Accounting and Taxation of Cryptoassets

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Cryptoassets have attracted significant and growing attention from consumers, regulators and markets globally during recent years.

We observe that the current accounting frameworks all over the world, at least at first sight, lack any clear guidance on what accounting treatment may be acceptable for cryptoassets and in particular for cryptocurrencies. The same can be said for taxation, although most countries have issued some basic guidance over the past few years, there is still substantial ambiguity on several important questions about the taxation of cryptoassets and no international approach has been applied.

In this paper, we will examine different possibilities of how to account for the new phenomena of cryptoassets under IFRS, local European Commercial Code rules and tax rules³.

The authors of this paper are convinced that any recognition and measurement approach for cryptoassets should bear in mind that cryptoassets are a cross-border and international phenomena and therefore should be addressed accordingly, so our accounting discussions in this paper are meant as a global approach.

We will substantiate our view that the application of existing accounting standards may provide inappropriate outcomes from the viewpoint of relevant financial reporting and, we think that local as well as international standards may be urgently amended to reflect the economic substance of cryptocurrencies.

Relevant organizations and authorities are urged to issue needed guidance on the proper accounting, reporting and tax treatment for entrepreneurs and investors that use cryptoassets.

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We should be aware that new technical phenomena like blockchains will go on to challenge authorities that set accounting guidelines and probably the speed and the variations of the new technical phenomena will increase in the upcoming years with IOT and AI being around the corner.

We also refer to P8_TA-PROV (2019) 240 (Report on financial crimes, tax evasion and tax avoidance of the European Parliament resolution of 26 March 2019 on financial crimes, tax evasion and tax avoidance (2018/2121(INI))) which:

asserts that existing tax rules are often unable to keep up with the increasing speed of the economy;

recalls that current international and national tax rules were mostly conceived in the early 20th century;

asserts that there is an urgent and continuous need for reform of the rules so that international, EU and national tax systems are fit for the new economic, social and technological challenges of the 21st century;

notes the broad understanding that current tax systems and accounting methods are not equipped to keep up with these developments and ensure that all market participants pay their fair share of taxes⁴.

Keywords: cryptoassets, Tokens, decentralized and centralized networks, blockchain, cryptocurrency, initial coin offering, entrepreneurial finance, crowdfunding, equity financing, monetary policy, network effects.

⁴<u>http://www.europarl.europa.eu/cmsdata/162244/P8_TA-PROV(2019)0240.pdf</u> page 6 of 76 pages.

Contents

| 1. | . In | troduction | 6 |
|----|------|--|----|
| 2. | . н | ow to define blockchain and cryptoassets | 7 |
| | 2.2 | Defining a cryptoasset? | 7 |
| | 2.3 | Difference between Tokens and coins | 7 |
| | 2.4 | What are cryptoassets for? | 8 |
| | 2.5 | Crowdfunding, blockchain, and cryptoassets | 8 |
| | 2.6 | The blockchain-based crowdfunding disruption | 9 |
| | 2.7 | Token Offerings in 2017 and 2018 (ICO, STO,) | 9 |
| 3. | . A | ccounting for cryptoassets | 11 |
| 4. | . M | laterial accounting concepts to be considered | 12 |
| | 4.1 | The objective of general-purpose financial reporting | 12 |
| | 4.2 | Substance over form principle | 13 |
| | 4.3 | The true and fair view reporting principle and the importance of disclosures | 14 |
| | 4.4 | Recognition and derecognition of assets and liabilities. | 15 |
| 5. | . Ta | ax reporting | 16 |
| | 5.1 | Income taxes | 16 |
| | 5.2 | Value added tax | 16 |
| | 5.3 | Missing guidance on issues concerning cryptoassets | 16 |
| 6. | . Cl | lassification of cryptoassets | 18 |
| | 6.1 | Distinction between centralized and decentralized business ecosystems (networks) | 18 |
| | 6.2 | Centralized network Tokens | 18 |
| | (a | i) Security Tokens | 19 |
| | (b | o) Consumer Tokens | 20 |
| | ba | a) Voucher Tokens to be redeemed with the Token Issuer | 20 |
| | (c | e) Payment Tokens | 21 |
| | 6.3 | Decentralized network Tokens | 21 |
| | 6.4 | Change from centralized networks to decentralized networks | 22 |
| 7. | . A | ccounting and Tax implications for Security Tokens | 23 |
| | 7.1 | Accounting for Security Tokens | 23 |
| | (a | a) Accounting for Equity and Debt Tokens | 23 |
| | (b | b) Accounting for hybrid financial instruments (incl. Revenue Tokens) | 24 |
| | 7.2 | Taxes on Security Tokens | 25 |
| | E۶ | xample 1: Revenue Token with profit-sharing arrangements | 26 |

| 8. | Acco | ounting and Tax implications for Consumer Tokens in centralized networks | 27 |
|------------------|--------------|--|----------|
| 8 | 3.1 | Accounting for Consumer Tokens | 28 |
| | (a) Issue | Recognition and presentation in accordance with local accounting rules for the Token er 28 | |
| | (b) | Measurement at the following balance sheet dates | 29 |
| | (c) | Redemption of the Tokens | 29 |
| | (d) acco | At the time of the sale in case the Token Seller is a business organization establishing in ounts according to IFRS | ts 29 |
| 8 | 3.2 | Income tax effects for the sale of Consumer Tokens | 29 |
| 8 | 3.3 | VAT tax implications for Voucher Tokens | 29 |
| | (a) voue | Council Directive (EU) 2016/ (1965) as of 27 June 2016 with respect to the treatment o chers | of 30 |
| | (b) | Definition of electronically provided supplies | 31 |
| | (c) | Single-Purpose versus Multi-Purpose Voucher | 32 |
| | (d) | Administrative burden in connection with multi-purpose vouchers | 33 |
| 8 | 3.4 | EXAMPLES for Consumer Token Sales | 34 |
| | Exar | nple 2: TOMBACOIN (an example of a Voucher Token): | 34 |
| | (a) | Legal analysis and qualification for tax purposes of the TOMBACOIN | 34 |
| | Exar | nple 3: RINOQ (Consumer Token): | 34 |
| | (b) | Legal analysis and qualification for accounting and tax purposes of the RINOQ Token: . | 35 |
| 9. Pay | Acco ment | ounting and taxes for cryptocurrency classified as coins (decentralized networks) and for Tokens | 36 |
| Ģ | 9.1 | How to account for cryptocurrencies? | 36 |
| | (a) | Should cryptocurrencies be accounted for as cash? | 36 |
| | (b) | Should Coins be accounted for as financial instruments? | 37 |
| | (c) Othe | Should coins be accounted for as intangible assets under intangibles – Goodwill and er? 38 | |
| | (d) | Should Coins should be accounted for as inventory/other assets? | 38 |
| (| 9.2 | Tentative agenda decision of the IFRS Interpretations Committee | 39 |
| (| 9.3 | Our recognition and measurement approach | 40 |
| Ç | 9.4 | Examples showing that the IAS 38 measurement approach is at least questionable | 42 |
| Ç | 9.5 | Accounting for Payment Tokens in centralized networks | 42 |
| 10. | Disc | losure requirements for cryptoassets | 43 |
| 11. | Тах | effects for cryptocurrency transactions | 44 |
| - | 1.1 | Income tax reporting | 44 |
| - | 1.2 | VAT reporting for cryptocurrencies | 45 |
| 12. | Add | tional taxable events for cryptoassets (like airdrops, forks, giveaways) | 46 |

| 12.1 | Bounty Tokens and airdrops4 | 16 | | | |
|---|---|-----|--|--|--|
| 12.2 | Forks happen within decentralized Token ecosystems4 | 7 | | | |
| (a) | Hard fork Tokens received within the private sphere4 | 7 | | | |
| Example 4: Fork of the Bitcoin blockchain | | | | | |
| (b) | Hard fork Tokens received within the business sphere4 | 8 | | | |
| 12.3 | Token swaps4 | 8 | | | |
| 12.4 | Staking and Masternodes4 | 19 | | | |
| 13. Actions to be taken | | | | | |
| 13.1 | Outlining a unified recognition and measurement accounting standard for cryptocurrencie 50 | es | | | |
| 13.2 | Other accounting issues to be addressed5 | 60 | | | |
| 13.3 | Addressing open tax questions for cryptoassets5 | 50 | | | |
| (a) | VAT implications for Voucher Tokens5 | 51 | | | |
| (b) | Do cryptocurrencies always qualify as property?5 | 51 | | | |
| (c) | Guidelines for VAT implications of corporate investors using cryptoassets exchange | - 1 | | | |
| platforms | | | | | |
| (d) | Harmonisation of income tax issues for Tokens within the EU | 1 | | | |

1. Introduction

Blockchain technology is supposed to be one of the most important technical advancements in the modern world. This technology will probably have impacts as huge and enormous as the internet and the telephone. New products and services derived from blockchain technology have the potential to revolutionize entire categories of industry – including government records, title and asset ownership, digitalization and encryption of medical records, digital identity, trading, clearing and settlement, secure voting systems and many others.

Blockchain technology is a newly created medium and operating system for anything of value and allows for crypto/digital assets (herein also referred to as "Tokens") to be programmable.

A recent <u>World Economic Forum report</u>⁵ predicts that by 2025 10% of GDP will be stored on blockchains or blockchain-related technology.

By virtue of increasing market acceptance and penetration of cryptoassets, the cryptoasset industry has witnessed a significant growth in recent years. According to Frost & Sullivan, the market size of the global cryptoasset industry in terms of revenue increased from USD 0.1 billion in 2013 to USD 13.2 billion in 2017, representing a CAGR of 230.8%. The popularity of cryptoassets has drawn an everincreasing number of people to open accounts in exchanges to trade cryptoassets despite the fluctuation of the market price of cryptoassets. For instance, Coinbase, one of the global leading cryptocurrency exchanges, has experienced a surge in its user number. According to Frost & Sullivan, the total number of Coinbase accounts grew significantly from approximately USD 0.5 million in 2013 to approximately USD 13.3 million in 2017, and as of June 30, 2018, Coinbase had managed over 20 million user accounts, reflecting the general acceptance of Bitcoin and other cryptocurrencies such as Bitcoin Cash, Ether and Litecoin.⁶

Neither for the recognition, derecognition and measuring of cryptoassets (including cryptocurrencies), nor for the recording of transactions of cryptoassets do authoritative interpretations or rulings exist in most countries or from IFRS/US GAAP accounting setting bodies. Although use and acceptance of cryptocurrencies as a means of payment is not yet widespread, the increasing volume of transactions using cryptoassets i.e. as a capital-raising method indicates the current need to develop accounting guidance addressing the recognition, measurement, presentation, and disclosure of digital assets and related transactions.

Until further specific guidance is issued it is necessary to obtain a detailed understanding of the cryptoasset and use of blockchain being considered. In order to determine the most appropriate accounting treatment the following steps should be applied:

- **STEP 1** Understand the environment of the blockchain (decentralized/centralized).
- **STEP 2** Understand the rights associated with the cryptoasset.
- **STEP 3** Identifying and applying the appropriate commercial and tax accounting rules.

 ⁵ http://www3.weforum.org/docs/WEF_GAC15_Technological_Tipping_Points_report_2015.pdf#page=24
⁶ http://www.hkexnews.hk/APP/SEHK/2018/2018092406/Documents/SEHK201809260017.pdf#page=193&zoo
m=auto,-14,354

2. How to define blockchain and cryptoassets

2.1 The vision of blockchain technology

Blockchain technology (distributed ledger technology) offers a decentralized accounting method for the verification and recording of transactions of digital values/cryptoassets. Information stored using this technology offers a high level of protection against counterfeiting and duplication, so that with their help markets can be organised securely. It offers a solution to the fundamental problem that digital "representatives" of goods could in principle be generated and transmitted as often as required ("double spending issue"). Blockchain technology creates an unchangeable record, furthermore, the record's authenticity can be verified by the entire community using the blockchain instead of a single centralized authority.

Tokens based on DLT technology can be created, transferred or destroyed. These Tokens are priced based on supply and demand on exchanges like the capital market (so-called crypto exchanges). Since the recording of these Tokens by DLT technology is based on cryptographic technologies, the term "cryptoassets" was coined for such DLT-based digital goods.

2.2 Defining a cryptoasset?

Cryptoassets is used as a broad term within this paper, and the term 'Token' is used to denote different forms of cryptoassets. This allows us to focus on the functions of different types of cryptoassets while also using it as a neutral term that does not denote a direct comparison with fiat currency/real assets.

From an economic point of view, these cryptographically secured digital representations (Tokens) - present immaterial representations of defined (asset) claims or rights or also document various transfers of assets or rights. For example, there are Tokens that only have the function of a means of payment. Other cryptoassets - Tokens - grant special assets rights and either have no payment function at all or are used as a means of payment within a specified community or, in addition to another function, also has a means of payment function (hybrid Tokens).

Neither the generation nor the transfer of cryptoassets takes place in the same way for all digital assets. What all these cryptoassets have in common, however, is that their generation and transmission is automated. Cryptoassets can be created in two ways. On the one hand, they can be decentralized as in with the Bitcoin blockchain, where bitcoins are created by many network participants by making computer power available. Here the generation of the cryptoassets represents a reward for services provided on the network and is an integral part of the network consensus algorithm. On the other hand, cryptoassets can be centrally generated by one project initiator. By designing smart contracts, project initiators can sell or otherwise allocate Tokens through online offerings.

2.3 Difference between Tokens and coins

Cryptoassets termed coins are used as native currency on its own blockchain/DLT – bitcoin, litecoin, dogecoin, ether on Ethereum, waves on WAVES, XRP on Ripple⁷ etc.

A Token is any cryptoasset based on top of an underlying blockchain and therefore, on top of an underlying coin i.e. any ERC-20 Tokens based on top of the Ethereum blockchain and the ether coin, or any Token based on the WAVES blockchain and the waves coin.

⁷ Big letters are used for the blockchain, small letters are used for the coins.

2.4 What are cryptoassets for?

Tokens offer a better way of circulating value between businesses and their customers and ensure that each of them gets a better deal than if they had made the transaction in cash. In the business realm, Tokens are used as units of value that an organization creates to self-govern its business model, and empower its users to interact with its products, while facilitating the distribution and sharing of rewards and benefits to all its stakeholders. This is because a well-crafted Token ecosystem can incentivize customers to interact with a business in whatever ways is most valuable to them besides the purely financial aspect. In this kind of insular, self-sufficient cycle, it doesn't matter that cash is absent, because both sides of the table get what they need.

In decentralized business ecosystems (also termed decentralized networks) Tokens are required to create economically valuable business models directly or indirectly via the ecosystems they enable.

These business ecosystems can be decentralized blockchain-based, but Tokens can also be used to transfer value without a decentralized ecosystem⁸.

The term *business ecosystem* as it is applied in this paper includes all forms of blockchain-based and Token-enabled economies. Business ecosystems can be defined as an economic community or network formed by interacting organizations and individuals — the organisms of the business world. The community produces goods and services of value to customers, who are themselves members of the ecosystem/network.

As cryptoassets vary significantly in the rights they grant their owners, as well as in their actual and potential uses, cryptoassets can be used for several purposes:

- As a means of exchange, usually functioning as a decentralised tool to enable the buying and selling of goods and services, or to facilitate regulated payment services.
- For investment purposes, with firms and consumers gaining direct exposure by holding and trading cryptoassets, or indirect exposure by holding or trading financial instruments that reference cryptoassets.
- To support capital-raising and/or the creation of decentralised networks through Token Sales or other distribution mechanisms.
- Etc.

2.5 Crowdfunding, blockchain, and cryptoassets

Initial Coin Offerings (ICO) also termed Token Sales represent an evolution of the crowdfunding phenomena deploying blockchain concepts and cryptographic technologies by publicly selling cryptoassets to finance a project or company.

As within crowdfunding, the cryptoassets – Tokens – sold, can represent the transfer of different rights in economic terms. If a Token represents the pre-sale of a service (including the right to participate in a business ecosphere) or the pre-sale of a product, it resembles reward-based crowdfunding with the Token representing the transferable title to the service or the product respectively. Alternatively, a Token Sale can be structured as investment crowdfunding with Tokens representing shareholder rights, claims for repayment or profit participation rights (equity-based crowdfunding resp. Security Token Offering (also referred to as STO). Also, donation-based crowdfunding is possible by doing a Token Sale.

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2.6 The blockchain-based crowdfunding disruption

Peer-to-peer crowdfunding was originally proposed to disrupt the early-stage financing for start-ups and small and medium-sized companies. Massive democratization of investing as well as the wiping out of the Venture Capital industry was already envisaged back in 2005.

Ten years later it became evident that only *reward-based* crowdfunding concepts as established by platforms such as *Kickstarter* or *Indiegogo* succeeded and successfully developed global pre-sale campaigns mainly for hardware companies.

Compared to the huge volume and global reach of Kickstarter and Indiegogo, investment/equity crowdfunding (crowd investing) never really worked on a global scale. Cross-border deficiencies resulting from a regionally fragmented legislation is one of the main reasons, but also the missing liquidity or trading facilities for different investment vehicles (i.e. subordinated loans) has been a major reason for the missing success. Only a limited part of the crowd can afford to and is willing to make long-term investments without any possibility for a short- or medium-term exit. A further issue of the current crowdfunding concepts (including reward based) is the involvement of payment intermediaries resulting in substantial transactions fees for any crowdfunding campaigns.

By using the blockchain technology, cryptoassets – Tokens – become fungible and tradeable and therefore create a liquidity never experienced before in crowdfunding.

2.7 Token Offerings in 2017 and 2018 (ICO, STO,)

In total, 537 Token Offerings with a total volume of more than USD 20 billion⁹ were registered in 2018. In comparison, in 2017 there were a total of 552 Token Offerings with a volume of just over USD 7 billion. The average size of a single Token Offering doubled from USD 12.8 million to over USD 25.5 million in 2018 compared to 2017. Token Offerings were truly the poster child of the cryptocurrency bubble of 2017.

| Leading ico countries in 2010 (based on funding volume) | | | | | | | |
|---|-------------------|------------|--------------|--|--|--|--|
| Country | Raised USD mn | Closed ICO | Planned ICOs | | | | |
| Cayman Islands | 4,254 | 10 | 16 | | | | |
| British Virgin Islands | 2,227 | 16 | 2 | | | | |
| Singapore | 1,192 | 53 | 52 | | | | |
| USA | 1,092 | 56 | 50 | | | | |
| UK | 507 | 48 | 51 | | | | |
| Switzerland | 456 | 28 | 36 | | | | |
| Estonia | 323 | 31 | 40 | | | | |
| Lithuania | 259 | 6 | 5 | | | | |
| Israel | 226 | 5 | 5 | | | | |
| Hong Kong | 223 | 20 | 15 | | | | |
| Leading ICO countries in 2017 (based on funding volume) | | | | | | | |
| USA | 1 722 | 87 | 40 | | | | |
| Switzerland | 1,462 | 33 | 1 | | | | |
| Singapore | 641 | 35 | 13 | | | | |
| Russia | 438 | 57 | 43 | | | | |
| China | 306 | 14 | 2 | | | | |
| UK | 275 | 26 | 23 | | | | |
| Japan | 195 | 6 | 6 | | | | |
| 0 1 | | | | | | | |
| Canada | 163 | 10 | 5 | | | | |
| Canada Cayman Islands | <u>163</u> 162 | 10 3 | 5 0 | | | | |

Countries with most ICO traction

Key Take-Aways

- USA remains a leading ICO destination, reinforced by clear and firm regulatory requirements (e.g. KYC)
- Within Europe, Switzerland stands out as the ICO capital, but in 2018, UK has gained terrain in terms of volume and numbers
- Across Asia, Singapore is the main ICO hub, followed by Hong Kong
- Cayman Island and British Virgin Islands rank among top ICO countries volume-wise, as they hosted Unicorn ICOs EOS (USD 4.1bn) and Telegram (USD 1.7 bn)
- Other countries not known for being large financial markets also appear among top ICO countries (e.g. Estonia, Lithuania, Israel)
- "Dormant ICOs": In 2017, many planned ICOs did not happen in the end or were not further publicly documented or communicated

⁹ https://cryptovalley.swiss/wp-content/uploads/20180628_PwC-S-CVA-ICO-Report_EN.pdf

Assuming these Token Offerings to be a new "fully unregulated" kind of capital-raising from street investors, they experienced an incredible number of scams and fraud initiatives. So worldwide authorities are now cracking down on this kind of Token Offerings, often referred to as Initial Coin Offerings, which do not comply with the required securities regulations.

In contrast, security Token offerings (STOs) are regulatory-compliant offerings that still involve the sale of cryptoassets to fund new businesses¹⁰.

Although blockchain-based crowdfunding is still in its infancy, we are deeply convinced that Token Sales evidently have all of the attributes needed to enable a huge success for peer-to-peer crowdfunding on a global scale and has the ability to enable European start-ups to raise material amounts of seed capital for the first time.

But there is still a lot of work we must do in order to get it right and to unleash the big potential associated with blockchain technologies. Specific areas of interest are legal perspectives (we finally must resolve the cross-border challenges in Europe) as well as accounting and tax issues around these Token Sales.

¹⁰ https://decryptmedia.com/5311/security-tokentoken-offerings-advantages

3. Accounting for cryptoassets

To date, in most countries no formal accounting pronouncements have been made regarding recognition and measurement of cryptoassets neither on the asset side nor on the liability side.

Those organizations that hold cryptoassets analyse current accounting rules to determine the most appropriate accounting method. As there is a lack of clear guidance for these cryptoassets, there is currently a diversity of views on the accounting options that are considered in determining the appropriate accounting methods for Tokens under current local accounting principles as well as under International Financial Reporting Standards (IFRS).

The nuanced, constantly evolving nature of the cryptoassets phenomenon, presents complex challenges for preparers of financial information. Underlying economic relationships must be understood in their substance, and the best fit found under existing accounting standards. Dealing with cryptoassets accounting requires a detailed understanding of both distributed ledger technology and relevant accounting concepts.¹¹

The issue is even deepened at this time as cryptoassets transactions e.g. Token Offerings are mainly a global issue, and the risk that Token transactions and/or Token Sales are differently qualified in different continents and different countries is evident. Due to the lack of a uniform classification regime for different Token types and structures even on national basis, cryptoassets do have the potential to become a new enabler of cross-border tax structuring, which exploit the non-harmonized international accounting and taxation rules.

One of the primary objectives of increased adoption of International Financial Reporting Standards (IFRS) and the ongoing convergence initiative between IFRS and U.S. Generally Accepted Accounting Principles (U.S. GAAP) is to enhance comparability of financial reporting on a global scale. Information about a reporting entity is more useful if it can be compared with a similar information about other entities and with similar information about the same entity for another period or another date. Comparability enables users to identify and understand similarities in, and differences among reporting entities (2.24-2.25)¹². This evident objective cannot be fulfilled now as different accounting guidelines are applied for recognition and measurement of cryptoassets.

¹¹ IFRS # Accounting for CryptoAssets, EY 2018, https://www.ey.com/Publication/vwLUAssets/EY-IFRS-Accounting-for-crypto-assets.pdf

¹² Conceptual Framework for Financial Reporting 2018

4. Material accounting concepts to be considered

In principle, legal, accounting, and tax regulations are technology neutral. When assessing and recording transactions in digital values in accounting and tax law, neither the way in which the transferred rights or values are generated, nor the technology used is important for the time being. Regulations are indifferent as to which kind of technology is involved, e.g. a Postgres Database, Ethereum blockchain or something else. The respective commercial and tax reporting rules and standards are applicable regardless of the underlying technology. It's the economic content of a Token transaction that is relevant, i.e. the rights and obligations embodied in the digital values – Tokens. Principally the form is disregarded for substance and the emphasis is always placed upon economic reality.

Based on this underlying assumption, the Conceptual Framework for Financial Reporting (Conceptual Framework) revised by the International Accounting Standards Board (Board) in March 2018 and its comprehensive set of concepts for financial reporting, should also set the basis for recording of any cryptoasset transaction.

Some of the basic concepts of the Conceptual Framework to bear in mind in recognition and measuring cryptoassets are discussed as follows:

4.1 The objective of general-purpose financial reporting¹³

The primary users of general purpose financial reporting are present and potential investors, lenders and other creditors, who use that information to make decisions about buying, selling or holding equity or debt instruments, providing or settling loans or other forms of credit, or exercising rights to vote on, or otherwise influence, management's actions that affect the use of the entity's economic resources. [1.2]

The primary users need information about the resources of the entity not only to assess an entity's prospects for future net cash inflows but also how effectively and efficiently management has discharged their responsibilities to use the entity's existing resources (i.e. stewardship). [1.3-1.4]¹⁴

¹³ https://www.ifrs.org/-/media/project/conceptual-framework/fact-sheet-project-summary-and-feedback-statement/conceptual-framework-project-summary.pdf



4.2 Substance over form principle

Substance over form is a global accounting and taxation concept which requires that the economic substance of transactions and events is decisive for the recognition and measurement of transactions and events in the financial statements and for tax purposes.

According to The Conceptual Framework for Financial Reporting 2018, if information is to represent faithfully the transactions and other events that it purports to represent, it is necessary that they are accounted for and presented in accordance with their substance and economic reality and not merely their legal form. The substance of transactions or other events is not always consistent with that which is apparent from their legal or contrived form. For example, an entity may dispose of an asset to another party in such a way that the documentation purports to pass legal ownership to that party; nevertheless, agreements may exist that ensure that the entity continues to enjoy the future economic benefits embodied in the asset. In such circumstances, the reporting of a sale would not represent faithfully the transaction entered into (if indeed there was a transaction).

The substance over form concept entails the use of judgment on the part of the preparers of the financial statements in order for them to derive the business sense from the transactions and events and to present them in a manner that best reflects their true essence from the perspective of the specific company. Whereas legal aspects of transactions and events are of great importance, they may have to be disregarded at times in order to provide more useful and relevant information to the users of financial statements.

The principle of substance over legal form is central to the faithful representation and reliability of information contained in the financial statements. By placing the responsibility on the preparers of the financial statements to actively consider the economic reality of transactions and events to be reflected in the financial statements, it will be more difficult for the preparers to justify the accounting of transactions in a manner that does not fairly reflect the substance of the situation.

The recognition and measurement of the Tokens in the tax balance sheet follows the principle of economic content in the same way as in the commercial balance sheet and must therefore again be geared to the purpose of the individual Token.

4.3 The true and fair view reporting principle and the importance of disclosures

IFRS views the fair presentation guideline as one of the most important accounting principles to follow:

Financial statements shall fairly present the financial position, financial performance and cash flows of an entity (IAS 1.15).

- In almost all circumstances, fair presentation is achieved by compliance with the applicable IFRS (IAS 1.17).
- In the extreme rare cases in which management concludes that compliance with a requirement in IFRS would be so misleading that it would conflict with the purpose set out in the Framework, an entity shall deviate from that requirement in accordance with the requirements of paragraph 20 (IAS 1.19) (principle override). It would then have to disclose the deviations from accounting in accordance with the individual rules in a kind of shadow accounting (IAS 1.20d).

Accordingly, the annual financial statements must give a true and fair view of the net assets, financial position and results of operations. Although this principle also applies in the German (dHGB) and Austrian accounting law (öUGB), it is considerably restricted by the principle of prudence. The relevant Articles of the dHGB¹⁵ and the öUGB require that annual financial statements for legal entities must present a true and fair view of the net assets, financial position and results of operations of the reporting company. If this is not possible due to special circumstances (like the prescribed principle of conservatism and prudence), the additional information to satisfy the true and fair requirement shall be provided (only if material) in the notes to the financial statements.

So, disclosures are an integral part to provide a true and fair view of the state of the affairs of a reporting entity, evidently due to the still applicable principle of prudence in some European countries, disclosures are even more important for European companies.

Moreover, with cryptoassets and its many different types and forms, disclosures will get a new boost as probably only the detailed description of the recognition and measurement methods applied for the different kinds of cryptoassets shown in the financial statements will enable the reader to get a true and fair understanding of the economic situation of the reporting unit.

The principle of substance over form has so far not been recognized by IASB or FASB as a distinct principle in their respective frameworks due to the difficulty of defining it separately from other equivalent accounting principles like the given requirement for reliability and faithful representation. So, the IASB Framework requires information to be represented faithfully. The transactions and other events are accounted for and presented in accordance with their substance and economic reality and not merely their legal form.

By applying this rule, any rights or duties associated with specific cryptoassets must be analysed to determine the appropriate characterization of the Token for accounting and tax purposes. The economic functionality of a single Token is decisive for its qualification and classification for accounting (commercial as well as for tax) purposes.

When assessing the economic content of a Token transfer and the rights of a cryptoasset it is important to consider the commercial sense of a transaction:

¹⁵ Article 264 para. 2 dHGB

• What is the economic sense of the transaction (e.g. selling a cryptoasset for less than market value)?

- What rights and liabilities relate to a cryptoasset?
- Has a party recorded a sale but will still be subject to the loss if the asset decreases in value?

Often the legal aspects of the transaction are perfectly valid however to achieve a fair presentation of the financial statements we must adopt the principles of substance over form. Identifying the significant risks and rewards associated with assets and liabilities is the key to establishing the appropriate treatment of transactions.

4.4 Recognition and derecognition of assets and liabilities.

In order to determine the economic substance of an event, it is necessary to identify whether an economic event has given rise to new assets or liabilities or has increased or decreased existing assets and liabilities.

Principally assets and liabilities are defined as follows:

• Assets are rights or other access to future economic benefits controlled by an entity as a result of past transactions or events; [F 4.4(a)]¹⁶

• Liabilities are an entity's obligation to transfer economic benefits controlled by an entity as result of past transactions or events; [F 4.4(b)]

Recognition is the process of incorporating into the balance sheet or income statement an item that meets the definition of an element and satisfies the following criteria for recognition; [F 4.37 and F 4.38]

- There is enough evidence of the existence of the item;
- The item can be measured as a monetary amount with enough reliability.

From a civil law perspective ownership of a cryptoasset, recorded on DLT-technology, is to be assigned to those who, according to the overall picture of the circumstances, can actually exercise control over a cryptoasset on their own responsibility from a will to rule. This is especially true for being the owner of the private cryptographic key.

Where an asset is sold in an outright sale, where all rights and rewards of ownership are transferred and no risks are retained, derecognition (i.e., removal of the asset from the statement of financial position of the transferor) is clearly appropriate. However, where conditions are attached to the transfer, the substance of the transaction must be examined carefully. It may be that each party has access to some of the benefits and is subject to some of the risks. In this case it is important to assess which are the significant risks and rewards, e.g. in property the main rewards are the cash flows likely from its operation and the potential for increases in the value of the asset. The main risks are a decrease in the value and obsolescence.

¹⁶ Conceptual Framework for Financial Reporting 2018

5. Tax reporting

In contrast to accounting there have been already some guidelines issued by most local tax authorities regarding income tax and VAT tax implications for cryptoassets.

5.1 Income taxes

The Austrian Ministry of Finance ruled in 2016¹⁷ that for income tax purposes it would treat cryptocurrency – like Bitcoin - as property, thus subjecting it to income tax treatment and associated reporting requirements. In Germany, there is no official statement referring to income tax implications on a national level yet. Nevertheless, there are several letters from representatives of the German Ministry of Finance in response to inquiries of members of the German parliament stating that cryptoassets should be treated as property like real estate, foreign currencies or precious metals.¹⁸ However, both jurisdictions are lacking guidelines on how to classify different cryptoasset types for tax purposes and what taxation regimes apply accordingly.

5.2 Value added tax

To date, the European Court of Justice (ECJ) has only commented on the VAT treatment of certain transactions in connection with bitcoin, with the initial focus being on the production and trading of bitcoin and the use of bitcoin in general commercial transactions. The decisive factor for the result of the European Court of Justice in in the case of Hedqvist¹⁹ was that the purpose of bitcoin "exclusively" lies in its use as a means of payment.

The ECJ's exemption of Bitcoin was based on (1) the acceptance of Bitcoin by certain economic operators as an alternative to a conventional means of payment and (2) the fact that Bitcoin has no other purpose than that of a means of payment. If these two conditions for a digital asset other than Bitcoin are not met, the ECJ's ruling on Bitcoin cannot be applied. The German Ministry of Finance emphasized this approach in its announcement on February 27th, 2018.²⁰

In case the purpose of a cryptoasset is not exclusively to use it as a means of payment, the economic substance of the cryptoasset should always be investigated since the existing ECJ case decision does not give any further clarification. The same applies to the application of the tax exemption (Article 135, paragraph 1, letter e of the VAT Directive): the rulings of the European Court of Justice in the Hedqvist case cannot be generalised. It cannot be easily deduced from the Hedqvist ruling that any change of a legal currency into any kind of Tokens is exempt from VAT.

5.3 Missing guidance on issues concerning cryptoassets

Federal agencies worldwide have identified the ambiguous tax treatment of virtual property and currency transactions as one of the "most serious problems encountered by taxpayers"²¹, nevertheless only few tax authorities worldwide have yet issued any guidance concerning the tax treatment of the sale of cryptoassets in the course of a Token Sale or on the tax treatment of

¹⁷ https://www.bmf.gv.at/steuern/kryptowaehrung_Besteuerung.html;

¹⁸ German MoF dated 05.01.2018, https://dipbt.bundestag.de/doc/btd/19/003/1900370.pdf, S. 21f.

¹⁹ https://eur-lex.europa.eu/legal-content/DE/ALL/?uri=CELEX%3A62014CJ0264

²⁰https://www.bundesfinanzministerium.de/Content/DE/Downloads/BMF_Schreiben/Steuerarten/Umsatzsteu er/Umsatzsteuer-Anwendungserlass/2018-02-27-umsatzsteuerliche-behandlung-von-bitcoin-und-anderensog-virtuellen-waehrungen.pdf? blob=publicationFile&v=1

²¹ Compare 2008 Annual Report of the IRD National Taxpayer Advocate.

blockchain forks. These are just two examples of quite a lot of open questions around the topic of this new class of assets.

Now practitioners and taxpayers, therefore, are generally left to apply existing tax rules by relying on precedents and rules that provide imperfect analogies to Token issuances.

6. Classification of cryptoassets

In classifying cryptoassets - Tokens - for tax and accounting purposes the following aspects must be considered:

- a) The economic substance of the relationship between any Token Issuer and the Token Holder.
- b) The nature of the digital asset by identifying the rights and obligations associated with the cryptoassets.

6.1 Distinction between centralized and decentralized business ecosystems (networks)

The economic relationship between the Token Issuer (if identifiable) and the Token Holder is relevant for the distinction between **centralized** and **decentralized** business ecosystems.²²

If one of the seven points is fulfilled, a centralized network is established:

- 1. If there is a Token Seller or a group who plays a significant role in the development and maintenance of the asset and its potential increase in value.
- 2. If this person or group retained a stake or other interest in the digital asset such that it would be motivated to expand efforts to cause an increase in value in the digital asset.
- 3. If the promoter raised an amount of funds in excess of what may be needed to establish a functional network, and, if the promoter has already indicated that those funds or funds from the operations may be used to support the value of the Tokens or to increase the value of the enterprise.
- 4. If the Instrument is marketed and sold to the general public instead of to potential users of the network at a price that does not reasonably correlate with the market value of the good or service in the network.
- 5. If a person or an entity, who others are relying on, plays a key role in the profit-making of the enterprise, such that disclosure of their activities and plans would be important to investors.
- 6. If informational asymmetries exist between the promoters and potential purchasers/investors in the digital asset.
- 7. Persons or entities other than the Token Seller exercise governance rights or meaningful influence.

Only if no project owner/Token Issuer can be identified according to the above given list a **decentralized business network** empowered by a cryptoasset/Token is established.

6.2 Centralized network Tokens

The main feature of all Tokens useable within a centralized network (business ecosystem) is <u>the right</u> to access this specific network established and controlled by the Token Issuer. Very often the establishment of such networks is funded by selling cryptoassets upfront during a Token Sale.

²² <u>https://www.sec.gov/news/speech/speech-hinman-061418#_ftnref11</u>

Add-on: Real Asset Tokens also termed as Asset Backed Tokens are digital assets backed by physical assets.²² So such equity Token could just be the digital representation of the stock of a corporation or a debt Token representing the debt investment in a centralized organization.

Very often these Access Tokens **show** additional rights and functionalities which cause them to be classified differently for legal and economic purposes.

Please be aware that most of the Access Tokens are used as means of exchange within the centralized business ecosystems:

Tokens within a centralized network can be described as follows:



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(a) Security Tokens

When cryptoassets grant the right to participate in a centralized network and in addition show features comparable to an ownership stake in an entity like voting rights and rights for a profit sharing of the Token-issuing entity, or any other interest in the success of the future such Tokens qualify legally and economically as Security Tokens.²³

Depending on the exact legal structure of the specific Token agreements such Tokens can represent equity or debt instruments.

Tokens which neither qualify as debt or equity but entitle the Holder to a percentage of the gross revenues from the company are also called Revenue Tokens (also Profit Participation Tokens) for regulatory purposes and qualify as Security Tokens.

If rights like profit participation, repayment of the money, a share in liquidation proceeds and so on are granted, there is always a responsible project owner and therefore a centralized network.

It is irrelevant whether the Token Sale takes place before or after the establishment of the application/network, the Tokens always qualify as Security Tokens.

²³ Investment/Security Tokens: comparable to conventional securities pursuant to Article 4 (1) No. 44 of Directive 2014/65/EU ("MiFID II") conventional debt instruments and equity instruments. This category includes Tokens that represent assets. Such Tokens can represent a debt or equity claim on the Issuer. They promise, for example, a share in future company earnings or future capital flows. In terms of economic function, these Tokens ae therefore analogous to equities, bonds, or derivative financial instruments.

(b) Consumer Tokens

In addition to granting access, some cryptoassets sold provide the owner of the Tokens with a functional benefit in a network. Within this network such Tokens can have different additional rights e.g.:

- 1. The right to contribute to a value-adding action for the network or market that is being built.
- 11. The holding of the Token results in a monetizable reward based on an action by the user (active work).
- *III.* The Token grants the user a value based on sharing or disclosing some data about them (passive work).
- *IV.* The Token Holder is entitled to sell something as part of the business model.
- *V.* The Token entitles the Holder to create a new product or service.
- VI. The Token enables the Token Holder to run a smart contract or to fund an oracle (an oracle is a source of information or data a smart contract can use).²⁴

Such Consumer Tokens, including those Tokens which solely grant the right to actively participate in an application, are also referred to as Utility Tokens²⁵ for legal purposes.

For accounting and tax purposes Consumer Tokens must be further distinguished:

ba) Voucher Tokens to be redeemed with the Token Issuer

If any Token Sale agreement conveys the right for the Token Holder to request - in addition to the right to participate in the business economy - the delivery of goods or services in exchange for the Token (with either the goods or services to be supplied or the identities of the potential suppliers being specified in the terms and conditions of the Token²⁶), the Tokens qualify as Voucher Tokens. Such Voucher Tokens are supposed to be redeemed finally with the Token Issuer.

If such a right for the delivery of goods or services in exchange for the Tokens is granted, there is always a responsible project owner and therefore it is a **centralized network**. Only in **centralized apps/networks** there are Voucher Tokens granting the right to exchange the cryptoassets for services or products offered by a Token Issuer.

In case it is a genuine Voucher Token, meaning the focus of the Token Holder is to consume the goods or the services to be delivered, it is irrelevant whether the Token Sale is done before or after the establishment of the application.

Also, the right to participate in a to-be-established network represents the purchase of the right to a service and qualifies as a Voucher Token²⁷ in case of a pre-sale.

The application of blockchain concepts and cryptographic technologies in these reward-based crowdfunding campaigns result in the issuance of Tokens representing a digital and tradable form of an access right of the Token Holder. Very often such pre-sale Token agreements provide for a

²⁴ Pls refer to <u>https://medium.com/@wmougayar/Tokenomics-a-business-guide-to-Token-usage-utility-and-value-b19242053416</u> for a much more comprehensive lists of possible Utility Tokens

²⁵ <u>Utility Tokens</u>" means on the one hand Tokens designed to provide the Holders of the Tokens with functional benefits in the form of access to a decentralized ecosystem to be build. These Tokens can have special rights, such as: (i) a right of access to a (future) service / product (once developed); (ii) a right to redeem the Token against a utility Token or service / product; (iii) voting rights often intended to affect the functionality of the service or product.

²⁶ Pls be aware if neither the range of services to be provided nor the identities of the potential customers, the Token does not qualify as voucher but constitutes a means of exchange.

²⁷ Voucher Tokens grant the right to a service resp. a delivery from the Token Issuer.

preliminary ERC20 Token which will be exchanged for a specific network Token, after the future blockchain protocol or decentralized network is finished (comparable to the US SAFT agreements).

bb) Work Tokens

Access to the centralized network provides the possibility for the Token Holder to actively engage in the business ecosphere and to earn money by providing services or delivering goods to other Token Holders or to the Token Issuer.

(c) Payment Tokens

Tokens in a centralized application can be understood as special means of payment in a limited community.

Tokens issued with the only purpose being as means of payment on a centralized application/platform and that have to be bought upfront qualify as Voucher Tokens when they are the exclusive means of payment for the planned network as they mainly grant the access right to the business ecosphere.

Only if, in a centralized network, in addition to the Tokens issued by the Token Issuer other Tokens or fiat currencies can also be used to pay within the established app/network, the Tokens issued qualify as Payment Token.

6.3 Decentralized network Tokens

If none of the seven points stated in 6.1. above is fulfilled, no central Issuer can be identified.

Tokens in such decentralized networks are termed as cryptocurrencies or are also referred to as Coins. Examples include Monero, ZCash, Bitcoin, Bitcoin Cash. These are Tokens which are accepted exclusively as a means of payment for transactions between users and/or also between the network operator and users.



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Tokens which are mined/or otherwise generated by smart contracts/ in a decentralized network can never qualify as Access Tokens.

Tokens within a decentralized network can also never qualify as Security Tokens as there is no central entity promising profits.

Work Tokens within a decentralized business ecosphere can provide the owner of the Token with a functional benefit in a blockchain-based network (organised by smart contracts). Within this network, such Tokens can have the same rights as Consumer Tokens within a centralized business ecosphere e.g.:

- 1. A Token enables the user to contribute to a value-adding action for the network or market that is being built.
- **II.** The holding of the Token results in a monetizable reward based on an action by the user (active work).
- *III.* The Token grants the user a value based on sharing or disclosing some data about them (passive work).
- *IV.* The Token Holder is entitled to sell something as part of the business model.
- V. The Token entitles the Holder to create a new product or service
- VI. The Token enables the Token Holder to run a smart contract or to fund an oracle (an oracle is a source of information or data that a smart contract can use).²⁸

As there is no central party promising to accept the Tokens in exchange for rights (access rights), goods and services to be delivered, Work Tokens within a decentralized network never qualify as Voucher Tokens (as defined for tax and accounting purposes).

6.4 Change from centralized networks to decentralized networks

Governance structures can change over the lifetime of networks, so centralized networks can reclassify to decentralized networks if the central authority vanishes. Accordingly, Tokens change their economic functionality over their life span and thus may be re-classified²⁹.

The delimitation between centralized and decentralized networks is very often not as easy as described in this paper. Especially regarding governance and voting of the future development of a business network it is sometimes quite tricky to differentiate between a centralized and a decentralized network.

^{.&}lt;sup>28</sup> Pls refer to <u>https://medium.com/@wmougayar/Tokenomics-a-business-guide-to-Token-usage-utility-and-value-b19242053416</u> for a much more comprehensive lists of possible Utility Tokens

²⁹ They could, for example, start as Security Token deployed by an Issuer to raise funds to develop a project or platform. Once the platform is established and functional, the Token then could become a Utility Token for using services on the platform. FileCoin with its SAFT (Simple Agreement for a Future Token) may be a case in point for this scenario.

7. Accounting and Tax implications for Security Tokens

Security Tokens are Tokens which can be described as the digital representation of conventional securities as defined in Art. 4 (1) No. 44 Directive 2014/65/EU ("MiFID II").

If the Token conveys the right to a share in the (future) profit or (future) turnover or grants a participation in the net wealth or allocates rights similar to a debt instrument like interest payments or repayment of the paid amount, the Token's functionality equals a security or a loan in an economic and legal sense and has to be accounted for accordingly.

7.1 Accounting for Security Tokens

The accounting for such cryptoassets follows the legal classification depending on the functionality and economic rights and obligations set by the specific Token agreements of the issued or acquired Token shares, participation certificates, loans, bonds, subordinated loans, etc.



(a) Accounting for Equity and Debt Tokens

Most of the European local accounting guidelines have specific rules how to account for equity stakes in legal entities as well as for loans and or other obligations that rules also apply for Security Tokens.

If Tokens grant rights like share ownership or if there is an obligation to repay, these cryptoassets will clearly qualify as financial instruments. For international accounting IAS 39/IFRS 9 Financial Instruments: Recognition and Measurement, as well as IFRS 32 *Financial Instruments: Presentations* apply. IAS 32 *Financial Instruments: Presentation* outlines the accounting requirements for the presentation of financial instruments, particularly as to the classification of such instruments into financial assets, financial liabilities and equity instruments. The standard also provides guidance on the classification of related interest, dividends and gains/losses, and when financial assets and financial liabilities can be offset.

A financial instrument as set out in IAS 32 defines a financial asset as being any asset that is:

- 1. Cash
- 2. An equity instrument of another entity

3. A contractual right (i) to receive cash or another financial asset from another entity, or (ii) to exchange financial assets or financial liability with another entity under conditions that are potentially favourable to the entity.

Furthermore, a financial instrument must result in an asset for one company and a financial liability for another.

(b) Accounting for hybrid financial instruments (incl. Revenue Tokens)

Sometimes issued financial instruments possess characteristics of both equity and debt. Some wellknown hybrid financing instruments are preference shares, convertible debentures, warrants, options etc.

Some European countries know profit participation rights which are rights that the Issuer of profit participation rights grants to the holder of the profit participation rights as consideration for the transfer of capital (capital injection or waiver of claims) or for settlement of other claims. As a rule, they provide for a temporary or unlimited participation in the overall result or a partial result and/or in changes in assets or in the liquidation proceeds of the Issuer of participation rights without giving the holder the right to hold a stake in the equity.

The legal systems in many countries grants Issuers extensive freedom in the design of participation rights.

The Austrian Chamber of CPAs has issued a guideline³⁰ for accounting for profit participation rights which can be taken as an excellent example how financial instruments must be accounted for based on their nature and economical substance.

Depending on the circumstances, the profit participation capital provided by the Issuer is either to:

- a) be transferred directly to equity,
- b) be recognised in profit or loss or
- c) be recognised as liability.

ad a) Profit participation capital is only to be reported as equity on the balance sheet if the following criteria are cumulatively met:

- Subordination to all other creditors;
- performance-relatedness of the remuneration and participation in the loss up to the full amount;
- unlimited provision of capital.

ad b) the received profit participation capital goes straight to the profit and loss statement as revenue only if:

- a) the holder of a profit participation right separately decides to contribute to income (can be a capital injection or in the form of a waiver of claims in order to enable the restructuring process);
- remuneration to the profit participation right holder is only granted up to the amount of the distributable net profit for the year and may therefore not result in a net loss for the year, and;

³⁰ Bilanzierung von Genussrechten und von Hybridkapital (beschlossen in der Sitzung des Fachsenats für Handelsrecht und Revision (nunmehr Fachsenat für Unternehmensrecht und Revision) am 23. Juli 1997 als Stellungnahme KFS/RL 13; überarbeitet im Dezember 2010)

c) the profit participation right holders are only entitled to a share in the liquidation proceeds at the liquidation of the company if all non-subordinated creditors are fully satisfied.

Ad c) profit participation capital that does not meet the quality of equity and whose recognition in profit or loss is not permitted must be classified as debt.

Again, the recommended disclosures as shown under 2.3.4 of the guidelines show how to qualify financial instruments based on their economical substance. A right of the holder to sell back the right to the Issuer or a subsidiary of the Issuer (Article 228 (3) öUGB) excludes qualification as equity. As with treasury shares, a buyback may only be carried out at the expense of free reserves or profit carried forward.

7.2 Taxes on Security Tokens

The issue of shares or the granting of corporate rights as well as the raising of a debt for a corporate or partnership against payment of a shareholder contribution are not regarded as services within the meaning of the VAT (Article 135 para 1f COUNCIL DIRECTIVE 2006/112/EC).

Therefore, if Tokens are used to raise capital the transaction is not a taxable transaction as any share issue is not a VAT or corporate tax taxable transaction. On the part of the issuing body, it makes no difference whether there is an obligation to repay the capital raised or not. Although an Issue of equity or debt capital is not subject to VAT, input tax is deductible from the related input services if these costs are included in the costs of the general (taxable and taxable) economic activity of the person concerned.

Tokens characterized as equity/debt generally do not give rise to current income tax to either the Issuer or the investor at the time of the Token issuance but can result in dividends or deemed interest payments over the life of the investment.

Such payments must be taxed appropriately, in line with the common regulation for income from capital. The tax implications from Token Issuer and holder perspective are dependent on whether the Token classifies as equity or debt capital according to country-specific tax law. If the Token is treated as debt, profit distributions shall be deducted from the taxable basis of the Token Issuer as interest. Otherwise dividends paid to Equity Token Holders shall not be deducted. The tax implications for Token Holders are dependent on the taxation regime of the investor (business or private) and should follow the rulings for equity or debt instruments. In order to avoid hybrid mismatches, it is important to harmonize the classification regime on both the Token Holder side and the Issuer side in order to ensure that a Token accounted as equity in the Issuer's balance sheet is also treated as such for tax purposes of the Holder and vice versa.

If the equity interest sold via the Token Sale represents a stake in a partnership, however, the rules can get very complicated, and the future taxable income of the partnership will flow through to the Token Holders, so they may have an ongoing tax liability.

Taxation of Security Tokens follows the rules for the already known debt and equity instruments. Future administrative challenges for the Issuer may arise with the higher liquidity of the Tokens (Holders will change more easily and more frequently), with the increased globalization – as the holders of the equity and debt instruments will become more international compared to the situation right now and with the higher divisibility of the rights granted.

Example 1: Revenue Token with profit-sharing arrangements

The Token Issuer is a start-up in the legal form of a corporation and wants to finance the development of a machine with a Token Sale. The Issuer hopes to generate profits from the sale of the machines. In the context of the Token Sale, the Issuer generates 20 million Participation Rights Tokens with a value of 1 EURO per Participation Rights Token by means of a smart contract that is implemented on the Ethereum Blockchain. The Token Investors pay the issuance amount in Ether. At the time of payment, the Ether amount is converted and exchanged into Euro through a broker.

According to the terms of the Token Sale the Token Issuer commits himself to pay in Ether each year 30% of a positive EBIT (earnings before interest and taxes) to the Token Holders through the smart contract in proportion of the percentage share to the total number of Participation Rights Tokens. The Issuer does not commit himself to the Token Holder to repay the received amount.

Legal analysis and qualification for accounting and tax purposes from the Token issuer's perspective:

The legal relationship between the Issuer and the Token Holder is a contractual relationship that does not provide a repayment right to the Token Holder. The payments of the Token Issuer to the Token Holder depend on the annual profit of the Issuer. The legal relationship between the Issuer and the Token Holder does not qualify as a loan and not as equity. It qualifies as a hybrid financial instrument. It is principally a Revenue Token, which would have to be accounted for in the equity section of the balance sheet as a separate position.

Legal analysis and qualification for accounting and tax purposes from the business investor's perspective:

At the level of the business investor, there is an exchange of assets at the time of the purchase of the Participation Rights Tokens. The presentation, recognition and the measurement of the cryptoassets acquired again depend on the economic content of the rights connected with the cryptoassets acquired.

According to IFRS 9 if future cash flows relate to the Tokens, the Tokens qualify as financial instruments and the appropriate recognition and measurement must be applied.

8. Accounting and Tax implications for Consumer Tokens in centralized networks

Consumer Tokens in a centralized business ecosystem always represent claims on the side of the owner of a Consumer Token and obligations on the side of the Token Issuer, as there is evidently a will to bind the law to establish mutual rights and obligations.

The accountings concepts for accruals, deferrals, liabilities and when to recognise revenues are decisive for the recognition of Consumer Tokens.

Accruals and deferrals can be active or passive. Active ones can be treated as claims in a broader sense as they are distinct from both monetary assets as well as property, while the passive ones may be regarded as debts in a broader sense, as they are in any case distinct from capital as an obligation to the owners. They include deferred revenue and costs or expenditures, accrued costs or expenditures and accrued incomes as a specific sort of claim or debt.

Accruals are claims and other assets and liabilities that are expected to occur in the specified timeframe in which their occurrence is probable while their size can be reliably estimated. These claims and obligations relate to known or yet unknown legal or natural persons, while the assets are meant to represent corresponding products or services. Active accruals include deferred costs as well as deferred expenditures and accrued revenues are to be recognized separately and are divided into several main types.

Passive accruals include accrued costs as well as accrued expenditures and deferred revenues, which should also be recognized separately and are divided into several main types.

Deferred costs and expenditures don't initially burden the firm's operations or count towards its operating results of that accounting year, nor are they immediately factored into the purchase value of tangible fixed assets or reserves, but are instead meant to be recognized as costs in one of the latter years, when they'll be factored into the appropriate cost heading, factored in as expenditures and thus influence the operating results, or then be counted into the purchase value of tangible fixed assets or reserves. Deferred costs or expenditures also incur when procuring certain services and similar. Deferred revenues occur in those cases when services are billed or even paid for but not yet rendered, however this does not result in the usual obligations towards customers as would be the case with prepayments.

Liabilities³¹ are recognised as obligations in relation to financing of subject's own assets which must be returned or settled, especially in money.

In accounting registries and balance sheets, liabilities are recognised as an obligation if: a) there is a possibility that its settlement will result in fewer factors enabling economic benefits; b) the settling amount can be reliably measured. A liability is something that needs to be done according to certain norms or regulations. An obligation is a legal relation on the basis of which one of the parties has a right to demand fulfilment of a certain duty or service from the other party; as such it is subject to the accounting treatment and included in a balance sheet, however it is not to be considered as a debt. Debt is what one must return or settle, especially in money.

Revenues are recognised if an increase of economic benefits in an accounting period is connected to the increase of assets or decrease of debt and the increase can be reliably measured.

³¹https://www.wikiaccounting.com/recognition-criteria-liabilities-balance-sheet/

An organisation recognises income from sales when a contract obligation is being fulfilled. Liability (commitment) under the contract is an organisation's obligation to execute, therefore, to deliver goods or services agreed upon (promised) by the contract. An organisation fulfils an obligation to execute the transfer of goods or services promised by the contract. With each obligation that is fulfilled the income is also gradually recognised in accordance with the organisation's progress in the completeness of fulfilment of such an obligation. Revenues are recognised gradually only if it is possible to reasonably measure progress in completeness of fulfilment of obligation to execute, that is, when an organisation has reliable information needed for use of the appropriate method for measuring progress. In case an organisation cannot reasonably measure progress towards the fulfilment of their obligations but expects to be refunded the costs created by such a fulfilment the organisation can record its income only to the amount of the costs incurred.

8.1 Accounting for Consumer Tokens

Depending on the rights granted by the Tokens different accounting principles are applicable:

(a) Recognition and presentation in accordance with local accounting rules for the Token Issuer

For Commercial Code purposes revenue has to be recorded at the spot rate on the date of the Token Sale, this income is offset by building up an appropriate balance sheet position at the same amount if the service promised has not yet been delivered (Voucher Tokens) or the costs which are intended to be covered by the raised funds have not been incurred as stated in the white paper (Work Tokens). Considering the similarity to vouchers it must be recognized that there is a difference between free discount vouchers that allow the holder to get a certain percentage off its next purchase and value vouchers that can be directly redeemed for goods and services. Since Tokens get sold during a Token Sale and are meant to give Token Holders access to a service provided by a certain entity or feature within a decentralized network, they should generally qualify as value vouchers. Therefore, the rulings of the German Federal Fiscal Court referring to discount vouchers, for which it is not allowed to build a liability or an accrual, should not be applicable.³²

Legally, Voucher Tokens qualify as bearer papers, they grant the right to the Holder to get a good delivered or a service rendered (above all access rights).

Fiat currency and cryptocurrency raised in the Initial Coin Offering are initially recognized at their paidin value on the closing day (regarding recognition of cryptocurrency compare 9.3) in the income statement.

In properly reflecting that the obligations connected with the Consumer Tokens issued have not been fulfilled at the closing date, the appropriate balance sheet positions must be built up:

- short-term or long-term accruals for Voucher Tokens;
- deferred revenue for Work Tokens. To be valued at the spot rate of the date of the Initial Coin Offering.

Token Holders account for Voucher Tokens as a claim valued at the spot rate on the acquisition date. On the subsequent dates the recorded claim amount is accounted for in accordance with the rules for accounting of accounts receivable.

³² German Federal Fiscal Court, Decision dated 19.09.2012, IV R 45/09, BStBl 2013 II S. 123, recital 36.

(b) Measurement at the following balance sheet dates

At each subsequent balance sheet date, the Issuer must verify the reality, justification and valuation of any accruals and deferred revenue positions shown in the reporting.

If, for measurement purposes, the exchange rate for the value underlying the cryptoasset has increased at the balance sheet date, the accrual is to be increased accordingly with the loss going to the income and profit statement. A flat-rate valuation procedure can be applied here despite the application of the principle of individual valuation, as the individual determination of the value and risks of an individual valuation object seems impossible, difficult or unreasonable. If the value of the underlying cryptoassets has fallen, the liability can be <u>down-valueddown valued</u> up to the original liability in line with the principle of prudence.

For redemption purposes a best estimate for the probability of redemption (Voucher Tokens) must be made and the liability accrual must be adjusted accordingly.

Accruals are converted into liabilities upon meeting the conditions for their recognition. They are settled and cease with their fulfilment.

(c) Redemption of the Tokens

In case the Tokens are redeemed against the goods or the services delivered, the accrual is decreased by the amount the cryptoassets valued at the spot rate on the date of redemption.

The accrual is resolved accordingly, and income is recognized.

(d) At the time of the sale in case the Token Seller is a business organization establishing its accounts according to IFRS

The International Accounting Standards Board (IASB) and US Financial Accounting Standards Board (FASB; together "the Boards") have jointly adopted the new standard for revenue recognition. IFRS 15 Revenue from Contracts with Customers is applicable for all relevant transactions after January 1, 2017. IFRS 15 regulates the recognition of revenue from all contracts with customers and is also applicable for voucher accounting. In line with IFRS 15 the Voucher Tokens - measured at the exchange rate on the balance sheet date - are to be recognized as liability which must be adjusted for probability of redemption as well as for valuation purposes on an ongoing basis.

8.2 Income tax effects for the sale of Consumer Tokens

For tax purposes and financial accounting purposes, income resulting from such Token Sales must be recognized when the services are rendered (Voucher Tokens) or obligations fulfilled (Work Tokens).

In the case of a pre-sale of such Consumer Tokens, the income recognition is deferred until either the services are rendered e.g. the right to participate in a network is exercised (registration process on the to-be-established economic ecosystem is completed) or the obligation to establish the network or goods is fulfilled.

8.3 VAT tax implications for Voucher Tokens

The qualification of the VAT effects on Consumer Token Sales is quite challenging and could, as a matter of fact, vary in different European countries as although the Voucher Directive is applicable in all EU-member states beginning on January 1, 2019, the tax qualification of Voucher Tokens will raise new issues.

As most Token Issuers use the proceeds of a Token Sale to fund the development of their applications, usually only future benefits are promised, and no services are provided by the issuing companies at

the time of the closing of the Token Sale. From a VAT perspective, the question arises in such cases as to whether the service to be rendered is sufficiently substantiated that the payment is to be qualified as a down payment and is subject to VAT at the time of its performance (Art 65 COUNCIL DIRECTIVE 2006/112/EC) or whether the service is still so little determined that the issuance of the Token is to be qualified as a right to receive a future service and therefore is not subject to VAT.

The VAT taxable turnover is then only realized when the issued Token is exchanged for the specific service. The case law of the European Court of Justice treats other phenomena - i.e. vouchers, which are based on the nominal value or the purchase of so-called coupons for later redemption as services, in the same way as a means of payment, as a non-taxable transaction. If a voucher is nothing more than a document embodying the obligation to accept this voucher instead of fiat currency this voucher has a function comparable to a general means of exchange. The service is then only deemed to have been exercised at the time the voucher is redeemed. The monetary value, which is finally taxable, is the monetary value that the providing entrepreneur receives when accepting the voucher for redemption (!). All services rendered before the actual delivery is done are to be treated as non-taxable.

In the case of Madbid, the Advocate General Tanchev³³ saw the sale of a bidding fee (credit) as a taxable transaction In the Advocate General's view, the purchase of these bidding fees is necessary for the holder to participate in the auctions. The credits can then be used on the platform and will be credited to the user at the time of purchase. In this case, a specific right, namely the right to participate in auctions, is acquired for the Advocate General with the acquisition of the goods, so that a taxable service is already provided at the time of the acquisition of the credit. In our opinion in any Token Sale for Tokens which are required to participate on a to-be established centralized network the Token Holder acquires a voucher for the right to participate in the network.

Whenever a commitment is made that entitles the recipient to claim specific or to be specified benefits at a specific or determinable later date, the ECJ has used its "voucher approach". In order to reduce uncertainties in connection with the VAT assessment of vouchers, the Council adopted the Voucher Directive in 2016.

(a) Council Directive (EU) 2016/ (1965) as of 27 June 2016 with respect to the treatment of vouchers

With the terms and conditions for the obligation (specifying the goods or services to be supplied or the identities of the potential suppliers) being indicated either in the smart contract or in related documentation, Consumer Tokens definitely qualify as vouchers for VAT-purposes as determined in the Council Directive (EU) 2016/1065 as of 27 June 2016 changing the VAT Directive 2006/112/EG with respect to the treatment of vouchers ("Voucher Directive").

The Voucher Directive will be applicable in all EU-member states beginning January 1, 2019. It addresses the inconsistencies in the European VAT-tax treatment of vouchers and intends to find a common solution to avoid mismatches for vouchers supplied between member states by also allowing for the effects of the new rules for electronically supplied services which are applicable since 1 January 2015.

Both Directives, the Council Implementing Regulation (EU) No 282/2011 of 15 March 2011³⁴ defining implementing measures for Directive 2006/112/EC on the common system of value added tax

³³http://curia.europa.eu/juris/document/document.jsf?text=&docid=200021&pageIndex=0&doclang=EN&mo de=lst&dir=&occ=first&part=1&cid=12780

³⁴ https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011R0282&from=EN

regarding electronically supplied services and applicable for all EU-countries as of January 1, 2015 (Electronically Supplied Services Directive) as well as the Voucher Directive, have massive VAT implications for Consumer Token Sales and our following statements on the proper tax treatment for Consumer Tokens are based on the application of both directives.

Please be aware that although the Voucher Directive should only be applicable for vouchers issued after December 30, 2018 and should be without prejudice to the validity of the legislation and interpretation adopted by the Member states, we guess in case of any doubts the local tax authorities would follow the principles laid down in this directive also for vouchers issued before December 30, 2018.

(b) Definition of electronically provided supplies

In accordance with Article 7(1) and (2) the Electronically Supplied Services Directive is applicable if the following services are delivered³⁵:

- services provided via the Internet or a similar electronic network, the provision of which, by their nature, is essentially automated and;
- only take place with minimal human participation;
- and would not be possible without information technology.

Both the granting of a mere access right/right of participation to an electronic platform as well as the right to exchange services or a digital product for a Token can qualify as electronically supplied services in line with the Regulation (EU) No 282/2011 if the above criteria are met.

Article 3a UStEA Article 3a UStG (Article 1 UStDV) gives the following examples for electronically supplied services:

(3) Other services provided electronically are in particular:

1. provision of websites, web hosting, remote maintenance of programs and equipment, online provision of storage space as required, provision of software and its updating. This includes, for example, granting access to or downloading software (such as procurement or accounting programs, anti-virus software) and updates, banner blockers (software to suppress the display of web banners), downloading drivers (such as software for interfaces between PCs and peripheral devices such as printers), automated online installation of filters on websites and automated online installation of firewalls;

2. provision of images, such as providing access to or downloading desktop designs or photos, images and screensavers;

3. provision of texts and information. This includes, for example, e-books and other electronic publications, subscriptions to online newspapers and magazines, web logs and website statistics, online news, online traffic information and online weather reports, online information automatically generated from specific legal and financial data entered by the service recipient (e.g. regularly updated stock market data), advertising in electronic networks and the provision of advertising space (e.g. banner advertising on websites and web pages);

4. the provision of databases, such as the use of search engines and Internet directories;

³⁵ Also compare Abschnitt 3a, USTAE

5. providing music (e.g. providing access to or downloading music to a PC, mobile phones, etc. and providing access to or downloading jingles, clips, ringtones and other sounds);

6. providing films and games, including games of chance and lotteries. These include, for example, the granting of access to or downloading of films and the granting of access to automated online games which only run over the Internet or similar electronic networks and in which the players are physically separated from each other;

7. providing programs and events in the fields of politics, culture, art, sport, science and entertainment.

Since 1 January 2015, electronically supplied services are always taxable at the place of residence of the customer (place of destination), irrespective of whether the services are provided to taxable people (B2B) or non-taxable people (B2C). In the case of electronically supplied services to private individuals, the entrepreneur remains the tax debtor, if the recipient is an entrepreneur, the tax debt is transferred.

(c) Single-Purpose versus Multi-Purpose Voucher

For VAT purposes the sale of a Consumer Token in return for a consideration principally identifies as a taxable transaction subject to VAT in the meaning of Article 2(1)(c) of Directive 2006/112/EG if the Token qualifies as a *single-purpose voucher* in line with the directive 2016/1065 Article 30b (2) at the time of the Token Sale.

A "single-purpose" voucher means a voucher, where the place of the supply of the goods and services to which the voucher relates as well as the VAT due on these services, are known at the time of issue of the voucher (at the time of the Token Sale).

Only if these conditions are met the sale of a Voucher Token should represent a VAT taxable transaction notwithstanding that the services have not yet been rendered due to a not-yet-established network.

Each subsequent transfer of the single-purpose voucher made by taxable persons is regarded as a supply of the goods or services to which the voucher relates. So, any resale of a Token qualified as a single-purpose voucher for VAT purposes afterwards again qualifies as a VAT taxable transaction.

The following actual handing over of the digital goods or the actual provision of the services in return for a single-purpose voucher accepted as consideration or part consideration by the supplier will not be regarded as an independent taxable transaction.

If the following conditions are not met at the time of the Token Sale: the place of the supply of the goods and services to which the voucher relates or the VAT on the services is not known the Token qualifies as "multi-purpose voucher" according to Article 30a (3) of the Voucher Directive.

With most (99%) of the pre-sold Tokens promising electronically supplied services (compare above), the place of supply is to be the place of the residence of the Token Holder who finally claims the service or the supply of the digital goods. Therefore, most of the Voucher Tokens – mostly sold before the setup of the network and mostly tradable - should not qualify as single-purpose voucher as the place of the taxable transaction cannot be determined at the time of the Token Sale.

The sale of a multi-purpose voucher does not qualify as a taxable transaction at the time of the Issuance of the Tokens. The relevant Tokens should be transferred without any VAT tax implications and qualify as non-taxable means of exchange in the business ecosystem.

Only the actual handing over of the goods or the actual provision of the services in return for a multipurpose voucher should be subject to VAT. Article 73a of the Voucher Directive 2016/1065 determines the taxable amount of the supply of goods or services provided in respect to a multi-purpose voucher. Based on this article, the taxable amount shall be equal to the consideration paid for the voucher or, in the absence of information on that consideration, the monetary value indicated on the multipurpose voucher itself or in the related documentation, less the amount of VAT relating to the goods or services applied. This means the consideration which was spent by the purchaser on the voucher at the last purchase of the voucher before the voucher was redeemed should correspond to the taxable basis for VAT purposes. This procedure ensures that value-added tax is incurred in proportion to the price for the receipt of the goods or service.

Due to the high tradability of the Tokens, the actual service recipient's price will be different from the price paid by the Token Purchaser at the time of Token Sales. The consideration paid by the Token Holder who receives the service for the Token can be much higher than the price at which the Token was sold at the time of the Token Sale. This constellation is to be assumed if the network or the delivery and service to be claimed does not exist at the time of Token Sales. This could lead to a situation where the Token Issuer could end up with a considerable higher VAT burden compared to the burden based on the results at the initial Token Sale. p

The pre-sale of an Access Token will also involve virtually all Token models as multi-purpose since in most cases electronically supplied services will be the underlying business model on the platform.

If the platform already exists at the time of the acquisition of the right of participation (at the time of Token Sales), different models are conceivable: if a separate registration for the use of the platform is required, the controllability of the turnover from the Token Sale is postponed until the individual user has registered. If no separate registration is required for the use of the platform, the data of the Token purchasers must be collected at the point of the Token Sale and it will be assumed that the turnover can be controlled at the time of the Token Sale. Any resale of such a Token is taxable.

(d) Administrative burden in connection with multi-purpose vouchers

Please allow for the fact that electronically supplied services require special administrative efforts to comply with regulations. Companies providing such services must determine where their customers are located for each individual service. In order to reduce the effort involved in determining the recipients' location, there are EU-wide standardised simplification rules ("Assumptions for recipient location"). Where physical presence of the consumer (a non-taxable person) is not required for receiving that service and you cannot be certain of the country where the consumer is registered, has its permanent address or usually lives, you are allowed to make a presumption based on the information available to you about your customer, i.e. regarding the place of residence, the tax authorities require two non-conflicting pieces of evidence to enable the seller to determine the place of registration or permanent residence. Evidence includes the billing address, IP address, bank details, but also all other economically relevant information.

The local tax office can refuse these assumptions if there are indications of incorrect application or misuse of the assumptions by the service provider. The EU Turnover Tax One-Stop-Shop (MOSS) offers the possibility of registering in one EU Member State (Member State of identification = MSI) and declaring all transactions covered by the special scheme via the MSI and paying the resulting VAT in this country. If an entrepreneur does not register for MOSS, he has the obligation to register other electronically provided services, telecommunications, radio or television services to non-entrepreneurs in the EU for VAT purposes in each Member State in which he provides such services

and subsequently to file tax returns and make payments there. MOSS is optional and must be applied for. If the option is exercised, it applies to all sales covered by the special arrangement.

There are specific requirements for electronically supplied services to non-taxable people in non-EU countries.

8.4 EXAMPLES for Consumer Token Sales

Example 2: TOMBACOIN (an example of a Voucher Token):

The Token TombaCoin entitles the owner to future participation in various online betting games in the e-gaming area, which will be offered on the Token seller's own centralized platform, which is yet to be set up. The TombaCoin is tradeable.

In addition, the Token Holders have the right to request betting services in exchange for the TombaCoin. Also, the Token will be the exclusive means of payment for the wager, for the payment of service charges on the platform, as well as for the use of any betting services on its platform delivered by third-party e-gaming suppliers. The Token Seller promised to arrange for the tradability of the Tokens sold.

(a) Legal analysis and qualification for tax purposes of the TOMBACOIN

Legally the Token Issuer has a non-refundable obligation to render the services in exchange for redemption of the TombaCoin.

For accounting purposes, the Token Issuer accounts for the result of the Token sale at the spot rate, recognizing income at the spot rate and building up an accrual at the spot rate on of the date of the Token sale. The accrual must also allow for the Tokens issued free-of-charge at the spot rate as these Tokens also enable the Token Holders to receive services.

On each reporting date the accrual must be revalued (at the market rate) and to be checked for justification. IFRS 15 accounting equals local accounting guidelines in this respect.

The accruals are shown at fair value with the change going to the loss and profit statement.

For VAT tax purposes the obligation to accept the Token as a consideration for a future service to be provided electronically (e-gaming qualifies as electronically supplied services) results in the qualification of the Token as a multi-purpose voucher for VAT purposes, since at the time of Token Sales it is not yet foreseeable where the place of provision of the service (place of supply equals the place of residence of the Token-holder actually redeeming the Token) will be.

Only when the actual provision of the services by the Token Issuer in return for the TombaCoin takes place, the transaction should be subject to VAT. The taxable amount shall equal the consideration paid for TombaCoin (minus the VAT owed for the delivery or service to the Token Holder redeeming the Token) by the Token Holder who asks for the service in exchange for the Token.

For income tax purposes of TombaCoin, the accrual is released to income to the extent the Token is used/redeemed.

Example 3: RINOQ (Consumer Token):

The RINNOQ Token entitles the owner to participate in various surveys in the future on a to-be-built centralized web application. The Token should be the only means of exchange within the created ecosphere. Each participation (based on smart contracts) is rewarded with Tokens, each participation requires the previous "staking" of a certain number of Tokens. There is no burning or

buy back agreement for the Tokens issued. The Consumer Tokens will be tradeable on a crypto exchange.

(b) Legal analysis and qualification for accounting and tax purposes of the RINOQ Token:

The granting of that right to access the platform in return for the consideration during the Token Sale would thus be a transaction subject to VAT within the meaning of Article 2(1)(c) of Directive 2006/112.³⁶

With the RINNOQ qualifying as an electronically supplied service it may qualify as a multi-purpose voucher in line with Article 30a (3) of the Voucher Directive. However, it will only qualify if the underlying business model qualifies as electronically supplied services and the place of residency of the Token Holder who will use the Token to participate in the network is not known at the time of the closing of the Token Issuance.

The actual provision of the service occurs when a Token Holder registers or stakes his Tokens for the first time and thus becomes subject to VAT.

Afterwards the RINNOQ just qualifies as a means of exchange and any further service provided on the platform will trigger VAT in line with Article 2(1)(c) of Directive 2006/112 in the case that taxable people are involved.

Based on the Voucher Directive the taxable basis is likely to correspond to the consideration paid for the voucher by the Token-holder not necessarily at the price paid at the time of the Token Sale.

³⁶ Compare again the statement of the OPINION OF ADVOCATE GENERAL TANCHEV delivered on 7 March 2018(<u>1</u>) Case C-544/16, Marcandi Limited, trading as 'Madbid' v Commissioners for Her Majesty's Revenue andCustomshttp://curia.europa.eu/juris/document/document.jsf?text=&docid=200021&pageIndex=0&doclan g=en&mode=lst&dir=&occ=first&part=1&cid=86534

Accounting and taxes for cryptocurrency classified as coins (decentralized networks) and for Payment Tokens

Tokens which do not grant any additional rights and are used as a mere means of payment within a business ecosystem for transactions between users or also between the network operator and its users are often termed cryptocurrency/coins in decentralized networks and Payment Tokens in centralized networks. Popular cryptocurrencies are Bitcoin, Litecoin or Monero.

Within a definable community of network participants, the "cash only" coins fulfil the following functions:

- to transfer money (you can give and receive value using them);
- to act as a store of value (they can be saved and later swapped for something useful);
- to act as a unit of account (you can price goods or services in them).

For legal purposes cryptocurrencies/coins are qualified as immaterial, movable, consumable and justifiable objects. According to this approach they may be the subject of legal agreements - such as purchase, exchange, gift or loan agreements. But coins are not legal tenders and they do not qualify as e-money in line with Article 1 para. 1 e-money Act.

9.1 How to account for cryptocurrencies?

It is generally (under all accounting regimes) agreed that such coins evidently fulfil all requirements to be eligible for recognition in the balance sheet, since:

- a future benefit for the company can be assumed,
- its transferability is evident,
- and an independent valuation of an asset is given.

The value of such cryptoassets can be realized on relevant trading venues (exchanges like Binance). Regardless of their digital nature, they are under the control of the entitled person/organization and can be protected, acquired and transferred by contractual agreements within the framework of private autonomy, as well as by the fundamental right of ownership. The controllability in a property law sense is very pronounced due to the necessary knowledge of a private digital key in order to be able to transfer such coin units to third parties³⁷.

However, different views have been expressed in determining which International Financial Reporting Standard (IFRS) and which local accounting guidelines should be applied for the recognition and the measurement of cryptocurrencies.

The following different accounting approaches are discussed:

- Coins should be accounted for under cash and cash equivalents
- Coins should be accounted for as financial instrument
- Coins should be accounted for as intangible assets under intangibles goodwill and other.
- Coins should be accounted for as inventory/other assets.

(a) Should cryptocurrencies be accounted for as cash?

IAS 7 statement of cash flows does not provide a definition of cash, but merely states that cash comprises cash in hand and demand deposits. IAS 32 *Financial Instruments Presentation* however says

³⁷ (cf. Völkel 2017, p. 639 f.)

that currency (cash) is a financial asset because it represents a medium of exchange that can be exchanged for any good or service and it's therefore the basis on which all transactions are measured and recognised in financial statements. A deposit of cash with a bank or similar financial institution is a financial asset because it represents the contractual right of the depositor to obtain cash from the institution or to draw a cheque or similar instrument against the balance in favour of a creditor in payment of a financial liability.

IAS 7 defines "cash equivalents" as instruments that are almost as good as cash because they are cash like in nature. More detailed IAS 7 states that cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of change in value. As cryptocurrencies are highly volatile, it seems that they cannot be classified as cash equivalents.

According to German and Austrian Commercial Code regulation, cash for accounting purposes includes not only currency in hand but demand deposits with banks or other financial institutions. Cash also includes other kinds of accounts that have the general characteristics of demand deposits in that the customer may deposit additional funds at any time and effectively may withdraw funds at any time without prior notice or penalty. All charges and credits to those accounts are cash receipts or payments to both the entity owning the account and the bank holding it. For example, a bank's granting of a loan by crediting the proceeds to a customer's demand deposit account is a cash payment by the bank and a cash receipt of the customer when the entry is made.

Looking outside the accounting literature, cash is understood to be a thing that (a) stores value, (b) provides a common base for prices and (c) serves as a medium of exchange.

Arguments brought forward against recognition of cryptocurrency under cash and cash equivalents are:

- For cash to be a storage facility for value, it is very often required that it should not be subject to severe volatility.
- As a unit of account (i.e. a common base for prices), a cryptocurrency (yet) falls short. Goods and services are not quoted in, for example, bitcoin. Even though it is accepted as a means of payment by some, it is not a common unit for prices generally.
- Coins fall short as a widely accepted medium of exchange.

And the most discussed argument: Coins do not qualify as legal tender.

(b) Should Coins be accounted for as financial instruments?

Neither in the Austrian nor the German Commercial Code there is a definition for financial instruments, so there are still differences in material recognition and measurement for the same assets and liabilities between IFRS 9 and local Commercial Code.

According to IFRS 9 financial instruments are monetary contracts between parties. They can be created, traded, modified and settled. A financial asset in accordance with IFRS 9 is any asset that is: (a) cash; (b) an equity instrument of another entity; (c) a contractual right to receive cash or another financial asset from another entity; (d) a contractual right to exchange financial assets or financial liabilities with another entity under particular conditions; or (e) a particular contract that will or may be settled in the entity's own equity instruments.

As no contractual relationship based on a claim can be derived between a respective holder of a coin in a decentralized network and the other participants in the network cryptocurrencies may not qualify as financial instruments.

IAS 9 considers the question of whether gold bullion is a financial instrument in its guidance on implementing the Standard. It notes that although gold bullion is highly liquid, there is no contractual right to receive cash or another financial asset inherent in the gold bullion and it is therefore not a financial instrument. The same could be said of a holding in cryptocurrencies.

(c) Should coins be accounted for as intangible assets under intangibles – Goodwill and Other?

Under the Austrian and German Commercial Code intangible assets are defined as assets (not including financial assets) that lack physical substance.

Paragraph 8 of IAS 38 *Intangible Assets* defines an intangible asset as an identifiable non-monetary asset without physical substance.

Paragraph 12 of IAS 38 states that an asset is identifiable if it is separable or arises from contractual or other legal rights. An asset is separable if it is capable of being separated or divided from the entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, identifiable asset or liability.

Paragraph 16 of IAS 21 *The Effects of Changes in Foreign Exchange Rates* states that the essential feature of a non-monetary item is the absence of a right to receive (or an obligation to deliver) a fixed or determinable number of units of currency.

Coins fulfil all requirements of the definition for an intangible asset according to IAS 38 and the Austrian and German Commercial Code.

Applying the intangible assets approach would require entities to record coins at cost according to the local German and Austrian Commercial Code rules on the acquisition date and the subsequent reporting dates. Entities would subsequently measure intangible assets with finite lives by amortizing them over their useful lives. Since coins have indefinite lives, they would require an entity to test cryptocurrency for impairment at least annually with losses going to the profit and loss statement. Generally, no revaluation is possible under the local Commercial Code regulations.

Under *IAS 38 – Intangible Assets* are recorded either at cost or at revalued prices. Use of the revaluation method depends on there being an active market for the Coin in concern. Unlike under IAS 39 Financial Instruments: Recognition and Measurement, under IAS 38, revaluation of intangible assets is recognized as equity except to the extent that they reverse a revaluation decrease.

(d) Should Coins should be accounted for as inventory/other assets?

Even though cryptocurrencies meet the definition of intangible assets, IAS 38 excludes from its scope intangible assets held by an entity for sale in the ordinary course of business. Such intangible assets are to be accounted for as inventory under IAS 2 [IAS38:3(a)].

Under IAS 2 (inventory) coins would have to be valued on lower of cost or net realisable value. Writedowns taken to reduce inventories to the lower of cost or net realizable value are reversed for subsequent increases in value.

However, if an entity determines that its holding of digital currency should be accounted for under IAS 2, it will need to determine if it is considered a commodity broker-trader under IAS 2. Commodity broker-traders are required to measure their assets at fair value less cost to sell, with changes in fair value recognised in profit or loss. Under IAS2, commodity broker-traders are those who buy or sell commodities for others or on their own account. The inventories held by commodity broker-traders

are principally acquired for the purpose of selling soon and generating a profit from fluctuations in price or broker trader margin.

So, in order to determine how to account for an intangible asset it is necessary to establish how the asset is used in the business.

For example, it would seem fair to say that an entity which trades with Coins, would be considered to hold such digital currencies for sale in the ordinary course of business. However, what about other entities, for example entities that hold digital currencies for investment purposes (i.e. store of value)? Or, Entities that accept digital currency as means of payment for their goods or services? (like the Chinese mining company Bitmain).

Again, it seems fair to say that those entities that trade with digital currencies could be considered commodity broker-traders. However, that assumes that a digital currency is viewed as a commodity.

There is no specified definition of a commodity under IFRS. Under United States Generally Accepted Accounting Principles (US GAAP) a commodity has been defined as a product whose units are interchangeable, are traded on an active market where customers are not readily identifiable and are immediately marketable at quoted prices. This definition is useful as it does not make a distinction between tangible and intangible items. Consequently, if this definition is applied in the context of a digital currency, we believe it would be a commodity.

Secondly, there is no specific accounting guidance for commodities held for investment purposes. For example, if an entity holds gold bullion for investment purposes it seems that such assets would have to be accounted for under IAS 2 as inventory. It would not meet the definition of investment property under IAS 40 as it is not land or a building. Unless the entity that holds gold bullion for investment purposes is also considered a commodity broker-trader under IAS2, it would be subject to the measurement guidance in IAS 2 (i.e. lower of cost or net realisable value).

9.2 Tentative agenda decision³⁸ of the IFRS Interpretations Committee

The IFRS Interpretations Committee (Committee) issued in April 2019 a tentative agenda decision on how to apply IFRS Standards to holdings of cryptocurrencies.

The Committee noted that a range of cryptoassets exists. For the purposes of its discussion, the Committee considered a subset of cryptoassets—cryptocurrencies—with the following characteristics:

- a. A cryptocurrency is a digital or virtual currency that is recorded on a distributed ledger and uses cryptography for security.
- b. A cryptocurrency is not issued by a jurisdictional authority or other party
- c. A holding of a cryptocurrency does not give rise to a contract between the holder and another party.

The Committee observed that a holding of cryptocurrency meets the definition of an intangible asset in IAS 38 on the grounds that:

(a) it is capable of being separated from the holder and sold or transferred individually; and

³⁸ https://www.ifrs.org/projects/work-plan/holdings-of-cryptocurrencies/comment-letters-projects/tadholdings-of-cryptocurrencies/#consultation

(b) it does not give the holder the right to receive a fixed or determinable number of units of currency.

The Committee concluded that IAS 2 *Inventories* applies to cryptocurrencies when they are held for sale in the ordinary course of business. If IAS 2 is not applicable, an entity applies IAS 38 to holdings of cryptocurrencies.

Regarding Disclosure requirements the Committee stated that an entity applies the disclosure requirements in the IFRS Standard applicable to its holdings of cryptocurrencies. Accordingly, an entity applies the disclosure requirements in (a) paragraphs 36–39 of IAS 2 to cryptocurrencies held for sale in the ordinary course of business, and (b) paragraphs 118–128 of IAS 38 to holdings of cryptocurrencies to which it applies IAS 38.

If an entity measures holding of cryptocurrencies at fair value, paragraphs 91–99 of IFRS 13 *Fair Value Measurement* specify applicable disclosure requirements.

The Committee noted that, applying paragraph 122 of IAS 1 *Presentation of Financial Statements*, an entity would disclose judgements that its management has made regarding its accounting for holdings of cryptocurrencies if those are part of the judgements that had the most significant effect on the amounts recognised in the financial statements.

The Committee also noted that paragraph 21 of IAS 10 *Events after the Reporting Period* requires an entity to disclose any material non-adjusting events, including information about the nature of the event and an estimate of its financial effect (or a statement that such an estimate cannot be made). For example, an entity holding cryptocurrencies would consider whether changes in the fair value of those holdings after the reporting period are of such significance that non-disclosure could influence the economic decisions that users of financial statements make based on the financial statements.

9.3 Our recognition and measurement approach

In our opinion, cryptocurrencies would meet the definition of an intangible asset. However, we believe that the application of existing IFRS Standards may provide inappropriate outcomes from the viewpoint of relevant financial reporting and, we think that IFRS Standards may be amended to reflect *the economic substance of cryptocurrencies*.

We think that it is important to understand that digital assets may not fit neatly into simply one characterization. We do not believe that universally applying intangible asset accounting under IAS 38 to virtually all cryptocurrency holdings is appropriate.

Specifically, we strongly believe that the measurement guidance in IAS 38 does not provide relevant information in the context of cryptocurrencies to users of financial statements.

We think that for assets that produce cash flows directly, such as assets that are capable of being sold independently (like cryptocurrencies but unlike intangible assets), the most relevant measurement basis is likely to be one that reflects the present value of the future cash flows.

For assets or liabilities that are subject to variability in their cash flow, or whose values are sensitive to market factors or other risks, the current value such as fair value or value in use is likely to be more relevant than a cost-based measure.

A holding of cryptocurrency produces its cashflows directly (i.e. capable of being sold independently) and it is sensitive to market factors. Consequently, a market value would be the most appropriate (i.e. either fair value or value in use) measurement basis for cryptocurrencies.

The enhancing qualitative characteristics of comparability, verifiability and understandability also have implications for the selection of a measurement basis. A value in use is based on entity-specific assumptions. A fair value measurement, on the other hand, is based on market participant assumptions. In our opinion, a fair value measurement for cryptocurrencies would provide more appropriate information for financial reporting readers. Cryptocurrencies are traded on exchanges and observable market information is available.

In addition, recognising changes in fair value through profit or loss would result in accountability of the holding decision like investment properties and financial instruments that are generally fair valued through profit and loss.

In this way, investors reviewing the financial statements of companies holding digital assets will better understand the true nature of that asset and make better decisions as a result. Although Coins do not appear to meet the definitions of cash or financial instruments according to neither the local Commercial Code guidelines nor IAS7 and IAS 32, entities may use coins similarly to cash or financial instruments, either as a method of exchange for goods or services or for investment purposes.

Furthermore, some entities hold cryptocurrency with short-term intent and motivation to sell soon, contrasted with entities that hold cryptocurrencies with an intent to hold for a longer term. IAS 39 will provide for different accounting options for investments that have varied intentions on duration. So, in judging the appropriate accounting treatments allowances should be made for the length of intent to hold. Just as it would be inappropriate to account for an investment with immediate intent to liquidate in the same way as an investment to hold for a long or indefinite period of time, it similarly would be inappropriate to apply IAS 38 accounting equally to all cryptoassets with immediate intent to dispose as well as with long term intentions to hold.

We strongly believe that it is more appropriate to allow for different methods of accounting depending on the specific intent and use of the cryptocurrency within the reporting entity.

If the reporting entity uses cryptocurrencies as financial asset (means of payment), it should record Coins accordingly. Cryptocurrencies fulfil the concept of money if the specific provision to be applied uses the factual characteristic of money in the economic-functional sense and if recognition as money within a definable community is enough.

We suggest applying inventory accounting under IAS 2 when the intent of the reporting entity is to resell cryptocurrencies and IAS 32 and IAS 39 for the recognition and measurement of cryptocurrency holdings (with the understanding that the scope for both IAS may need to be expanded to address cryptocurrency).

IAS 39 *Financial Instruments: Recognition and Measurement* or, in future, IFRS 9 *Financial Instruments*, which replaces it, can be used in an analogous manner in order to properly comply with the principle of equal treatment between cryptocurrencies and foreign currencies - both of which functionally qualify as money in economic terms The initial measurement needs to be based on the fair value (IAS 39.9, IFRS 13.9)Subsequent measurement on the balance sheet date is also based on the fair value (analogous to IAS 39.46) with changes in fair value recognised in profit or loss.

For reasons of conceptual balance sheet clarity on the one hand, and to achieve appropriate results for a new type of monetary asset such as Coins on the other, the information function of the financial statements should best correspond to forming an additional balance sheet item (IAS 1.55) and explaining it in the notes (IAS 1. 117).

Classifying cryptocurrencies as intangible assets and measuring them at cost, despite cryptocurrencies being exclusively used as means of payment in a business, would result in a non-comparable, non-verifiable and senseless cash flow from investing statement.

9.4 Examples showing that the IAS 38 measurement approach is at least questionable

Quite popular crypto companies like Bitmain (Hong Kong) and Bitcoin Group Ltd. (Australia) have already published financial statements for their businesses. However, be aware that both companies accept fiat money or if desired cryptocurrencies for their deliveries or supplies.

The **Bitcoin Group Ltd**. applies the revaluation model under IAS 38 in accounting for its cryptocurrency holdings:

Bitcoins are indefinite life intangible assets initially recognised at cost. Bitcoins are subsequently measured at fair value by reference to the quoted price in an active Bitcoin market. Increases in the carrying number of Bitcoins on revaluation are credited to a revaluation surplus in equity. Decreases that offset previous increases are recognised against their valuation's surplus in equity; all other decreases are recognised in profit and loss. On disposal of Bitcoins, the cumulative revaluation surplus associated with those Bitcoins is transferred directly to retained earnings.

Bitmain applies the cost model under IAS 38 in accounting for its cryptocurrency holdings showing intangible assets at cost with regular impairments as required.

The different approaches of measuring results in non-comparable financial statements. In addition, neither the Bitmain nor the Bitcoin Group Limited's group cash flow statements give a true and fair view about the actual cash flow from investing activities.

9.5 Accounting for Payment Tokens in centralized networks

Payment Tokens represent a right for the Token Holder to use the Payment Token within a defined ecosystem and represents a liability for the Token Issuer to accept the Payment Token as legitimate means of exchange in its ecosystem.

Therefore, based on the substance over form principle they do not qualify as intangible assets under the definition of IAS 38 but fit the definition of financial instruments in line with IAS 32/IAS9/IAS32.

If a liquid market is established for the Payment Tokens, we refer to the above discussion (9.4) and ask for measurement of the Payment Token holdings at fair value with changes in fair value going through the profit or loss statement.

10. Disclosure requirements for cryptoassets

Now due to the unsolved accounting issues for cryptoassets, entities issuing and holding cryptoassets may need to consider extensive additional disclosures in order to provide useful information to the users of the financial statements.³⁹

Entities should consider disclosing factors such as:

- The types of the cryptoassets shown in the financial statements.
- The acquisition process of the crypto assets such as mined, issued or bought.
- The accounting policy for them and how this was determined.
- Number of Tokens sold or shown on the books.
- The most important features of any Tokens like rights granted and rights acquired.
- A table showing the accounting treatment of Tokens and any changes until the balance sheet cut-off.
- How fair value has been determined with appropriate reference to the disclosure requirements of IFRS 13 "Fair value measurement" those relating to the fair value hierarchy.
- Entities adopting a cost approach under IAS 38 should consider disclosing the fair value of the assets held as additional information. Disclosure of changes in the fair value of the assets after the reporting date (non-adjusting events) and historical information on the volatility of the cryptocurrency should also be considered irrespective of whether the assets are accounted for at cost or at revaluation.
- etc...

³⁹ IAS 1: Presentation of Financial Statements

11. Tax effects for cryptocurrency transactions

For income tax purposes, cryptocurrencies are treated as property in most jurisdictions⁴⁰, thus subjecting it to capital gain/loss and investment income tax treatment and associated reporting requirements.

11.1 Income tax reporting

If trading in cryptocurrencies does not exceed the commercial threshold, gains from transactions of cryptocurrencies sold within a one-year period result in an income taxable event in Germany and Austria. According to the German and Austrian tax rules taxable sales from private property require a purchase and sale event. Especially for cryptocurrencies there is a wide range of possibilities to gain ownership that do not qualify as a purchase in the meaning of income tax regulation.

Exceeding the commercial threshold and qualifying trading in cryptocurrencies as business requires engaging employees, renting of premises and offering (financial) services to other market participants. However, according to settled case law principles the transaction volume and amount is not decisive for the trading activity to qualify as private asset management or business operations.⁴¹

FiFo procedure seems appropriate to determine the annual period gain/loss, so that cryptocurrencies acquired first are deemed to be resold first. Nevertheless, the differentiation between taxable asset swap transactions and non-taxable spending transactions can result in documentation difficulties since the non-taxable amounts of spent cryptoassets also have to be reported under the FiFo procedure.

The difference between the sales price on the one hand and acquisition and advertising costs on the other hand determines the gain/loss. If the sale takes place in exchange for another cryptocurrency, the value of the received asset is recognized as the sale price in accordance with the principles for barter transactions. The decisive date for the gain/loss recognition is the time of cash in- or outflow.

Capital gains from the sale of cryptocurrencies held as business assets and income from commercial activities related to cryptocurrencies (e.g. mining, brokerage) are subject to income tax and to corporation taxes.

Cryptocurrencies are treated as investment assets in case the taxpayer uses them to generate income in the form of interest.

Cryptocurrency earned and transaction fees paid for POW activities can result in taxable income.

For taxation purpose it is assumed that IT services are offered to all network participants, which is a market activity aimed at achieving a return service. The difference between minimum income from business enterprises and income from other services lies in the degree of sustainability and the degree of operational organisation used.

For accounting purposes, cryptocurrency earned as a result of mining activities must recognized all expenses incurred to get the cryptocurrency, insofar as these expenses can be allocated as direct costs of acquisition.

⁴⁰ In Austria there is a specific ruling issued by the ministry of finance dating from June 2017 that Bitcoin do not qualify as financial assets, not as legal tender and not as foreign currency.

⁴¹ German Federal Fiscal Court, Decision dated 02.09.2008, X R 14/07, BFH/NV 2008, S. 2012

Associated costs, e.g. costs for electricity and hardware, can be deducted from revenues. Only in exceptional cases, when acquisition costs cannot be determined, for tax reporting cryptocurrencies can be recorded at market prices.

If the mined cryptoassets are sold within a holding period of one year, it is questionable if the sale can result in income from private sales transactions. Considering that the mined cryptoassets are not bought in an acquisition process in the meaning of Article 23 German Income Tax Act and rather created in a production process the later sale of such assets should not result in an income taxable transaction since no acquisition took place before. Accordingly, profits and losses resulting from the holding of these cryptocurrencies in the time between inflow and outflow should be non-taxable in Germany and Austria.

11.2 VAT reporting for cryptocurrencies

Since the decision of the European Court of Justice in the Hedqvist case, it has thus been clear that the turnover achieved by entrepreneurs from selling bitcoin for fiat money and vice versa qualifies as a turnover of means of payment within the meaning of Art. 135 para. 1 letter e VAT Directive and is therefore not VAT-taxable.

From the Hedqvist judgement, the ECJ follows an economic-functional understanding of money for the assessment of cryptocurrencies under value added tax law. The transfer of the cryptocurrency, like any other non-taxable money transfer, is not an end use.

If a miner sells his bitcoins for legal currency or exchanges it for another cryptoasset, the ECJ ruling in the Hedqvist case shows that from the miner's point of view this process cannot be VAT-controlled. For the assessment from the point of view of the "purchaser" of bitcoin, this also applies to the exchange into legal currency. When exchanging into another cryptoasset, however, this can only apply if the other cryptoasset itself also qualify as a means of payment. This presupposes that it has the sole purpose of acting as a means of payment. If this is not the case, from the point of view of the person who receives bitcoins for the exchange of the cryptoasset, there may be another (possibly sales taxable) transaction that is not comparable with the exchange of legal currency into bitcoin. VAT tax is based on whether the cryptoasset in question only has a payment function (such as bitcoin). In that case the sale should not be a taxable turnover - thus no VAT is incurred. The costs directly and indirectly associated with the production and subsequent sale of bitcoins, therefore, do not entitle the holder to deduct input tax.

According to the German/Austrian MoF⁴² any form of cryptocurrency mining that takes place on a distributed network would not have to be revenue-controllable due to the lack of identifiable service recipients.

⁴² Ministry of Finance

12. Additional taxable events for cryptoassets (like airdrops, forks, giveaways)

Price discovery is an important concept affecting how taxation is applied to cryptoassets. Price discovery refers to the act of determining the proper price of a security, commodity, or good or service by studying market supply and demand and other factors associated with transactions.

Cryptoasset events including chain splits, airdrops and giveaways are subject to price discovery and, therefore, create a unique challenge in determining the measurement for cryptoassets that newly come into existence.

A chain split occurs when a Token is split into two separate digital assets. An airdrop is a distribution of new Tokens, on a pro-rata basis, to existing Holders of a cryptoasset based on a snapshot of the owners' balances at a specific point in time.

Existing cryptoassets with a long track record are traded on multiple exchanges and likely have significant trading volume, thus yielding enough data for any legal tender translations and the determination of fair value. This data is not available when new cryptoassets come into existence at time zero, which is the moment in time that the price discovery process begins. The legal tender translation for cryptoassets happens at the exact second a transaction takes place (as if there was a transaction time stamp post price discovery). When this method is applied to chain splits, airdrops, and giveaways (to be explained below), the price discovery at time zero – the exact second of the transaction - is EUR 0, in theory. The price discovery process begins when the cryptoasset is listed on an exchange and the trading process begins to produce price history. Price discovery may start on the same day as the cryptoasset event. However, in many cases, price discovery and exchange listings do not take place for several days because digital wallet software and exchanges must upgrade their technology and system rules to make it compatible with the new cryptoassets, particularly in the event of a chain split.

12.1 Bounty Tokens and airdrops

An airdrop is a process in which Token Holders receive additional Tokens free of charge, provided they meet certain requirements, we mainly have these events within a centralized network.

Such free of charge cryptoasset distributions are in some instances utilized as a pre-ICO marketing strategy for an upcoming project designed to build brand recognition, attract users, and provide benefits to the blockchain project and user network. Such an airdrop can either be announced or unannounced prior to the distribution.

Basically, airdrops can be divided into two forms:

- A project distributes free Tokens to existing Holders of a certain Token (also known as the base Token in the context of airdrops)
- Airdrops where the Token recipient must meet certain additional requirements or must render services in order to receive the additional Tokens, i.e. supporting the project in social networks through likes or shares (termed as bounties).

Up to now there is no guidance on the tax treatment of airdrops issued by the fiscal authorities. Thus, many questions remain unanswered, including the amount that must be recognized as income and the timing thereof, the allocation of basis, the fair market value at the time of receipt of such

airdropped Tokens, and the characterization of income, etc. However, as seen before for airdrops and bounties one must also differentiate between the private and business sphere. Since airdrops occur without any prior notice to the airdrop recipient it should be impossible for airdrop activities alone to qualify the recipient as a professional business investor. Even for bounties, for which minor tasks must be performed usually no business operation should be justified.

Airdrops received within the private sphere should not qualify as any taxable income stream, at least under German taxation rules, since no taxable income type can be applied. In the literature the term "windfall profits" can be found seeking the comparison to a lucky finding of a coin in the street. Such income is non-taxable at the time of inflow and does also not qualify as an acquisition process in the meaning of the Income Tax Act, i.e. the profits or losses resulting out of holding the cryptoassets received through an airdrop are also non-taxable since no private sales transaction is justified.

Another regime must be applied for bounties. Since the bounty recipient must perform certain tasks in order to be eligible to receive the bounty Tokens the usual income taxation regime applies. In conclusion the same taxation principles as for mining within the private sphere must be recognized.

Bounties received within the business sphere do qualify as business income and must be treated as revenues.

12.2 Forks happen within decentralized Token ecosystems

A second way to distribute Tokens without exchange of monetary consideration on the part of the Token Holder is through forks.

A distinction is made between soft and hard forks. Hard forks occur when existing blockchains split and two different blockchains are continued independently of each other after the split.

Soft forks are backwards compatible, i.e. it is not necessary that all nodes perform an update, because the new and old software can coexist. Soft forks add new rules to the existing set of rules. Nodes that do not update do not understand the new information, but accept new blocks, since they fully comply with the old set of rules. The new rules of consensus building are therefore considered valid by all nodes.

The reasons for a hard fork are very often disagreements between users, developers and miners of a cryptoasset. At the time of the hard fork, owners of the original cryptoasset receive an equal number of new Tokens in their wallet. At the time of the fork, part of the network separates from the original blockchain, forming an independent new network and thereby creating a new cryptoasset. The new coin is credited to the Token Holders of the original Token in their wallet. The time of the spin-off is called hard fork and means that coin owners all off the sudden hold two separate cryptoassets. At the latest when exchange service providers offer trading for both coins, investors in the original cryptoassets have a second asset to which a monetary value must be attached.

(a) Hard fork Tokens received within the private sphere

The Austrian MoF issued an opinion on taxation of hard forks⁴³ defining that in case of a hard fork the acquisition date of the original cryptocurrency balance is also the relevant acquisition date of the newly received coin. Therefore, the acquisition date of the original asset must be used for the forked coins and for the one-year period within the meaning of Article 31 Austrian Income Tax Act. The acquisition costs of the newly received cryptocurrency balance must be set at zero, which is why the

⁴³ https://www.parlament.gv.at/PAKT/VHG/XXVI/AB/AB_00382/imfname_691926.pdf

full selling price is taxable at the time of the taxable disposal, the acquisition costs of the previous cryptocurrency balance remain unchanged.

Example 4: Fork of the Bitcoin blockchain

Before the hard fork, A1 has 1 BTC. The acquisition cost for this bitcoin, which was acquired on 01.03.2017, amounts to EUR 2.000.00. On 01.08.2017 the hard fork takes place and A receives an additional 1 Bitcoin cash. A1 sold 1 Bitcoin Cash:

a. on 01.09.2017 for EUR 2.500,00

b. on 02.03.2018 for EUR 1.000,00

Solution:

For Bitcoin Cash acquired on August 1, 2017, the 1-year period is calculated using March 1, 2017 (date of acquisition of the original BTC). According to the Austrian Federal Ministry of Finance, the acquisition costs must be kept at zero euros.

a. As Bitcoin Cash will be sold for EUR 2.500 within the one-year period (calculated from 01.03.2017) on 01.09.2017, the capital gain is taxable. According to the MOF, the acquisition costs are zero, i.e. the entire EUR 2,500 gain is subject to income tax.

b. Since Bitcoin Cash will be sold for EUR 1.000 outside the one-year period (calculated from March 1, 2017) on March 2, 2018, the capital gain of EUR 1.000 is tax-free.

The overall principle of the new Token stepping in the legal footprint of the old Token seems to be enough for the acquisition date. In this regards a hard fork can be compared to a stock split or a taxneutral spin-off.

(b) Hard fork Tokens received within the business sphere

For hard fork Tokens received within the business sphere the same rules as described for the private sphere shall apply. Since the new Tokens share the tax relevant attributes of the old ones the capitalization prohibition of Article 5 para. 2 German Income Tax Act shall not apply or only if the old Token was also not acquired against payment.

12.3 Token swaps

A Token swap occurs in case the developers sold a preliminary Token – most of the time an ERC20-Token – and as soon as their blockchain network is established, the ICO-Token is replaced by the originate blockchain Token 1:1. Sometimes Token Issuers decide to move to another new or existing cryptographic protocol, thus requiring cryptoasset owners to move their Tokens from an existing wallet to a new wallet supported by the new protocol. The developers provide a special Token swap address to facilitate the swap offered for a specified period. After this period, owners may no longer swap the Tokens and they become worthless. The original Token gets "burned" or destroyed when it is sent to the swap address and a new Token is sent to the new wallet address of the Token Holder. Swaps themselves do not qualify as a taxable event provided the new Token issued represents the same legal claims as the old exchanged Token did.

For example, Storj, a file sharing project, originally issued its SCJX Token on the Counterparty protocol and moved afterwards to the Ethereum protocol, renaming the Token to STORJ. Token Holders had to burn their SCJX for STORJ on a 1:1 ratio basis. Another example is GNOSIS and TEZOS.

The swap is not a taxable event i.e. the acquisition costs of the origin Tokens still form the basis for the new Tokens. If the ratio applied does not equal 1:1, the basis is allocated on a pro-rata-basis with

the same total EUR amount. In conclusion, the same principles ("Fußstapfentheorie") as for hard fork Token shall be applied, with the non-tax-specific difference that the whole acquisition costs of the old Token get transferred to the new one since the old Token vanishes.

If legally a new Token is issued, the swap must be treated as taxable disposal of the exchanged Token at the time of exchange.

12.4 Staking and Masternodes

Staking means participating in the consensus process of a "Proof of Stake" based cryptographic algorithm blockchain. The Proof of Stake (PoS) concept states that a person can mine or validate block transactions depending on the amount of coins he or she holds. The probability of being chosen as creator of the next block, which of course comes with a corresponding block reward, depends on the share of coins the miner holds in comparison to the total amount of staked coins.

In general staking is associated with the same taxation and accounting treatments as mining.

Masternodes do not mandatorily participate in the consensus mechanism but get paid for securing the network by monitoring the blockchain, saving and sharing a local copy of it and providing other specific services. For accounting and taxation purposes income from staking equals income from operating masternodes.

13. Actions to be taken

There are some issues in accounting and taxation of cryptoassets that should be addressed as soon as possible. Any approach should bear in mind that cryptoassets are a cross-border and international phenomena and therefore should be addressed accordingly.

13.1 Outlining a unified recognition and measurement accounting standard for cryptocurrencies

As described in detail in Chapter 9, we believe that the application of existing local and IFRS Standards may provide inappropriate outcomes from the viewpoint of relevant financial reporting.

In our opinion a unified global recognition and measurement rule for cryptocurrencies should be set as soon as possible and should also form the guideline for developing local accounting guidelines.

Accounting Standard Setting bodies must enlarge their agenda for developing a new sub-topic to address the recognition (and derecognition), measurement (initial and subsequent), presentation and disclosure for cryptocurrencies. Cryptocurrencies are unique and unlike any other asset currently addressed in local and international financial reporting systems. Developing a new sub-topic would allow the standard setters to provide guidance that best represents the economic characteristics of cryptocurrencies.

13.2 Other accounting issues to be addressed

There are some other important accounting issues, where appropriate guidelines should be given to the financial statement issuers.

Many cryptoassets are Hybrid Tokens so even if their main purpose is to represent a right for a good or a right for regular interest payments, very often these Tokens are also used as a means of exchange. So, companies use Tokens to pay their day-to-day expenses and therefore use Tokens as their main means of exchange, unit of account and storage facility although probably the definitions for "currency", "cash", "cash equivalents", "financial asset" as prescribed in accounting announcements are not fulfilled.

In addition, the reporting currency, functional currency concept as well as how foreign currency items are to be recognized and measured should be reviewed due to changed circumstances and new concepts.

Disclosure requirements for cryptoassets should be addressed and unified as soon as possible.

13.3 Addressing open tax questions for cryptoassets

Due to the hype created in 2017 and the resulting price bubble of digital assets a lot of small unexperienced retail investors, not familiar with finance, asset management and compliance tasks joined the capital market. This led to a large crowd of individuals who potentially realized taxable gains through crypto to crypto transactions without being aware of any tax duties. Additionally, some unresolved tax questions regarding the taxation of cryptoassets leverages the risk of investors being uncertain about their legal position and most tax consultants not having enough knowledge in this niche. Tokens are unique and unlike any other asset currently addressed in local and international tax reporting systems. The importance to issue guidelines on tax reporting for trading and usage of cryptoassets in the private sphere is evident.

(a) VAT implications for Voucher Tokens

Even with the uniform application of the EU voucher ruling in all European countries, there are a lot of issues regarding the proper application of this ruling for such Tokens. Therefore, a uniform approach should be assured by local announcements and appropriate interpretation statements issued by local tax authorities. Clear guidance on the application of the EU Voucher ruling on the sale of Voucher Tokens is missing resulting in uncertainties about appropriate VAT implications for Token Sales and redemption of Voucher Tokens (compare discussion in chapter 8).

(b) Do cryptocurrencies always qualify as property?

In most European countries the tax authorities treat cryptocurrencies as property, thus subjecting them to personal income tax treatment and associated reporting requirements. This treatment hinders the use of cryptocurrencies as a method of payment, subjecting them to the calculation and reporting of capital gain/loss on each transaction and hindering the use of cryptocurrencies to facilitate micro-payments, another promising use for crypto currencies to reach a wide spectrum of potential participants in the financial system. We think that existing exemption limits like the general one for private sales transaction in the German Income Tax Act (Article 23) should be significantly increased or new exemption limits for the use of cryptocurrencies as alternative payment method must be introduced in order to allow a non-taxable usage of cryptocurrencies in the private sphere in a practical way. Another possibility to solve this challenge would be to exclude payments for objects for an individual's use concerning their private lifestyle from the private sales transaction regime.

(c) Guidelines for VAT implications of corporate investors using cryptoassets exchange platforms

According to the German MoF, trading on some cryptoassets exchange platforms does not qualify as VAT exempt financial services and therefore the transaction settlement should be subject to VAT. Beyond the associated responsibilities for cryptoassets exchange owners, this can also lead to implications on German-based users of such platforms. Considering that for those kinds of services the place in which the service is performed should usually be the user's country the reverse charge procedure can apply if the user is a corporate investor, i.e. the corporate user of the platform must identify and calculate the actual trading fee, include it into its tax declaration and pay VAT to the tax authorities. It also must be considered that corporate investors often do not have the right to input VAT deduction and are therefore actually economically affected by the VAT payments. It also strengthens the need to address this issue since VAT is not a pass-through item in these setups and can lead to tax fraud if not performed compliantly. The transaction fees are often not so easy to determinate, are paid in cryptoassets themselves and VAT must be reported on a monthly basis. This would put strong pressure on corporate investors to introduce such processes in order to be compliant. Therefore, clear guidance from the tax authorities is needed for the market participants to have a clear overview of the legal obligations and the associated risks.

(d) Harmonisation of income tax issues for Tokens within the EU

As currently taxes except VAT are not harmonised in the EU, founders shop around for the most favourable tax situation for launching Token Sales by setting up companies and foundations in countries different to the ones they are currently living and working in. Founders are not aware and are not adequately advised that substance over form is relevant. So, there is a risk that tax authorities judge those foundations as shell companies, resulting in a potential tax fraud risk so harmonisation of income tax issues for Token Sales within the EU should be a high-rated priority.