Utility tokens are the clear favourite given that regulators have focused on identifying the characteristics which would classify a token as tradable security or financial asset, applying regulatory measures thereto. However, this is not necessarily the case. Working within a regulated environment instils a degree of certainty and clarity in the interests of investors. In addition, combining technology with traditional financial instruments

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96 Jay Clayton, 'Testimony on "Virtual Currencies: The Oversight Role of the U.S. Securities and Exchange Commission and the U.S. Commodity Futures Trading Commission" by the Chairman of the US Securities and Exchange Commission, before the Committee on Banking, Housing, and Urban Affairs' (United States Senate, 6 February 2018) <[www.banking.senate.gov/imo/media/doc/Clayton%20Testimony%202-6-18.pdf](http://www.banking.senate.gov/imo/media/doc/Clayton%20Testimony%202-6-18.pdf)> accessed 26 June 2018

can revolutionise conventional IPOs by issuing company securities, distributing dividends and granting voting rights over blockchain networks, reducing the bureaucracy of human-driven processes such as share certificates, notifications and shareholders' meetings.

Indeed, although the USA's SEC adopts what is probably the widest definition of the term 'security'<sup>97</sup>, leading to various subpoenas being handed down on a number of USA companies launching ICOs (BitConnect, Munchee Inc., Recoin and DRC World being high profile examples of same<sup>98</sup>), rather than fleeing the scene of the jurisdiction that probably applies the toughest securities test, a number of start-ups planning an ICO are seeking A+ regulation<sup>99</sup> in the USA and launching security token offerings (STOs).<sup>100</sup>

USA regulatory parameters as to whether a token constitutes a marketable security is primarily driven by the USA Supreme Court ruling *Securities and Exchange Commission v. W. J. Howey Co.*<sup>101</sup> (the Howey Test):

an investment contract for purposes of the Securities Act means a contract, transaction or scheme whereby a person invests his money in a common enterprise and is led to expect profits solely from the efforts of the promoter or a third party, it being immaterial whether the shares in the enterprise are evidenced by formal certificates or by nominal interests in the physical assets employed in the enterprise.

The test is whether the scheme involves an investment of money in a common enterprise with profits to come solely from the efforts of others. If that test be satisfied, it is immaterial whether the enterprise is speculative or non-speculative or whether there is a sale of property with or without intrinsic value.

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97 Frederick H. C. Mazando, 'The Taxonomy of Global Securities: is the U.S. Definition of a Security too Broad?' (2012) 33 *Northwestern Journal of International Law & Business* 120

98 Jean Eaglesham and Paul Vigna, 'Cryptocurrency Firms Targeted in SEC Probe' (The Wall Street Journal, 28 February 2018) <[www.wsj.com/articles/sec-launches-cryptocurrency-probe-1519856266](http://www.wsj.com/articles/sec-launches-cryptocurrency-probe-1519856266)> accessed 26 June 2018

99 USA Jumpstart Our Business (JOBS) Act, Title IV (2015); introduced Regulation A+ as an alternative to traditional IPOs enabling smaller, early stage companies to publicly raise up to \$50 million in a 12 month period, offering an exemption from SEC and state securities law registration

100 Kai Sedgwick, 'SEC Subpoenas Shepherd ICOs towards A+ Regulation' (The Bitcoin.com News, 1 March 2018) <<https://news.bitcoin.com/sec-subpoenas-shepherd-icos-towards-regulation/>> accessed 26 June 2018.

101 *Securities and Exchange Commission v. W. J. Howey Co* [1946] 328 U.S. 293

The afore-referenced Wyoming Bill<sup>102</sup> prescribes the cumulative characteristics which a token must necessarily possess so that:

a developer or seller of an open blockchain token shall not be deemed the issuer of a security and shall not be subject to the provisions of W.S. 17-4-301 through 17-4-412 and 17-4-504.<sup>103</sup>

Hence, applying the Howey Test within an ICO context, a token issue having one of the following qualities would categorise the token as a security token subject to USA securities regulations:

- an offer to its holders to contribute to the issuer's capital and to have a share in its profits
- an opportunity to invest in a project whose profits are solely generated from the efforts of individuals other than the creators or founders of the project<sup>104</sup>

From a European perspective, whilst the former would certainly categorise a financial asset token as a marketable security, the latter profit participatory element may not automatically render a virtual financial asset as such. The EU categorisation of financial asset tokens is more granular and prescriptive, driven by the list of financial instruments listed under section C annex I of the Markets in Financial Instruments Directive (MiFID)<sup>105</sup>.

Malta is the first EU Member State to attempt a formalised Financial Instrument Test to determine whether a token issued in an ICO can be categorised as a financial instrument in terms of existing EU and national legislation. The proposed approach categorises tokens into three types of instruments:

- virtual token: equivalent to a pure unidirectional utility token having utility, value or application solely to acquire goods or services within the context of the platform on or in relation to which it was issued

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102 *Wyoming bill* (n 80)

103 *ibid* art 1(a)

104 Tamer Sameh, 'ICO basics- security tokens vs. utility tokens' (Cointelligence, 29 March 2018) <[www.cointelligence.com/content/ico-basics-security-tokens-vs-utility-tokens/](http://www.cointelligence.com/content/ico-basics-security-tokens-vs-utility-tokens/)> accessed 26 June 2018

105 Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU, [2014] OJ L 173

- financial instrument token: as prescribed by MiFID<sup>106</sup>
- virtual financial asset token: capturing all types of tokens which are not electronic money (digital representation of fiat money), a virtual token (as defined) or a financial instrument.<sup>107</sup>

The reference to ‘virtual token’ is equivalent to a simplified utility token lacking even payment-type features which constitute the intrinsic qualities of virtual currencies; a simplified tokenised voucher for use in a defined closed environment as the arcade games example discussed in Chapter 3. The latter type refers to virtual financial assets, an all-encompassing category which includes all forms of tokens other than the aforesaid simplified utility tokens and tokenised MiFID-regulated financial instruments.

A financial asset token involves the act of tokenising traditional securities enabling secondary market trading possibilities which go beyond those contemplated in traditional capital markets. This method of tokenised securities is likely to disrupt the current payment system introducing a new genre of instrument of exchange blending the advantages of virtual currencies like bitcoin into an asset-backed token. Whereas virtual currencies similar to bitcoin are being accepted as a medium of payment due to their widespread acceptance as a unitised exchangeable store of value whose underlying price is driven by perceived economic value set by the investor community (hence the volatility), the trading price of tokenised securities would be stabilised by the underlying net-asset-value of the asset backing the token. This can be likened to money markets, particularly when taking into consideration the ease with which a token can be admitted to trading on multiple exchanges. Should such a token become widely accepted as a reference unit of account and exchanged as a store of value, it would be difficult to fault anyone equating same to a currency. As the virtual currency network of exchange platforms keeps evolving, it is likely that the cross tradability of tokenised securities will lead to a situation where tokenised securities will be exchanged directly for one another without even pegging same to fiat money valuations - direct barter.

Within this space, regulatory considerations converge with tax rules in the assessment of the facts and circumstances of a particular token issuance, including the rights

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106 The following instruments are included in MiFID section C of annex I - transferable securities, money market instruments, units in collective investment schemes, financial derivatives, and emissions allowances consisting of units recognised for compliance with the requirements of Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC, [2013] OJ L 275

107 Bill No 44 proposing the enactment of the Virtual Financial Assets Act, Parliament of Malta, thirteenth legislature (2018)  
<<http://justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=29079&l=1>>  
accessed 26 June 2018

associated with a token, in determining the appropriate characterization of the respective financial asset tokens for tax purposes.

## **4.2 Taxation of financial asset tokens**

A financial asset token might be treated as straightforward debt or equity interest in the issuing entity, but a token may also embody other rights over the relevant network which may not necessarily entail equity or debt claims; for instance:

- financial entitlement rights to future profits of the issuer, a portion of token inflation, a portion of network transaction fees, or a combination thereof;
- infrastructure rights allowing holders to play a role in maintaining the network, possibly in the form of block creation rights or block validators;
- governance rights, possibly in the form of voting rights, influencing the direction of the platform or protocol.

Once more, every token would have to be analysed for the rights it grants, as such rights could be akin to those granted by shares or units on the basis of whether they:

- are issued by a body corporate
- have the essential elements of shares, stocks and similar instruments
- participate in the profits in a manner where the return is not fixed.

### **4.2.1 VAT**

Where transactions in asset tokens would be classified as ‘security transactions’, such transactions would be exempt without credit as ‘transactions, including negotiation, excluding management and safekeeping, in shares, interest in companies or associations, debentures and other securities, excluding documents establishing title to goods’<sup>108</sup>. This follows the VAT treatment of ‘Crowd-investing’ discussed in chapter 1.3.3 (a). From the investors’ perspective, debt-type tokens falling short of being considered as debentures would still be exempt without credit on the basis of article 135(1)(d) of the VAT Directive exempting ‘the granting and the negotiation of credit’.<sup>109</sup>

On the other hand, tokens which are structured similarly to a security, but which do not confer similar capital elements as traditional equity or debentures would need to be assessed on a per transaction basis. The EU VAT Committee’s working paper 836 on the VAT treatment of crowdfunding identified one such circumstance by reference to participation in future earnings in the form of royalties falling within the scope of article 25(a) of the VAT Directive in view of the deemed assignment of intellectual

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108 *VAT Directive* (n 22) art 135(1)(f)

109 Refer to Chapter 1.3.4 (a) dealing with the VAT treatment of Crowd-lending

property rights.<sup>110</sup> Tokens bundling such participation rights are likely to trigger VAT implications based on whether the supply by the issuer to the investor established the ‘direct link’ mandated in the Lennartz and Lunar Mission rulings discussed in Chapter 1.3.2(a) and 3.2.1. Analysing the foregoing scenarios, the following VAT assessment can be drawn up:

- financial entitlement rights
  - future profits of the issuer: this would take the shape of dividend, royalties or interest and the underlying supplies leading to the profits would have been subject to VAT or otherwise. However, where the profit entitlement emanates from the deemed assignment of a good or service, such a deemed transfer of property rights, as would be the case in respect of royalties, would need to be assessed from a VAT perspective given the deemed transfer of an asset (e.g. intellectual property in case of royalties or licence revenue).
  - a portion of token inflation: such an entitlement would be pegged to capital accretion which is in principle out of the scope of VAT in terms of Article 135(1)(f) of the VAT Directive.
  - a portion of network transaction fees: given the difficulty to establish the direct link between the investor holding the token and the user of the blockchain network, the entitlement to the network transaction fees would fall out of the scope of VAT. However, the underlying transaction fees charged by the issuer would be subject to the general VAT rules.
- infrastructure rights: intrinsically, such rights entail technical maintenance and validation rights akin to those held by the developers of an idea. Typically, these types of tokens are community tokens driven by a social purpose rather than the economic activity contemplated in article 2 of the VAT Directive, also lacking the financial consideration element. However, from a direct tax perspective, the badges of trade should be applied to the secondary trading of these tokens, particularly once the project is operational and well beyond its fundraising stage.
- governance rights: similar to the aforesaid infrastructure rights, a pure governance right is likely to fall out of the scope of the VAT Directive in view of the lack of financial considerations emanating therefrom, being driven by community and purpose goals, like influencing the direction of the platform or protocol. Token speculation at an advanced stage of the project would then need to be analysed from a direct tax perspective on the basis of *ad hoc* facts and circumstances pertaining to the transaction.
- a combination: the VAT treatment would need to be examined on a case-by-case basis taking into account the specific transaction within the context of its

facts and circumstances. The relevant rules would need to be applied to their component parts in order to determine the correct tax treatment, with their preponderant nature subsuming any ancillary characteristics.

#### 4.2.2 Direct tax

The payment by an investor to an issuer in exchange for an asset token in an ICO is equivalent to raising capital and thus does not constitute a taxable event. Asset tokens would be classified as share-like or bond-like financial instruments. Similar treatment to that arising from the issue of units in a collective investment scheme would be applicable to marketable securities with unit characteristics in the form of shares, as contrasted to when they would be equated with a debt instrument.

However, complex forms of financial instruments have both historically and contemporarily been utilised not only for fiscal advantages but also to improve the borrower's balance sheet. An asset token can be structured in such a way so that whilst appearing as equity (and therefore strengthening the balance sheet of the issuer) the return on the finance is treated as interest and is tax deductible given that the cost of borrowing is a function of the charges made by the investor and the tax relief obtained on the interest and fees paid. These are the hallmarks of a hybrid instrument, the economic effects of which are inconsistent with its legal form, typically falling somewhere between equity and debt capital. Convertible bonds or instruments entailing the transfer of rights to a stream of income or gains arising from marketable securities are typical examples.

The categorization of a security as a debt or equity instrument for purposes of allowable deductions has been a regular topic on the agenda of various tax groups including the OECD's BEPS workgroup. The EU has taken a proactive approach and within a span of less than a year from promulgation, the EU Council amended Directive 2016/1164<sup>111</sup> (ATAD) as regards hybrid mismatches by adopting Council Directive 2017/952<sup>112</sup> (ATAD II), consistently applying anti-avoidance tax measures in line with the Action 2 recommendations put forth by the BEPS Report<sup>113</sup>.

Article 9 of ATAD addresses double deduction or deduction without inclusion resulting from hybrid entities or hybrid financial instruments between Member States, limiting deductions to the Member State where such payment has its source. ATAD II amended the said article, extending the hybrid mismatch definition to include mismatches with third countries where the taxpayers are (or should be) subject to corporate tax in one or more Member State, including permanent establishments.

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111 ATAD (n 95)

112 Council Directive 2017/952/EU amending Directive (EU) 2016/1164 as regards hybrid mismatches with third countries, [2017] OJ L 144 (ATAD II)

113 OECD, 'BEPS 2015 Final Reports', (2015) <[www.oecd.org/ctp/beps-2015-final-reports.htm](http://www.oecd.org/ctp/beps-2015-final-reports.htm)> accessed 26 June 2018

Hybrid mismatch situations within an ICO context are likely to arise due to the tax (exempt) status of a payee or the fact that an instrument is held subject to the terms of a special regime. Should such a situation lead to a deduction without inclusion or a double deduction which is attributable to the differences in characterisation of the instrument or the payment made under it, which payment would not be included in the respective tax statements within a reasonable period of time, then the deduction shall be denied in the Member State of the payer. Failing such a denied deduction in the payer jurisdiction, an amount equivalent to the mismatch would have to be included as income in the payee's Member State.<sup>114</sup>

**a. Taxation of the issuer**

Upon issue, tokens characterized for tax purposes as equity (typically carrying rights to distributions, rights to a share of profits, or voting rights) would normally have no tax consequences to the issuer. Similarly, tokens characterized as debt (typically entailing a definite obligation to repay the investor with interest) do not trigger tax liabilities upon issue to either the issuer or investor but may result in deemed interest payments over the life of the debt and may trigger a tax liability against the issuer if the debt were to be waived by the investor.

Proceeds from participation rights tokens may however be treated differently by tax authorities, possibly, given the commitment by the issuer to use the financial proceeds as an expense for the development of the project, accounting for an equivalent amount as a tax-deductible provision on an accrual basis, based on the principle of matching revenue and costs. After completion of the project, a profit, a loss or a balanced result may result from the fundraising.

Furthermore, the issuer may also be faced with a tax liability upon redemption of redeemable asset tokens where the issuer would commit to buying back the token. Assuming that the said redemption would be based on the market price at the time of redemption, rather than refunding the purchase price, the said redemption may be treated as a means of distributing profits to token holders. Hence, should the value of the token decrease, the issuer will profit as a result of buying the token back at market prices. In the interim, the issuer would have unfettered use of the funds received for the tokens.

Issuers should also be cognizant of any reporting obligations that may ensue as a result of the issuance of financial instruments, including withholding obligations on dividends analogous to those on issuers in IPOs, as well as

compliance with disclosure requirements vis-à-vis the Common Reporting Standard<sup>115</sup> and the Foreign Account Tax Compliance Act (FATCA).<sup>116, 117</sup>

## b. Taxation of the investor

- Income tax: Taxation of returns from the tokens throughout the period where an investor holds on to a token is peculiar to the intrinsic rights of the respective tokens and the nature of the transaction leading to possible tax consequences, taking into consideration:
  - whether it constitutes dividends, interest or equivalent
  - whether it constitutes a non-taxable return of capital or income
  - whether in the recipient's hands such return represents part of the business income or other types of income
  - the nature of the recipient: resident or non-resident individual or corporate entity.

When dealing with asset tokens entailing a profit sharing element, it is advisable to determine which profits are to be shared and the proportion of the share of profits to which the holder is entitled. A token entitling the investor to a share in all of the issuer's profits would easily qualify as an ownership interest equivalent to equity. However, a share in part of the profits may not necessarily be deemed equivalent to an equity holding, leading to a situation where the share of profits would be equated to income rather than a dividend.<sup>118</sup>

It follows that where the investor's receipt of payment is contingent on the profitability or otherwise of the underlying operations of the ICO, such payment would be equivalent to and thus equated for tax purposes to dividends. Where the issuer has an obligation to repay the funds invested, the return on the token is likely to be equated to interest due to the underlying debt nature of the transaction. Furthermore, the foregoing may always be classified as investment income, drawing on any applicable peculiar tax treatment.

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115 Council Directive 2014/107/EU of 9 December 2014 amending Directive 2011/16/EU as regards mandatory automatic exchange of information in the field of taxation [2014] OJ L 359 (DAC2)

116 Foreign Account Tax Compliance Act 2010 (FATCA)

117 United States Internal Revenue Code, art 1471(a): prescribes a withholding rate of 30% if a foreign financial institution does not comply with FATCA rules

118 *Tribune Company v. Commissioner of Inland Revenue* [2005] 125 TC 110 <[www.ustaxcourt.gov/InOpHistoric/tribune.TC.WPD.pdf](http://www.ustaxcourt.gov/InOpHistoric/tribune.TC.WPD.pdf)> accessed 26 June 2018; the court ruled that holding an interest in a company that would only allow the holder to control funds nominally held by the said company is not equity

Similarly, financial asset tokens entitling holders to discounts on goods or services from the issuer are likely to be treated as distributions from the issuer, like any special benefit received by a shareholder, creating a tax liability equivalent to that on dividends for the investors receiving the discount.

It is also worth noting that where the issuer is constituted as a transparent entity, like a partnership, the taxable income of the partnership will flow through to the investors, so they may have ongoing tax liabilities.

In addition, aside from the return on the token, the habitual acquisition and disposal of tokens would be construed as trading income when the investment is made in the ordinary course of business, an assessment which is to be determined by reference to all facts and circumstances and the ancillary badges of trade<sup>119</sup>.

- Capital gains tax: Similar to positions taken with listed securities, many investors speculate on the appreciation or depreciation in value of the tokens, which value, however, would remain unrealised, and therefore not give rise to a taxable event, until disposal. As discussed beforehand, where an investor acquires a token with the intention of holding on to it until it increases in value, a gain on a capital asset would be realised upon disposal. Such a gain would be taxable only if the nature of the asset would be chargeable to tax; typically, payment and utility tokens would not, while an asset-backed token, possibly in the nature of a security, would be taxable on any appreciated value at the point of redemption or disposal of the tokens. The latter approach may also be applicable to hybrid tokens carrying features which equate them more closely with a financial asset-type token.

Issuer redeemable asset tokens, including buyback and burning<sup>120</sup>, aside from the afore-referenced debt-equity categorisation considerations, would entail that the amount received by the issuer would have to be refunded. The redemption of redeemable securities is normally treated as a return of capital rather than income in the hands of the investor upon redemption. Hence, unless such a redeemable asset token qualifies to be treated as a marketable unit with an existing and fixed obligation to repay the value of the units received, it is likely that such return on the original investment would be categorised as income.

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119 *Badges of trade* (n 18)

120 'Token burning' means making the token permanently unusable. For further details refer to Sudhir Khatwani, 'What is Coin Burn in Cryptocurrency: A Guide for Investors' (Coinsutra, 21 February 2018) <<https://coinsutra.com/proof-of-burn/>> accessed 26 June 2018

The foregoing is subject to any peculiar tax treatment and ancillary exemptions which may be applied by Member States.

## 5 Addressing the arbitrage

Due to the categorisation of the nature of the token, volatility in value or regulatory ambiguity, ICO issuers and investors are faced with the same degree of tax uncertainty as has plagued the digital economy for the past decade, as tax authorities struggle to maintain pace with the transformative nature of the digital economy. In addition, attempts to isolate the digital economy for taxation purposes from the rest of the economy are likely to fail due to its pervasive nature.

It therefore comes as no surprise that global initiatives in technology, digital assets, and the digital economy were recurring themes of discussion during the first G20 meeting of finance ministers and central bank regulators held in Argentina in March 2018, themed 'Building consensus for Fair and Sustainable Development'. On this basis, a proposal for a cohesive digital tax framework will be presented as a possible solution to address tax arbitrage given the global nature of the digital economy, particularly in ICOs, recommending a token taxation test for EU VAT purposes and a proposal for taxing the digital economy.

Within this context, it is however necessary to adopt a cohesive approach in establishing the underlying taxable value of virtual asset (or crypto-asset) transactions by reference to an established or widely accepted reference rate of exchange. As discussed in the previous chapters, aside from an *ad hoc* qualitative assessment of a token's functions for tax purposes, the value of the tax base is to be determined.

### 5.1 Volatility in the tax base

The tax base is directly contingent on the time when the tax is due and the established tax value upon which tax is to be charged. Hence, when transacting in virtual currencies, the obvious solution would be to refer to the 'reference exchange rate'<sup>121</sup> and establish the value of the transaction in the operational or responsible currency in legal tender of the taxpayer for the same or an equivalent taxable transaction, good or service.

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121 *VAT Directive* (n 22) art 91(2): 'the exchange rate applicable shall be the latest selling rate recorded, at the time VAT becomes chargeable, on the most representative exchange market or markets of the Member State concerned, or a rate determined by reference to that or those markets, in accordance with the rules laid down by that Member State'

Short of the possibility to compute tax on the consideration actually received for the supply (as the CJEU ruled in *Astra Zeneca*<sup>122</sup>), reference should be made to the correlative open market value of:

- an equivalent good or service or transaction in legal tender currency<sup>123</sup>, or
- the virtual currency received for the said supply.

Where goods and services are marked with equivalent pricing in both fiat as well as the virtual currency in question, the equivalent open market price for the relative goods or services can be referred to. The adoption of the open market value in legal tender currency of a token transaction for purposes of establishing the value of the tax base is even more relevant in scenarios where a token transaction is deemed equivalent to a barter wherein ‘the taxable amount in respect of the goods bought from the supplier ... corresponds to the price paid by the supplier of an article.’<sup>124</sup> This would entail the possibility to refer to the supplier’s base cost as an indicator of the tax base value.

Failing the foregoing, in line with the *Astra Zeneca* and similar CJEU rulings prescribing that the taxable amount should be computed on the basis of the consideration actually received, should the open market value by reference to equivalent transactions (including goods or services) not be possible, the concept of the reference exchange rate established in article 91(2) of the EU VAT Directive can be extended to tokens for as long as an open market exchange rate is available for the said tokens. This is in line with the guidance provided by the Inland Revenue Authority of Singapore, namely that ‘the virtual currency exchange rate at the point of the transaction may be used.’<sup>125</sup> However, on this basis, the methodology with which the reference exchange rate is to be determined remains as yet to be established.

The US IRS provides guidance that ‘[i]f a virtual currency is listed on an exchange and the exchange rate is established by market supply and demand, the fair market value of the virtual currency is determined by converting the virtual currency into U.S. dollars (or into another real currency which in turn can be converted into U.S. dollars) at the exchange rate, in a reasonable manner that is consistently applied.’<sup>126</sup> This is

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122 Case C-40/09 *Astra Zeneca UK Ltd v Commissioners for Her Majesty’s Revenue and Customs* [2010] CJEU I-10853, para 28: ‘the taxable amount for the supply of goods or services is represented by the consideration actually received for them’

123 *VAT Directive* (n 22), art 80(1): This is on the basis that the investor and the issuer would qualify to be deemed ‘closely connected persons’

124 *Empire* (n 70), para 20

125 Inland Revenue Authority of Singapore (IRAS), ‘Income Tax Treatment of Virtual Currencies’ (2018) <[www.iras.gov.sg/irashome/Businesses/Companies/Working-out-Corporate-Income-Taxes/Specific-topics/Income-Tax-Treatment-of-Virtual-Currencies/](http://www.iras.gov.sg/irashome/Businesses/Companies/Working-out-Corporate-Income-Taxes/Specific-topics/Income-Tax-Treatment-of-Virtual-Currencies/)> accessed 26 June 2018

126 US Federal Internal Revenue Service (IRS), ‘Notice 2014-21’, (2014) Sec 4 A-5, <[www.irs.gov/pub/irs-drop/n-14-21.pdf](http://www.irs.gov/pub/irs-drop/n-14-21.pdf)> accessed 26 June 2018

consistent with the Australian Tax Office position which refers to the ‘fair market value which can be obtained from a reputable cryptocurrency exchange.’<sup>127</sup> UK HMRC, in its 2014 policy paper on bitcoin and other cryptocurrencies conceded that ‘[f]or the tax treatment of virtual currencies, the general rules on foreign exchange and loan relationships apply.’<sup>128</sup> On this basis, the provisions of the HMRC Business Income Manual on the application of exchange rates for tax purposes indicate that ‘the exchange rates used in the business accounts are also acceptable for computing exchange gains or losses for the purposes of determining trade profits, where the use of such exchange rates is in accordance with generally accepted accounting practice.’<sup>129</sup>

The resonant position amongst tax authorities is therefore consistent in entrusting the taxpayer with identifying the reference exchange rate on the basis of reputable sources so long as same are ‘in accordance with generally accepted accounting practice’<sup>130</sup> and applied ‘consistently’ ‘in a reasonable manner’<sup>131</sup>.

Based on the foregoing, it remains to be established whether a spot exchange rate or an average rate for a day, week, month or year is the more reasonable approach to account for reporting periods. Possibly, given the volatility in traded tokens and coins, a spot exchange rate would make for more accurate and consistent accounting. Drawing on experiences shared by financial reporting officers of other businesses<sup>132</sup>, there seems to be a consistent view that it would make for better bookkeeping if the same exchange rate for the price of a good or service or equivalent transaction, and that of the underlying token transaction, is used. It is also advisable that consistent reference to the rates established by a selected exchange platform is made. This would entail a spot exchange rate process wherein transactions within the same day would be accounted for on the basis of spot virtual currency *versus* fiat currency rates at the time of the transaction, which rate is to be consistently sourced from the same exchange. The process should also entail a reconciliatory exercise documenting:

- nature of the transaction
- purpose
- amount

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127 ATO on cryptocurrencies (n 68)

128 *HMRC on bitcoin and other cryptocurrencies* (n 13)

129 HMRC, ‘Business Income Manual: Foreign exchange: exchange rate for tax purposes’, (rev 2017) BIM39515 <[www.gov.uk/hmrc-internal-manuals/business-income-manual/bim39515](http://www.gov.uk/hmrc-internal-manuals/business-income-manual/bim39515)> accessed 26 June 2018

130 *HMRC on rates of exchange* (n 129)

131 *IRS on virtual currency exchange rates* (n 126)

132 Agnieszka Sarnecka, ‘Bitcoin, Cryptocurrency and Taxes: A Crypto tax guide with examples’ (Medium, 10 August 2017) <<https://blog.neufund.org/cryptotaxes-money-money-money-must-be-funny-in-the-crypto-world-c82cd512a403>> accessed 26 June 2018

- date and time
- exchange rate
- details of the exchange platform.

On this basis, when payment for issued tokens is in a virtual currency in major circulation which has a specific value in fiat currency at the time of issue, compared to that at the time the tokens are redeemed, it is the equivalent fiat value at the time when the income is recognised which should be recorded as revenue. Any difference in value accounting between when the tokens were issued and subsequently redeemed is to be recognised as exchange gains or losses in the income statement.

In addition, where the redemption rights over a token have a time limit, then if not redeemed, the subscription amount related to the token is to be recognised as income upon its expiry date. If it has no time limit, short of there being accounting or tax guidance, the issuer should adopt an accounting policy whereby the value of the voucher is consistently recognised as income after a predetermined period of time.

The foregoing considerations on token volatility are also to be extended to the capital aspects of the token, and ancillary arbitrage in the taxable base of any perceived capital accretion. Hence, aside from the aforesaid reference exchange rate, Member States looking at taxing tokens upon issuance should take into consideration the fact that the tokens issued in an ICO are illiquid until the project is successfully delivered. The perceived economic value of an ICO raising a healthy amount of funds is not an indictive metric of the successful delivery of the promised project, nor does it provide a guarantee as to the likely redemption of the token rights by way of goods, services, entitlement rights or return on capital. This metric cannot be directly translated into capital accretion in the token value, or the assumption that the start-up will generate enough revenue to become a sustainable company at the end of the journey. To the contrary, should there be a higher market cap in terms of issued tokens, it is quite likely that unless demand for the token picks up, there would be an excessive supply for the demand, and the capital value of the token would possibly plummet.<sup>133</sup>

Given the origins of ICOs as an alternative avenue for accessibly to finance, cognisant of the fact that such an investment is highly speculative and may be completely or substantially lost, ending up with a worthless token, it is therefore recommended that the issuer in an ICO is not valued on the basis of the price paid by investors at the ICO funding round. The taxation of an ICO issuer should be carried out on the basis of its net asset value, taking into consideration the projected investment to deliver the project, possibly deferring the tax charge for a period of two or three years in line with tax amortization rules, enabling the funds raised and the project expenses to be set off against each other, matching costs and revenue. This would allow the entity (ICO

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133 Kyle Samani, 'New Models for Utility Tokens' (Multicoin Capital, 13 February 2018) <<https://multicoin.capital/2018/02/13/new-models-utility-tokens/>> accessed 26 June 2018

issuer) running the funded project sufficient time to gain ground as a viable business, achieving the mean liquidity and productivity levels required. Tax authorities as well as investors themselves would thus reap the multiplier benefits when the tokens are sold or the ICO issuer seeks listing on a regulated market. Volatility would thus be pegged to the exchange rate applicable at the time of disposal.

## **5.2 A solution for token taxation?**

Aside from the foregoing tax base arbitrage, taking stock of the different types of tokens analysed in this study, tax authorities are to establish clear guidance on the direct and indirect tax treatment of tokens, particularly on a cross border basis. The harmonisation of the VAT treatment of supplies of goods and services in Europe via the EU VAT Directive renders it possible to attempt a proposal for the setting of a token taxation test (T<sup>3</sup>) for VAT purposes. Direct taxation will however be addressed separately in the second part of this sub-heading recommending a global project drawing on lessons learnt from the 2015 BEPS Final Report on Action 1 Addressing the Tax Challenges of the Digital Economy<sup>134</sup> and the European Commission Fair Taxation of the Digital Economy project.<sup>135</sup>

### **5.2.1 Token Taxation Test for VAT purposes**

Tokens necessitate an appraisal on the basis of their respective payment vs utility vs financial asset functions and underlying tokenomics prescribed in the ancillary whitepaper, possibly identifying the preponderant taxable transactions thereof. For instance, the possible application in respect of hybrid tokens of the exemptions provided by article 135 of the VAT Directive would need to be analysed on a case by case basis according to the transaction under consideration.

The following test is based on the principles set forth in the EU VAT Directive as expounded upon in the present study and is intended to establish whether VAT is chargeable upon issue or sale of a token, and the taxable value thereof. The test is subject to the conditions and limitations laid down by each Member State.

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134 *BEPS* (n 113), ‘Action 1: Addressing the Tax Challenges of the Digital Economy’

135 European Commission, ‘Fair Taxation of the Digital Economy’ <[https://ec.europa.eu/taxation\\_customs/business/company-tax/fair-taxation-digital-economy\\_en](https://ec.europa.eu/taxation_customs/business/company-tax/fair-taxation-digital-economy_en)> accessed 26 June 2018

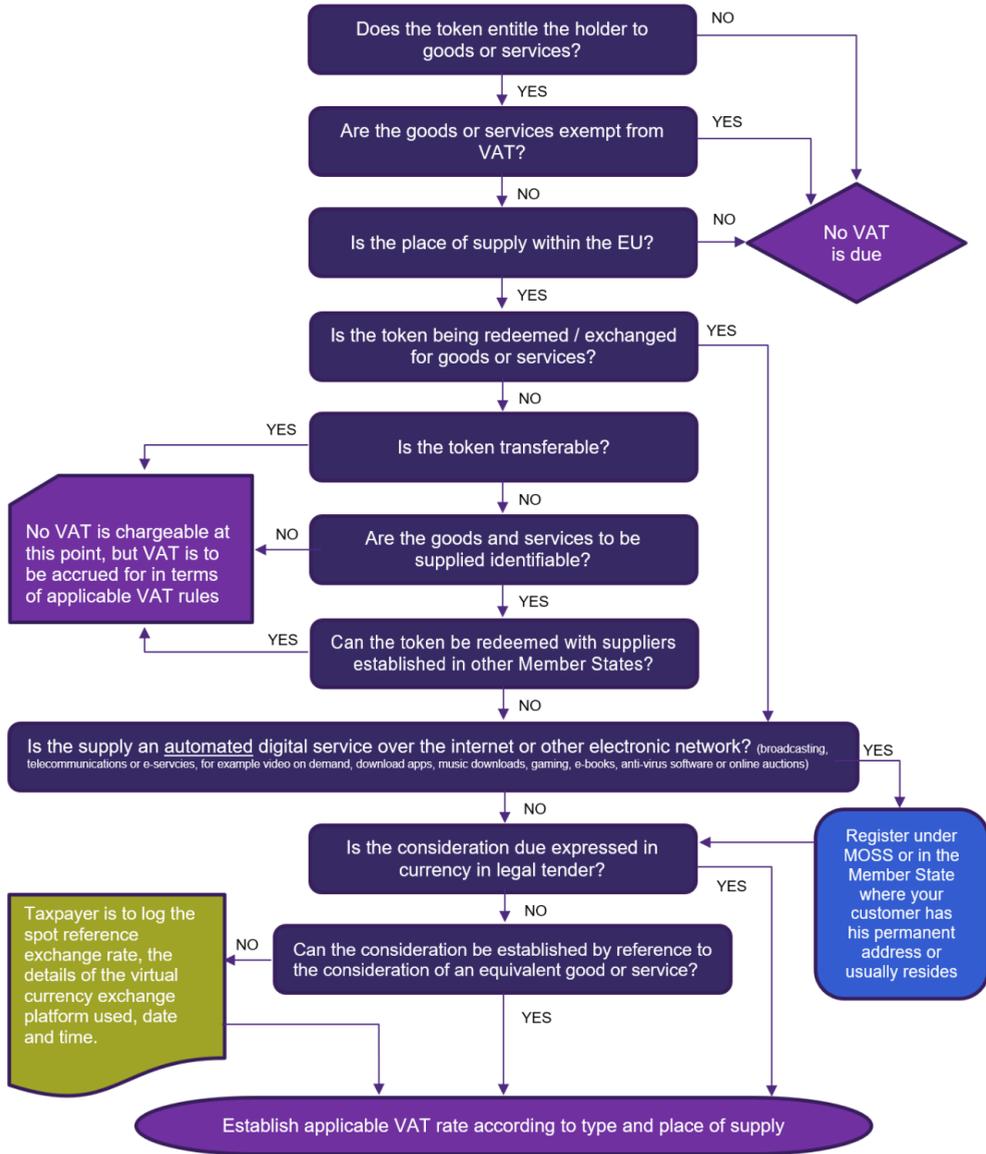


Diagram 4 - VAT T<sup>3</sup>

**5.2.2 Borderless taxation - a proposal for a cohesive global digital-ecosystem tax**

The taxation of the digital economy as well as the fight against money laundering and funding of terrorism has been high on the agenda for years. Various attempts at addressing same have been made by national, regional and global organisations. Intrinsically, the taxation of the digital economy is nothing more than an evolution of

the global economy concerns levied by US president John F. Kennedy in his 1961 address to the US Congress on Taxation:

Recently more and more enterprises organised abroad by American firms have arranged their corporate structures aided by artificial arrangements between parent and subsidiary regarding intercompany pricing, the transfer of patent licensing rights, the shifting of management fees, and similar practices [...] in order to reduce sharply or eliminate completely their tax liabilities both at home and abroad.<sup>136</sup>

Placing the global economy within the digital economy paradigm, one cannot help but notice a trend wherein the tax practises of multinationals in 1961 are now common practice with SMEs and start-ups, dictated by the expectations of society to have fingertip access to their requirements, and not necessarily driven by tax planning considerations. Society has evolved from a brick and mortar community seeking to eliminate trade barriers to an internet-access society. The era of the internet of things (IoT) and artificial intelligence (AI) revolution is here, pulling down all kinds of trade borders, interconnecting things used on a daily basis and allowing them to take autonomous decisions, leading to tax implications which go well beyond the tax and import duty concerns of the 1928 League of Nations which led to the evolution of modern-day tax treaties.

The application of distributed ledger technology to the global economy is nothing more than an evolution in line with the dictates of society. It cannot be constrained to borders, much like the principles expounded by Dr Arvid Pardo in his 1967 address to the General Assembly of the United Nations<sup>137</sup> calling for the seabed to constitute part of the common heritage of mankind.

In the recent context of the economic crisis, effective actions to counteract tax abuses are an important part of all states' efforts to meet their basic minimum obligations for economic, social and cultural rights, to protect vulnerable groups and to justify any regressive measures in relation to the total available resources.<sup>138</sup>

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136 John F. Kennedy, 'Special Message to the Congress on Taxation' (20 April 1961) 136 <[www.presidency.ucsb.edu/ws/?pid=8074](http://www.presidency.ucsb.edu/ws/?pid=8074)> accessed 26 June 2018

137 Arvid Pardo, 'Examination of the question of the reservation exclusively for peaceful purposes of the sea-bed and the ocean floor, and the subsoil thereof, underlying the high seas beyond the limits of present national jurisdiction, and the use of their resources in the interests of mankind' (United Nations General Assembly, 1 November 1967) UN 1967-22, 1515-92 <[http://www.un.org/en/ga/search/view\\_doc.asp?symbol=A/RES/2340\(XXII\)](http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/2340(XXII))> accessed 26 June 2018

138 International Bar Association's Human Rights Institute (IBAHRI), 'Tax abuses, Poverty and Human Rights' (2013) <[www.ibanet.org/Article/NewDetail.aspx?ArticleUid=4A0CF930-A0D1-4784-8D09-F588DCDDFEA4](http://www.ibanet.org/Article/NewDetail.aspx?ArticleUid=4A0CF930-A0D1-4784-8D09-F588DCDDFEA4)> accessed 26 June 2018

Putting the afore-cited excerpt from the 2013 report of the International Bar Association's Human Rights Institute (IBAHRI) into perspective of the OECD work on the BEPS project and its contribution to address the needs of vulnerable groups in certain economies, one cannot help but appreciate that all the transfer pricing work proposed in Actions 8, 9 and 10 of the BEPS project may not have had the said 'vulnerable groups' as the primary focus. The same can be said of the rules<sup>139, 140</sup> proposed on the 21 of March 2018 as part of the Fair Taxation of the Digital Economy project; the reference to 'fair' taxation has the European single market at heart, a far cry from the vulnerable groups contemplated in the cited IBAHRI report.

ICOs are following the availability of funds rather than tax treaty benefits. In this space, a shift from commercially motivated structures to socio-economically motivated ones is being experienced. The mobile money micro-economy that has developed in Africa over the past decade, where millions of Africans who perhaps cannot afford a computer are today using their mobile phone to pay utility bills and send money by debiting their mobile phone account, is a clear example of this.<sup>141</sup> Digital developments could result in greater equality and widespread prosperity.

Within this context there are lessons to be learnt. Just like the credit/debit card era was given a miss in Africa, disintermediating the banks from the payment process and using mobile telephony companies<sup>142</sup>, virtual currencies are disintermediating the traditional centre of trust process, making the administration of the traditional tax system more complex. Given the volume and scale of virtual currency transactions, an automated global tax solution is necessary. The globality of the decentralised digital economy mandates a decentralised node-free tax system which is not conditioned nor grounded to one jurisdiction.

Drawing on the principles applied in establishing the seabed as the common heritage of mankind, a number of parallels can be drawn to the digital ecosystem; a global decentralised digital community which cannot be pegged down to one jurisdiction is relied upon for the livelihood of millions of people, and which in the interests of society at large cannot afford any downtime. The digital ecosystem could be said to constitute a 'common interest of mankind'.

Within this context, it is being proposed that a transnational body, possibly the International Monetary Fund, be designated with the administration of a **global digital-ecosystem tax** wherein one tax rate would be applicable to all digital

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139 Commission, 'Proposal for a Council Directive laying down rules relating to the corporate taxation of a significant digital presence' COM (2018) 147 final

140 Commission, 'Proposal for a Council Directive on the common system of a digital services tax on revenues resulting from the provision of certain digital services' COM (2018) 148 final

141 Fintech Africa, 'M-Pesa: Your wallet just got digital' (2017) <<https://2017.fintech-africa.com/companies/m-pesa>> accessed 26 June 2018

142 *ibid* 141

transactions. This would enable a centralised tax administration process to tax the digital ecosystem, drawing on efficient economies of scale to reduce the bill in adapting the existent decentralised digital tax administrative network, split amongst national tax authorities. The agreed tax rate would be coded into the smart contract governing the issuance of the virtual currency and ensuing transactions, thereby addressing concerns that may be levied by operators and merchants burdened with the chore of acting as tax collecting agents.

The designated supranational body administering the process could even issue a proprietary digital coin on a native DLT platform which could be used as a medium of tax payment to avoid difference in exchange issues, setting a possible IMF coin as a proprietary monetary base for the payment of the said digital-ecosystem tax. The value of the said IMF coin could be pegged as a basket of currencies in direct proportion to the respective jurisdictions' agreed entitlement.

Ideally, digital identity verification should be mandated in the issuance of such IMF coin, as well as all virtual currencies, an exercise which would also address cohesively the fight against money laundering and funding of terrorism, and act as a catalyst to resolve the compliance burdens introduced by the various uncoordinated initiatives as the EU directives to strengthen the administrative cooperation amongst Member States in the field of taxation<sup>143</sup> (DAC1 to DAC5), FATCA<sup>144</sup>, CRS<sup>145</sup> and the register of beneficial owners introduced by the fourth Anti-Money Laundering Directive<sup>146</sup> (4<sup>th</sup> AMLD).

Tax revenue could be allocated to a common solidarity fund or allocated according to an agreed metric driven by principles of solidarity to support vulnerable groups, irrespective of where the business is carried out, whilst allowing national tax systems to continue running the respective direct and indirect tax systems for the economic activities supporting the aforesaid global digital ecosystem on the basis of the

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143 Council Directive 2011/16/EU of 15 February 2011 on administrative cooperation in the field of taxation and repealing Directive 77/799/EEC [2011] OJ L 64 (DAC1); DAC2 (n 115); Council Directive (EU) 2015/2376 of 8 December 2015 amending Directive 2011/16/EU as regards mandatory automatic exchange of information in the field of taxation [2015] OJ L 332 (DAC3); Council Directive 2016/881/EU of 25 May 2016 amending Directive 2011/16/EU as regards mandatory automatic exchange of information in the field of taxation [2016] OJ L 146 (DAC4); Council Directive 2016/2258/EU of 6 December 2016 amending Directive 2011/16/EU as regards access to anti-money-laundering information by tax authorities [2016] OJ L 342 (DAC5)

144 FATCA (n 116)

145 DAC2 (n 115)

146 Directive (EU) 2015/849 of the European Parliament and of the Council 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 [2015] OJ L 141

established indirect tax supply rules and place of effective management and permanent establishment direct tax rules.

The proposal would however need to address the negative hallmarks of the 2018 EU proposal for a Fair Taxation of the Digital Economy package<sup>147</sup> and the 2014 EU proposal for a financial transaction tax<sup>148</sup>, crucially the necessity for the principle to be agreed to at a global level<sup>149</sup>; a feat which, given the recent success of the multilateral treaty resulting from Action 15 of the BEPS project<sup>150</sup>, seems to be achievable.

The recognition of the digital ecosystem as pertaining to the common interest of mankind finds comfort in the conclusions drawn by the financial ministers and central bank regulators of the G20 member countries in the March 2018 Argentinian summit. Seemingly, ‘two positions stood out: one in favour of regulation and work on cyber security, and the other suggesting that given that there exist calls for regulation and greater cybersecurity, the international payment system must be improved.’<sup>151</sup> The G20 financial leaders acknowledged that crypto-assets have ‘the potential to improve the efficiency and inclusiveness of the financial system and the economy’, and pledged to ‘continue [their] work for a globally fair and modern international tax system and welcome international cooperation and pro-growth tax policies’ within the context of a ‘call on international standard-setting bodies (SSBs) to continue their monitoring of crypto-assets and their risks, according to their mandates, and assess multilateral responses as needed.’<sup>152</sup>

This followed the OECD interim report presented to the said G20 grouping analysing the impact of the digitalisation of the economy on the international tax system, acknowledging that ‘technologies like blockchain give rise to both new, secure methods of record-keeping while also facilitating cryptocurrencies which pose risks to the gains made on tax transparency in the last decade.’<sup>153</sup> To this end, in its report,

147 *EU Fair Taxation of the Digital Economy* (n 135)

148 Commission, ‘Proposal for a Council Directive implementing enhanced cooperation in the area of financial transaction tax’ COM (2013) 071 final

149 Jim Brunsten, ‘EU financial transaction tax progress stalls’ (Financial Times, 5 June 2016) <[www.ft.com/content/ab4ad04c-29ae-11e6-8ba3-cdd781d02d89](http://www.ft.com/content/ab4ad04c-29ae-11e6-8ba3-cdd781d02d89)> accessed 26 June 2018

150 *BEPS* (n 113), Action 15

151 G20 Argentina 2018, ‘Argentine Treasury Minister and the President of the Central Bank highlight constructive dialogue at the G20 finance ministerial’ (20 March 2018) <<https://qa-g20.argentina.gob.ar/en/press/press-room/press-releases/argentine-treasury-minister-and-president-central-bank-highlight>> accessed 26 June 2018

152 G20 Argentina 2018, ‘Building consensus for Fair and Sustainable Development’ (19-20 March 2018) Finance Ministers & Central Bank Governors Communiqué <[https://back-g20.argentina.gob.ar/sites/default/files/media/communiqué\\_g20.pdf](https://back-g20.argentina.gob.ar/sites/default/files/media/communiqué_g20.pdf)> accessed 26 June 2018

153 OECD Secretary-General, ‘Report to G20 Finance Ministers and Central Bank Governors, Buenos Aires, Argentina’, (March 2018) <[www.oecd.org/tax/OECD-Secretary-General-tax-report-G20-Finance-Ministers-Argentina-March-2018.pdf](http://www.oecd.org/tax/OECD-Secretary-General-tax-report-G20-Finance-Ministers-Argentina-March-2018.pdf)> accessed 26 June 2018

the OECD committed to develop practical tools and cooperation in the area of tax administration to examine the tax consequences of new technologies (e.g. cryptocurrencies and blockchain distributed ledger technology).

The proposal for a global cohesive tax solution addressing the digital ecosystem on the basis of it being in the common interest of mankind resonates the theme of the Argentinian G20 summit ‘Building consensus for Fair and Sustainable Development’ and the commitment, seconded by the OECD, ‘to work together to seek a consensus-based solution by 2020, with an update in 2019.’

The herein proposed cohesive digital-ecosystem tax project could form part of the recommendations being put forth following the G20 Argentina 2018 meeting of Finance Ministers and Central Bank regulators inviting recommendations for a harmonised approach towards global regulation of crypto currencies, ‘Seeking a strong and sustainable financial system’ and ‘Promoting an inclusive global tax system’<sup>154</sup>; a second take on the BEPS Action 1 project.<sup>155</sup>

### 5.3 Concluding remarks

John Donne’s proverbial phrase ‘No man is an Iland [island]’<sup>156</sup> befits the call for action to have a fair system of taxation for the digital economy. Regulators, practitioners and industry are to work cohesively in a supranational grouping geared towards the growth of the digital ecosystem to address arbitrage in national tax rules, regulatory definitions, volatility, transparency efforts, industry standards and other ancillary aspects.

Token offerings are not the hand of the devil. Responsible ICO issuers can roll out an efficient, safe and novel funding method which could bring tremendous benefits to the community in the form of investment opportunities as well as innovative products to service the community. However, practitioners and tax payers require certainty in the tax treatment of transactions dealing with distributed ledger technologies. Whilst national tax authorities are issuing and publishing written guidelines, particularly addressing bitcoin dealings, a supranational cohesive effort is necessary, much in the same way as the EU’s amendment of the Fourth Anti-Money Laundering Directive 2015/849, introduced on 30 May 2018 by way of Directive 2018/843 (the ‘5<sup>th</sup> AMLD’), extending the scope of the Directives preventing the use of the financial system for the purposes of money laundering or terrorist financing to include

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154 G20 Argentina 2018, ‘First meeting of the Finance Ministers and Central Bank Governors of 2018: A window to the future of the global economy’ (19-20 March 2018) <[https://back-g20.argentina.gob.ar/sites/default/files/media/finance\\_ministerial\\_highlights.pdf](https://back-g20.argentina.gob.ar/sites/default/files/media/finance_ministerial_highlights.pdf)> accessed 26 June 2018

155 BEPS (n 113), Action 1

156 John Donne, *Devotions Upon Emergent Occasions and Seuerrall Steps in my Sicknes - Meditation XVII*, (printed by A. M. for Thomas Iones 1624), p 31

providers engaged in exchange services between virtual currencies<sup>157</sup> and fiat currencies as well as custodian wallet providers.

The 5<sup>th</sup> AMLD delivered clarity on an important compliance issue setting a transparent level playing field amongst virtual currency businesses, removing incongruities between those operating in a compliant manner and those reluctant to adopt transparent anti-money laundering processes. The said initiative is laudable, and it is recommended that transactions amongst virtual currencies, which may not necessarily involve exchange with fiat currencies, be included within the scope of the next iteration of the AMLD.

Ethics, knowledge and education are key. The innovative ideas flowing from industry on the application of technology to everyday processes should constitute the platform for an open forum between industry specialists and competent bodies to share knowledge, instil ethics and deliver clear and scalable regulatory solutions. The EU's Capital Markets Union project<sup>158</sup> is the best suited platform, as an enabler for the continued growth of the digital economy, to set a solid accessibility to finance regulatory framework for ICO token offerings, harnessing regulatory, technological, fiscal, financial, transparency and consumer (investor) protection considerations.

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157 Defining 'virtual currencies' as 'a digital representation of value that is not issued or guaranteed by a central bank or a public authority, is not necessarily attached to a legally established currency and does not possess a legal status of currency or money, but is accepted by natural or legal persons as a means of exchange and which can be transferred, stored and traded electronically'; Council Directive (EU) 2018/843 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 [2018] OJ L 156/43, art 3(18)

158 European Commission, 'Capital markets union: A plan to unlock funding for Europe's growth' <[https://ec.europa.eu/info/business-economy-euro/growth-and-investment/capital-markets-union\\_en](https://ec.europa.eu/info/business-economy-euro/growth-and-investment/capital-markets-union_en)> accessed 26 June 2018