

## Treatment of virtual currencies and other tokens under German Income Tax Law

*Due to popular demand a courtesy translation of the Federal Ministry of Finance's circular „Einzelfragen zur ertragsteuerrechtlichen Behandlung von virtuellen Währungen und von sonstigen Token“ of 10 May 2022, Federal Tax Gazette I p. 668, is hereby provided. Please note the non-binding character of this translation and refer to the circular's German version for legal guidance on the income tax treatment of virtual currencies and other tokens.*

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### **I. Explanatory notes**

#### **1. Virtual currencies**

- 1 Based on Directive (EU) 2018/843 of 30 May 2018 amending Directive (EU) 2015/948 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, and amending Directives 2009/138/EU and 2013/36/EU (Official Journal of the European Union L 156 of 19 June 2018, pp. 43 to 74), virtual currencies within the meaning of this circular are a digital representation of value that is not issued or guaranteed by a central bank or a public authority and therefore does not possess a legal status of currency or money, but is accepted by natural or legal persons as a means of exchange and can be transferred, stored and traded electronically. Bitcoin, Ether, Litecoin and Ripple are some of the best

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known virtual currencies. Other examples of virtual currencies can be found on the website <https://coinmarketcap.com/de>.

### 2. Token

- 2 “Token” is an umbrella term for digital units that have been assigned specific claims and rights, and that have different functions. Tokens can be issued as payment for services within a network or centrally by a project initiator. Issuing tokens, for example as part of an initial coin offering (ICO, see paragraph 25), is an alternative means of raising funds, particularly for start-ups.
- 3 A distinction can be made between the following three types of token in particular:
  - Currency or payment tokens are tokens that are used as a means of payment. This circular uses the term “virtual currency” for these tokens (see paragraph 1).
  - Utility tokens give the holder specific usage rights (e.g. access to a possibly yet to be created network) or the right to exchange the tokens for a specific, possibly yet to be created, product or service. Utility tokens may also give the holder the right to vote on changes to the software and thereby the functionality of the product or service.
  - Security tokens are tokens that are comparable with conventional securities pursuant to point 44 of Article 4 (1) of Directive 2014/65/EU (“MiFID II”), especially conventional debt instruments and equity instruments. There is a difference between
    - equity tokens, which give the holder participation rights and/or dividend rights (e.g. shares) and
    - debt tokens, which entitle the holder to a repayment of the invested sum, including interest where applicable, as is the case with loans or profit participation rights, for example.
- 4 Tokens can also be a combination of the categories described above (hybrid tokens). The terms crypto-asset and crypto-security are used in supervisory law. With regard to income tax treatment, every token needs to be considered in its own right regardless of its classification. For example, a utility token that also functions as a means of payment should be treated as a virtual currency for income tax purposes in cases where it is used as a means of payment.
- 5 While virtual currencies often have their own blockchain, utility tokens and security tokens use already existing blockchains (see paragraph 6).

### 3. Blockchain

- 6 A blockchain is a database, usually without a central authority, with multiple participants that uses distributed ledger technology (DLT). A distributed ledger is an information repository that is shared across, and synchronised between, a set of DLT nodes (e.g. computers connected to the internet) using a consensus mechanism. It is designed so that existing entries cannot be manipulated or altered and only new entries can be added. In the context of virtual

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currency, a blockchain is a decentralised database based on DLT in which all confirmed transactions are recorded. It can be compared to a decentrally managed cash book. The transaction data is stored in blocks that are sequentially linked, like a chain, to which new blocks are constantly added. The block with which the blockchain begins is called a genesis block or block 0. Each block contains a long cryptographic string of characters, known as a hash, which is calculated based on the content of the block that preceded it. The calculation therefore also incorporates the hash of the previous block, which in turn was calculated based on the block that came before it. As a result, if for example a transaction in a block is subsequently changed, the hashes no longer correspond with those of the original blockchain and the manipulation becomes visible to all.

### **4. Acquiring units of virtual currency through block creation**

- 7 In many blockchains, aggregating transactions into new blocks and adding these to the blockchain is rewarded with newly released units of virtual currency or other tokens (block reward), which are usually paid out in coinbase transactions. In these cases, the block creator receives a block reward with the first transaction of a block. Block creators also often collect transaction fees for transactions included in the block.
- 8 There are various ways of adding a new block. Currently the two best-known mechanisms are proof of work, referred to as mining (from gold mining), and proof of stake. To distinguish it from mining, proof of stake is also referred to as forging or minting, and sometimes more generally as staking. In proof of stake, block creators are called forgers or validators. This circular uses the term “forging” when referring to proof of stake block creation.
  - a) **Proof of work (mining)**
- 9 In proof of work, the first miner to find a random number or “nonce” (number that can only be used once) by trial and error has the right to create a block. The nonce, together with the transactions selected for the block and the hash of the preceding block, results in a hash that begins with a certain number of zeros. The difficulty and hence also the duration of the search can be influenced by defining the number of zeros at the beginning of the hash.
- 10 Due to the computing power needed to find a nonce by trying out different random numbers, block creators (miners) often work together in mining pools. They each contribute to the required computing power by trying to find a hash within the range of possible nonces that have been assigned to them. If a mining pool succeeds in creating units of virtual currency, these are distributed among the participating miners. The mining pool operators take on a coordinating role.
- 11 Cloud mining services also operate server farms that specialise in mining. They sell or rent some of their mining capacity to people that then use it to mine.

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### **b) Proof of stake (forging)**

- 12 With proof of stake, the next block creator is selected in a weighted random selection process. Depending on the protocol's design, the chance of being allowed to add a block to the blockchain and of collecting the block reward and transaction fees increases e.g. the longer the participation period or the higher the staked unit of a virtual currency (the stake). A stake refers to a number of units of virtual currency that owners lock in for a certain period of time so that, as a rule, they cannot access them. In this way the block creators demonstrate to the network that they are committed to a proper and orderly block creation. If errors are made or there is any manipulation in the block creation, the units of virtual currency used as a stake may be confiscated or deleted, depending on the design of the protocol.

### **5. Staking and how it differs from block creation through proof of stake (forging)**

- 13 With proof of stake, the idea is that block creators (known as forgers or validators) use only their own units of virtual currency as a stake. But it is also common for users to provide units of virtual currency for a stake without being involved in the block creation themselves as forgers. This is usually done by participating in a staking pool, which is already provided for in the respective blockchain protocol. The units of virtual currency are locked in but not transferred. A staking pool has a higher chance of being selected as the next forger. The participants receive remuneration from the forgers who collect the block reward and the transaction fees. Some trading platform operators such as Kraken and Coinbase also offer the option to participate in a staking pool (platform staking). In practice, a distinction is not always made between the activity of forgers and the mere provision of a stake (without being involved in block creation), and the general term "staking" is used to describe both processes. This circular, however, uses the term "staking" only for the provision of a stake without being involved in block creation.

### **6. Master node**

- 14 Every blockchain network consists of different nodes (see paragraph 6) which perform the network's functions, e.g. storing a full copy of a blockchain, or creating blocks. A master node also performs additional tasks such as processing anonymous and confidential transactions or instant transactions. Furthermore, operators of master nodes are often entitled to participate in decision-making processes regarding rules for the structure and operational organisation of blockchains (governance) and to exercise voting rights. The tasks and voting rights of a master node can vary considerably depending on the virtual currency and on the protocol.
- 15 Depending on the respective blockchain's design, operating the master node is also remunerated. In order to operate a master node, it is necessary in most cases to couple a certain number of units of virtual currency to the node. If the units of virtual currency are

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uncoupled from the master node, the master node loses its functionality and the operators lose their right to receive remuneration.

### **7. Wallets, keys and transactions**

- 16 As a rule, a wallet is needed in order to receive, hold and transfer units of virtual currency. This also applies to other tokens depending on their specific features.
- 17 Although it is called a wallet, it would be more accurate to describe it as a key ring. The wallet itself does not contain any virtual currency units or other tokens; these remain in the blockchain at all times. Rather, it is an application for creating, administering and storing private and public keys.
- 18 The public key is used to allocate the units of virtual currency or other tokens in the underlying blockchain. It can be compared with an account number or email address and functions in particular as a receiving address for transactions. With a public blockchain, it is usually possible for anybody to view the number of units of virtual currency or other tokens associated with a particular public key as well as all transactions made using that key. A private key is known only to the owner. It is used as a password or to generate digital signatures for transactions (see paragraph 21). Every private key can have multiple public keys.
- 19 There is no limit to the number of wallets a person can have. As a rule, every virtual currency requires its own wallet, as public keys are dependent on the underlying blockchain. A wallet is installed on a computer as a software application (software wallet) or is available as a hardware wallet in the form of an external hard drive or USB stick. A wallet can also be created by printing it out on paper (paper wallet). It is also possible to use a browser-based wallet. With this kind of wallet, some providers act as custodians of the public and private keys, and in some cases a common wallet is used for a large number of people.
- 20 It is possible to browse through past transactions using a software wallet or block explorer – a kind of search engine for blockchains. However, it is not necessary for the recorded inflow and outflow of units of virtual currency and other tokens to correspond with the acquisition or disposal date relevant for income tax. The reason for this is that nowadays units of virtual currency and other tokens are often traded on platforms like Coinbase. Units of virtual currency or other tokens are transferred to a personalised account on a trading platform and only booked back to the user's own wallet at a point in time after the disposal or acquisition via the platform. The acquisition or disposal date is therefore the date the units of virtual currency were traded on the platform. The same applies if taxpayers do not own their own wallet and the units of virtual currency or other tokens are held on the taxpayer's behalf by the trading platform.

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- 21 In the course of a transaction, a data unit is generated which contains the hash of the recipient's public key, a hash based on the data unit of the previous transaction(s) and a signature generated with the private key based on both hashes. The transaction generated in this way is then sent to a (storage) pool. Users operating a node (see paragraph 6) with a block creation function take the transaction data from the pool, check that the transaction is valid based on the signature and then add it to the blockchain with a new block, thereby effectuating the transaction. If the recipient wants to further transfer the units of virtual currency or other tokens, this requires another transaction validated by a private key.
- 22 Units of virtual currencies and other tokens are also traded directly on trading platforms, in which case the described processes are automated. A practical example is the use of debit cards. Users provide units of virtual currency and can then use their card to make payments with the virtual currency. The credit card company converts the units of virtual currency into euros and processes the payment.

### **8. Accounting (UTXO, account-based method)**

- 23 There are two main methods for determining the balance of units of virtual currency in a wallet. In the case of Bitcoin and several other virtual currencies (especially Cardano), the balance is recorded as the total of the "unspent transaction output" (UTXO), in other words the difference between the input and output. Units of value (coins) are formed for every input and output. If only parts of a coin are sold, the remainder flows back into the person's wallet as change (or change output).

#### **Example:**

*A has acquired 0.01 bitcoins in an initial transaction and 0.02 bitcoins in a subsequent transaction . The balance of unspent transaction outputs (UTXOs) is 0.03 bitcoins.*

*Now A sells 0.025 bitcoins to B. To complete the transaction three outputs are necessary:*

- (1) Output of 0.025 bitcoins to B's wallet.*
- (2) Output of 0.001 bitcoins as a transaction fee.*
- (3) Output of the remaining balance ("change") of 0.004 bitcoins back to A's wallet.*

- 24 The second method, known as the account-based method, is used for example for Ether, EOS and Tron. It functions similarly to a bank account, in that inputs and outputs are booked in an asset account so that the balance is continually adjusted.

### **9. Initial coin offerings (ICOs)**

- 25 The term initial coin offering (ICO) is based on the term initial public offering (IPO). In an IPO, a company's existing shares or shares from a capital increase are offered on the capital market. However, while this kind of initial offering involves the sale of shares, an ICO involves the issuance of tokens in exchange for units of virtual or government-issued currency. Like an IPO, an ICO is used to raise capital.

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### 10. Lending

- 26 With lending, units of virtual currency or other tokens are loaned for use in exchange for a fee.

### 11. Fork (hard fork)

- 27 A fork is what happens when a blockchain on which a virtual currency is based is split or diverges. Hard forks are the most relevant forks when it comes to income tax. Virtual currencies are based on the open-source idea. This means that the source code of the virtual currency is publicly available and can be used and modified for free. The source code can be viewed, downloaded and modified by anyone. It may develop in a direction that the original developers of the virtual currency do not want to support, but which is now favoured by a majority or at least a significant minority of the network's users. As a result, differences of opinion regarding how the blockchain should be further developed can arise within the network and – based on the open-source principle – can only be resolved by consensus. If a consensus cannot be reached, the blockchain is forked. This results in an additional version of the virtual currency that coexists with the original version. Following the split, the blockchains of the two virtual currencies continue to develop separately. In the course of the forking process, holders of units of the virtual currency that existed before the hard fork receive an equal number of units of the new virtual currency in addition to their units of the original virtual currency at no extra cost.
- 28 With a soft fork, too, the blockchain underlying the virtual currency in question is further developed. However, with a soft fork all nodes can continue to process all blocks, which means that the virtual currency is not split.

### 12. Airdrop

- 29 With an airdrop, units of virtual currency or other tokens are distributed for “free”. Usually these are marketing stunts of one kind or another. For example, an airdrop might require participants to fill in several online forms with the aim of collecting customer data. Other airdrops require participants to promote the project on social media. In the case of bigger airdrops, sometimes only a certain percentage of the participants who fulfil the requirements receive the units of virtual currency or other tokens being distributed, for example based on a random selection process. However, an airdrop can also take place in such a way that units of virtual currency or other tokens are transferred to the owner of a public key without any action having to be taken on their part (see paragraph 18).



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### II. Classification for income tax purposes

30 Activities in connection with units of virtual currency or with other tokens may – depending on the circumstances of the particular case and having regard to the information set out in the following – result in income in any income category (section 2 (1) sentence 1 of the Income Tax Act (Einkommensteuergesetz)). Specific categories that come into question include commercial income (Einkünfte aus Gewerbebetrieb, section 15), income from employment (Einkünfte aus nichtselbständiger Arbeit, section 19), investment income (Einkünfte aus Kapitalvermögen, section 20), income from private sales transactions (Einkünfte aus privaten Veräußerungsgeschäften, section 22 no 2 in conjunction with section 23) and other income (sonstige Einkünfte, section 22 no 3).

#### 1. The asset nature of virtual currencies and other tokens

31 Individual units of virtual currency and other tokens are assets. They embody the ability to assign to another public key the economic benefit assigned to the owner’s public key. They can be valued on the basis of a market price that, as a rule, can be determined from exchanges (such as the Börse Stuttgart Digital Exchange), trading platforms (such as Kraken, Coinbase or Bitpanda) or listings (such as <https://coinmarketcap.com/>).

32 Assets are attributable to their owner. The beneficial owner is whoever can initiate transactions and thus has “control” over which public keys the units of virtual currency or other tokens are assigned to. As a rule, this is the owner of the private key. However, attribution to the beneficial owner is unaffected if transactions are initiated via platforms that store private keys or assign them on the beneficial owner’s instructions (see paragraph 19).

#### 2. Income in connection with block creation through proof of work (mining) or proof of stake (forging)

33 Mining and forging are acts that constitute an acquisition (Anschaffung). Acquisition is the purchase, for valuable consideration, of a pre-existing or already present asset from a third party, as opposed to production (Herstellung), which is creating, or causing to be created, an asset that did not previously exist (Decision of the Federal Fiscal Court (Bundesfinanzhof) of 2 May 2000; IX R 73/98, Federal Tax Gazette II p. 614 and of 2 September 1988, III R 53/84, Federal Tax Gazette II p. 1009). Although the units of virtual currency issued to a block creator are put into circulation for the first time on block generation, all units of the virtual currency are already established on creation of the blockchain’s genesis block. Block creators have no influence on the features of newly released units of virtual currency. Because of this, block creation is to be distinguished from the situation of the issuer in an ICO, who determines the features of the issued tokens and hence also produces them. The body of parties who have rights to the blockchain grant the released units in exchange for service provided by block creators. Transaction fees are also paid in exchange for the service

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provided by block creators. Both cases therefore constitute a purchase for valuable consideration from a third party.

- 34 Mining and forging can be a private or a commercial activity, depending on the circumstances of the particular case. The income includes both the block reward and the transaction fees paid.

### **a) Commercial income (Einkünfte aus Gewerbebetrieb) under section 15 of the Income Tax Act**

- 35 If income from block creation is not already categorised as commercial income on account of an entity's legal form, classification as a commercial activity depends on whether the criteria are met for a commercial operation under section 15 (2) of the Income Tax Act.
- 36 Block creation is deemed to be a sustained activity if it is intended to be repeated (see Amtliches Einkommensteuer-Handbuch 2021 [Official Income Tax Handbook 2021] (EStH 2021), H 15.2 (Wiederholungsabsicht [intention to repeat])).
- 37 It must be capable of generating a profit over the long term (see EStH 2021, H 15.3 (Totalgewinn [Enterprise lifetime net profit])).
- 38 Block creators already participate in general economic activity by virtue of the fact that they make their computing power available to network participants in order to verify transaction data and include that data in a new block to be created on the blockchain. The fact that the block reward depends on the completed creation of the block does not exclude participation in general economic activity.
- 39 Block creation does not constitute private asset management. In both mining and forging, block creators receive block rewards and transaction fees in exchange for the creation of new blocks. This activity thus matches the profile of a service provider (Dienstleister).
- 40 Block creation by a mining pool may meet the criteria for co-entrepreneurship depending on the specific contractual arrangement. The general rules for assuming co-entrepreneurship apply (see EStH 2021, H 15.8 (1) (Allgemeines [General])). There is no co-entrepreneurship if individual miners merely provide mining pool operators with computing power for consideration in a service relationship. A staking pool does not, as a rule, constitute co-entrepreneurship.

### **aa) Capital comparison method**

#### **aaa) Assets**

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41 See paragraph 31 for the asset nature of virtual currencies and other tokens. Units of virtual currency are non-depreciable assets that are categorised under tangible assets and classified as fixed or current assets in accordance with general tax law accounting principles. If classified as fixed assets, they are presented under long-term financial assets within the meaning of section 266 (2) A. III. of the Commercial Code (Handelsgesetzbuch); if classified as current assets, they are presented under other assets within the meaning of section 266 (2) B. II. 4 of the Commercial Code.

### **bbb) Initial valuation**

42 Units of virtual currency or other tokens that are allocated for block creation or as a transaction fee are deemed to be acquired (exchange-like transaction – see also paragraph 33).

43 The acquisition cost is the market price at the time of acquisition of the units of virtual currency or other tokens (by inference from section 6 (6) sentence 1 of the Income Tax Act). If a quoted price on an exchange is available, this is to be taken as the market price. If there is no quoted price on an exchange, the price can be taken from a trading platform (such as Kraken, Coinbase or Bitpanda) or from a web-based listing (such as <https://coinmarketcap.com/>).

### **bb) Cash basis accounting**

44 Where profit is determined on a cash accounting basis in accordance with section 4 (3) of the Income Tax Act, additions of units of virtual currency and other tokens in an exchange-like transaction result in business income. Units of virtual currency, as unsecuritised receivables and rights comparable to securities, are to be regarded as assets within the meaning of section 4 (3) sentence 4 of the Income Tax Act whose acquisition cost (section 6 (6) of the Income Tax Act – see paragraph 43) is not to be deducted as a business expense until the time of receipt of the selling proceeds or, in the case of withdrawals, the time of the withdrawal. The assets are to be included in the inventory lists to be maintained under section 4 (3) sentence 5 of the Income Tax Act.

### **b) Other income from rendering of service (sonstige Einkünfte aus Leistungen) within the meaning of section 22 no 3 of the Income Tax Act**

45 Income from block creation that does not come under any other income category is taxable as rendering of service under section 22 no 3 of the Income Tax Act. This may be the case, for example, if the criterion of commercial activity under section 15 (2) of the Income Tax Act is not met because the activity is not sustained (see paragraph 36). Such income is not subject to income tax if, together with other income from rendering of service, it amounts to less than €256 per calendar year (section 22 no 3 sentence 2 of the Income Tax Act).

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46 Rendering of service is defined for this purpose as any active, passive or non-commercial conduct on the part of the taxpayer. The link between the rendering of service and the consideration does not need to be synallagmatic (reciprocal). Neither is it necessary for the parties rendering the service (in this case, block creators) already to expect a consideration when doing so. Instead, it is sufficient for a consideration given in connection with their conduct (doing, permitting, or refraining from doing) to be accepted by them as such. By doing so, they bring their conduct within the ambit of economic activity and hence of taxation (Federal Fiscal Court decision of 24 April 2012, IX R 6/10, Federal Tax Gazette II p. 581). For this purpose, there is no distinction to be made between block rewards and transaction fees. This also applies to participation in mining and staking pools or in cloud mining services.

47 Under section 8 (2) sentence 1 of the Income Tax Act, the units of virtual currency obtained by way of block creation are recognised at their market price at the time of acquisition (for determination of the market price, see paragraph 43). Deductible income-related expenses (Werbungskosten) include, for example, expenditure for the purchase of the necessary hardware and software (where applicable in the form of tax depreciation) and for electricity.

### **3. Income from the use of virtual currency units for staking**

48 Income from staking in the sense used here of putting up a stake without being involved as a forger in block creation – participation in a staking pool, or platform staking – is generally subject to taxation under section 22 no 3 of the Income Tax Act as gains that are classified under private asset management. In exchange for their service (temporarily forgoing the use of units of virtual currency), taxpayers receive consideration in the form of additional units of virtual currency (see paragraph 46). The units of virtual currency obtained are valued at their market price at the time of acquisition (for determination of the market price, see paragraph 43).

49 In so far as staked units of virtual currency are business assets, the consideration constitutes business income. The units of virtual currency received for staking are recognised as assets (increasing profit) at the market price (see paragraph 43) at the time of receipt.

### **4. Income from operation of a master node**

50 In so far as taxpayers generate income from a master node or other node, the comments on block creation under proof of stake in paragraphs 33 to 39 apply with the necessary modifications.

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### **5. Income from the sale of units of virtual currency or other tokens**

#### **a) Income tax treatment in the case of business assets**

- 51 If the units of virtual currency or other tokens are business assets, the selling proceeds are business income. Because the output of each transaction refers back to previous blocks, units of virtual currency and other tokens can be traced and identified, as a rule, back to the original (coinbase) transaction. When determining the capital gain, the individual acquisition cost – less depreciation if applicable – of the sold units of virtual currency and other tokens is deducted. In departure from this, if the individual acquisition cost cannot be determined and individually attributed in a particular case, the units may be valued at the average acquisition cost.
- 52 If units of virtual currency or other tokens are repeatedly bought and sold (including swapping them for units of other virtual currencies or other tokens), such trading may constitute a commercial activity. This can be distinguished from private asset management by applying the criteria for commercial securities and foreign exchange trading (see EStH 2021, H 15.7 (9) (An- und Verkauf von Wertpapieren [Purchase and sale of securities]))

#### **b) Income tax treatment in the case of private assets**

- 53 Units of virtual currency and other tokens are an “other asset” within the meaning of section 23 (1) sentence 1 no 2 of the Income Tax Act (see paragraph 31). Profits from the sale of units of virtual currency and other tokens held as private assets therefore constitute income from private sales transactions under section 22 no 2, in conjunction with section 23 (1) sentence 1 no 2 of the Income Tax Act, if the length of time between acquisition and sale is no more than one year (for the specific income tax treatment of utility and security tokens, see paragraph 77 et seqq.). It is not necessary to establish the intention to generate income as this is already objectively established by a sale within the holding period. However, under section 23 (3) sentence 5 of the Income Tax Act, the gains remain tax-free if the sum total of the gains generated from all private sales transactions per calendar year (the total gain) is less than €600.
- 54 An acquisition transaction and a sale transaction are required. An acquisition is a purchase from a third party for valuable consideration. This includes, in particular, units of virtual currency or other tokens obtained in connection with block creation (see paragraph 42) and, depending on the circumstances, units of virtual currency or other tokens obtained in an ICO or airdrop (see paragraph 75). Units of virtual currency or other tokens are also considered to be purchased for valuable consideration if the taxpayer has acquired them in exchange for units of a government-issued currency (such as euros), for goods or services or for units of another virtual currency or other tokens or if the units of virtual currency or other tokens, if applicable, have been obtained by lending and staking. As the mirror image of an acquisition, the transfer of the acquired asset to a third party for valuable consideration constitutes a sale. An exchange of units of virtual currency or other tokens for units of a government-issued

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currency (such as euros), for goods or services or for units of another virtual currency or other tokens is therefore a sale.

55 The holding periods under section 23 (1) sentence 1 no 2 of the Income Tax Act restart on each such exchange. In the case of acquisition or sale on a trading platform, the one-year holding period is determined on the basis of the dates and times recorded on the platform. For reasons of simplicity, in the case of direct purchase or direct sale without an intermediary, the dates and times recorded in the wallet are generally to be used. If the question of whether the one-year holding period has been exceeded is sought to be resolved by reference to a contract of sale, the taxpayers must prove the time of formation of contract by means of suitable documents.

56 If taxpayers sell units of virtual currency or other tokens where the amount of virtual currency or tokens in a wallet is determined using the UTXO model and where any unsold portion (change output) is returned to the sender's wallet (see example in paragraph 23), the change output will be treated for tax purposes on the basis of the acquisition data of the sold coin.

### **aa) Determination of the capital gain**

57 The gain or loss from a sale of units of virtual currency and other tokens is determined as the sale proceeds less acquisition costs and income-related expenses.

58 In the case of a sale in euros, the sale proceeds are the agreed valuable consideration. If units of virtual currency or other tokens are exchanged for units of another virtual currency or other tokens, the sale proceeds from the units of virtual currency or other tokens given in exchange are the market price, on the exchange date, of the units of the other virtual currency or other tokens received in exchange (for determination of the market price, see paragraph 43). If it is not possible to determine a market price for the units received, the market price of the units given in exchange may be used instead.

59 The market price of the units of virtual currency or other tokens given in exchange – plus any incidental expenses – also constitutes the acquisition cost, on the exchange date, of the units of virtual currency or other tokens received in exchange. Transaction fees paid in connection with the sale are to be taken into account as income-related expenses.

60 If units of virtual currency and other tokens are given in exchange for a service or for goods, the sale proceeds from the sale of the units of virtual currency and other tokens given in exchange are the agreed valuable consideration in euros. If an express amount is not specified for the valuable consideration, the sale proceeds are the market price of the units of virtual currency or other tokens given in exchange.

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### **bb) Sequence of use**

- 61 The sequence of use of sold units of virtual currency and other tokens is determined on a unit-by-unit basis (see paragraph 51). If this is not possible, then for the purposes of the holding period the units of virtual currency or other tokens acquired first are deemed to be sold and the value is determined using the average (see Federal Fiscal Court decision of 24 November 1993, X R 49/90, Federal Tax Gazette II 1994 p. 591). For reasons of simplicity, it may be assumed for the purposes of determining the value that the tokens acquired first are sold first (first in, first out, or FIFO).
- 62 The analysis is on a wallet-by-wallet basis. The selected method must be retained until all units of the virtual currency or specific kind of other token in the wallet have been sold. The method may be changed after the sale of all units of the virtual currency or specific kind of other token in the wallet and the subsequent purchase of new units of the same virtual currency or other token. If units of multiple virtual currencies or multiple kinds of other token are held, the method may be elected separately for each virtual currency and each kind of other token.

### **cc) No extension of the holding period to ten years**

- 63 The extension of the holding period under section 23 (1) sentence 1 no 2 sentence 4, of the Income Tax Act does not apply to virtual currencies.

## **6. Income from the use of units of virtual currency or other tokens for lending**

### **a) Income tax treatment in the case of business assets**

- 64 Income from the lending of units of virtual currency or other tokens that constitute business assets are business income. Units of virtual currency or other tokens received for lending are acquired, and they are valued at their market price at the time of receipt (for determination of the market price, see paragraph 43). Either a gain or a loss is realised on sale. For cash basis accounting, see paragraph 44.

### **b) Income tax treatment in the case of private assets**

- 65 Income from lending is taxable under section 22 no 3 of the Income Tax Act. Income from lending is generated on the basis of rendering of service by the taxpayer. Units of virtual currency or other tokens received for lending are acquired, and they are valued at their market price at the time of acquisition (for determination of the market price, see paragraph 43). For the sale of units of virtual currency or other tokens received for lending, please refer to the comments in paragraphs 53 et seqq.

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### **7. Income tax treatment of units of virtual currency received from hard forks**

#### **a) Income tax treatment in the case of business assets**

- 66 If units of a virtual currency are business assets and a hard fork results in units of a new virtual currency that are also business assets, then the units of the separate virtual currencies constitute separate assets.
- 67 With units of virtual currency, taxpayers always have the possibility of receiving additional units of a new virtual currency as a result of a hard fork of the underlying blockchain. If units of virtual currency are acquired (see in particular paragraph 42), units of a virtual currency newly created as a result of a subsequent hard fork are also deemed to be acquired. The acquisition cost of the units of the virtual currency predating the hard fork is allocated to those assets. The allocation scale is based on the ratio of the market prices of units of the separate virtual currencies at the time of the hard fork (for determination of the market price, see paragraph 43). If no value can be attributed to the units of the newly created virtual currency after a hard fork, the acquisition cost remains with the units of the virtual currency predating the hard fork. For cash basis accounting, see paragraph 44.

#### **b) Income tax treatment in the case of private assets**

- 68 A hard fork does not result in income under section 22 no 3 of the Income Tax Act. If, however, units of a new virtual currency resulting from a fork are sold, the gain is taxable as income from private sales transactions under section 22 no 2 in conjunction with section 23 (1) sentence 1 no 2 of the Income Tax Act if the units of the virtual currency predating the hard fork were acquired and the time span between that acquisition and the sale does not exceed one year (see paragraphs 67 and 53 et seqq.). For the allocation of the acquisition cost, see paragraph 67. The acquisition date of the units of the new virtual currency corresponds to that of the units of the virtual currency predating the hard fork.

### **8. Income tax treatment of units of virtual currency and other tokens received from airdrops**

#### **a) Income tax treatment in the case of business assets**

- 69 In so far as the receipt of units of virtual currency or other tokens is business-related, it constitutes business income. The units of virtual currency or other tokens are valued at the market price as of the time of receipt (for determination of the market price, see paragraph 43). For cash basis accounting, see paragraph 44. Either a gain or a loss is realised on sale.

#### **b) Income tax treatment in the case of private assets**

##### **aa) Other income from rendering of service (sonstige Einkünfte aus Leistungen) under section 22 no 3 of the Income Tax Act**



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- 70 The receipt of additional units of a virtual currency or other tokens may result in other income from rendering of service within the meaning of section 22 no 3 of the Income Tax Act. This is the case – despite the marketing nature of many airdrops – if interested parties are required to render a service (see paragraph 46), and hence in particular in the case of active engagement such as referring to the airdrop or the project initiator in social media posts. Taxpayers also engage in rendering of service within the meaning of section 22 no 3 of the Income Tax Act if they upload images, photos or videos of their own to a platform and receive units of virtual currency or other tokens in return, even if ownership of the images, photos or videos remains with the taxpayer.
- 71 If the allocation of units of virtual currency or other tokens is conditional upon taxpayers providing data that goes beyond the information needed for the transaction, then that provision of data constitutes rendering of service within the meaning of section 22 no 3 of the Income Tax Act, for which they receive units of virtual currency or other tokens as consideration. This is assumed in any case if taxpayers are obliged to, or have to agree to, make available personal data in connection with an airdrop. Unlike participation in a conventional rebate system or prize draw for which, among other things, a postal address has to be provided for identification purposes, the taxpayer’s public key suffices for allocation of an airdrop.
- 72 If an airdrop is designed in such a way that, in addition to rendering of service, the receipt of units of virtual currency or other tokens is partly decided by “chance” (see paragraph 29), then the necessary link between the rendering of service and the consideration is rendered obsolete by the “chance” element.
- 73 The units of virtual currency or other tokens are recognised at their market price at the time of acquisition (for determination of the market price, see paragraph 43). In cases where it is not yet possible to determine a market price at the time of acquisition, no objection is to be raised if units of virtual currency or other tokens received in an airdrop are recognised at €0.
- 74 If there is no economic connection between the allocation of units of virtual currency or other tokens and a rendering of service, then it may constitute a gift for which the tax rules on gifts apply.

**bb) Income from private sales transactions (Einkünfte aus privaten Veräußerungsgeschäften) under section 22 no 2 in conjunction with section 23 (1) sentence 1 no 2 of the Income Tax Act**

- 75 If units of virtual currency or other tokens are allocated on the basis of a rendering of service within the meaning of section 22 no 3 of the Income Tax Act, then they are also deemed to be

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acquired. The acquisition cost is recognised at the value of the data provided or of the action performed. There is a rebuttable presumption that the value of the data provided or of the action performed corresponds to the market price of the consideration (for the determination of the market price, see paragraph 43; and for recognition at €0 in the event no market price can be determined, see paragraph 73). Because of the acquisition, a later sale of the allocated units of virtual currency or other tokens may be taxable as a private sale transaction (unless there is investment income); reference is made to the comments in paragraph 53 et seqq. In the case of acquisition free of charge, the acquisition by the legal predecessor applies (section 23 (1) sentence 3 of the Income Tax Act).

### **9. Initial coin offerings (ICOs)**

- 76 In an ICO, tokens are issued by the issuer. In the issuer's business assets, they may – depending on their structure – constitute equity (capital provided for an indefinite period) or debt (capital provided for a finite period). For income tax purposes, they must be classified on the basis of their legal substance. The income tax treatment follows the general principles. At the issuer, the tokens are internally generated assets that are recognised at production cost. When the tokens are exchanged, such as for units of virtual currency, or sold, the issuer realises a gain or a loss unless matching liabilities or equity amounts are to be recognised on the equity and liabilities side of the balance sheet. It must be examined in the particular case whether the token issue terms create contractual obligations towards token holders that have to be recognised as a liability or a provision if they meet the criteria for doing so.

### **10. Specific income tax treatment of utility and security tokens**

#### **a) Income tax treatment in the case of business assets**

- 77 For income tax purposes, a distinction is made according to whether the tokens confer a special legal position on holders. Tokens may have to be recognised as assets in financial assets or as receivables. Their remaining treatment is on the basis of the general accounting principles. For cash basis accounting, see paragraph 44.

#### **b) Income tax treatment in the case of private assets**

- 78 How the income is classified for income tax purposes depends on the rights and entitlements embodied in the tokens in the particular case.

#### **aa) Utility tokens**

- 79 A redemption of utility tokens is irrelevant for income tax purposes (Federal Fiscal Court decision of 6 February 2018, IX R 33/17, Federal Tax Gazette II p. 525). There is not a sale, as there is no transfer to a third party for valuable consideration if the entitlement to a product or service embodied in the tokens is merely redeemed and the product or service received by use of the tokens.

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80 If acquired utility tokens are sold, there may be income from private sales transactions under section 22 no 2 in conjunction with section 23 (1) sentence 1 no 2 of the Income Tax Act. This also applies if utility tokens are used as a means of payment (hybrid tokens). Reference is made to the related comments in paragraph 53 et seqq.

### **bb) Security tokens**

81 Depending on how they are structured, tokens may also be deemed to be securities or other financial instruments. According to an advisory letter by BaFin of 20 February 2018 - WA 11-QB 4100-2017/0010<sup>1</sup> – for tokens to be deemed securities within the meaning of section 2 (4) in conjunction with section 2 (1) of the Securities Trading Act (Wertpapierhandelsgesetz), they have to meet the following criteria in particular:

- transferability,
- negotiability on the financial market or capital market; trading platforms for units of virtual currency can, in principle, be deemed financial or capital markets within the meaning of the definition of a security,
- the embodiment of rights in the token, i.e. either shareholder rights or creditor claims or claims comparable to shareholder rights or creditor claims, which must be embodied in the token,
- the token must not meet the requirements for an instrument of payment (as set out in section 2 (1) of the Securities Trading Act or Article 4(1)(44) of the Markets in Financial Instruments Directive (MiFID II)).

82 Under section 2 (1) of the Securities Trading Act and Article 4 (1) 44 of MiFID II, it is not mandatory for a token to be a certificated security in order to qualify as a transferable security. Rather, it is sufficient if the holder of the token can be documented, for example by means of distributed ledger or blockchain technology, or through comparable technologies.

83 The income tax treatment of current income under section 20 (1) no 1 or no 7 of the Income Tax Act and of the capital gains under section 20 (2) sentence 1 no 1 or no 7 of the Income Tax Act depends on how the tokens are structured in the particular case.

84 If the right embodied in a token is a bond, the classification of the resulting income or gains for income tax purposes depends on whether it establishes a financial claim (Kapitalforderung) within the meaning of section 20 (1) no 7 of the Income Tax Act or merely a non-financial claim.

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<sup>1</sup> Advisory letter by the Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht – BaFin) of 20 February 2018 – WA 11-QB 4100-2017/0010 (<https://www.bafin.de> → Publikationen & Daten → BaFinJournal → Fachartikel → Initial Coin Offerings: BaFin veröffentlicht Hinweisschreiben zur Einordnung als Finanzinstrumente).

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- 85 If the bond solely embodies a claim to delivery of a fixed quantity of units of virtual currency or other tokens deposited with the issuer or a claim to a payout by the issuer of proceeds from the sale of units of virtual currency or other tokens, then there is not a financial claim within the meaning of section 20 (1) no 7 of the Income Tax Act but a non-financial claim. The Federal Fiscal Court rulings on Xetra-Gold bearer bonds (see Federal Fiscal Court decisions of 12 May 2015, VIII R 35/14, Federal Tax Gazette II p. 834 and VIII R 4/15, Federal Tax Gazette II p. 835 and Federal Fiscal Court decision of 6 February 2018, IX R 33/17, Federal Tax Gazette II p. 525) and the Federal Fiscal Court ruling on gold bullion securities (see Federal Fiscal Court decision of 16 June 2020, VIII 7/17, Federal Tax Gazette II 2021 p. 9) are to be applied with the necessary modifications.
- 86 The sale of such a bond may result in income from private sales transactions under section 22 no 2 in conjunction with section 23 (1) sentence 1 no 2 of the Income Tax Act. Reference is made to the related comments in paragraph 53 et seqq. For the investor, payments by the issuer during the term of the bonds constitute other income within the meaning of section 22 no 3 of the Income Tax Act. The allocated units of virtual currency or other tokens are valued as of the date and the time of receipt.
- 87 If, on the other hand, the bonds constitute a financial claim within the meaning of section 20 (1) no 7 of the Income Tax Act, income received during the holding period results in investment income (current investment income). A sale of the bonds falls within the scope of section 20 (2) sentence 1 no 7 of the Income Tax Act. In the case of income not received in euros, section 20 (3) and section 20 (4) sentence 1 second half-sentence, of the Income Tax Act apply.

### **11. Tokens as income from employment (Einkünfte aus nichtselbständiger Arbeit) under section 19 of the Income Tax Act**

- 88 If tokens are provided to an employee at a discount or free of charge, it must be examined in the particular case whether this constitutes a monetary benefit within the meaning of section 8 (1) of the Income Tax Act or a benefit in kind within the meaning of section 8 (2) sentence 1 of the Income Tax Act. Benefits in kind are valued at the usual final price, as reduced by usual discounts, at the place of delivery and as of the time of receipt (section 8 (2) sentence 1 of the Income Tax Act). Benefits in kind are not taken into account if they do not exceed a total of €50 (until 31 December 2021: €44) per calendar month (section 8 (2) sentence 11 of the Income Tax Act).
- 89 Tokens that are to be classified as benefits in kind accrue to the employee as a rule as of the time they are deposited in the wallet. The tokens are deemed to be received at the earliest at

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the point in time from which they are able to be traded, as the employee only has economic control over the tokens from that time. They are therefore not yet deemed to be received when an employer merely promises the transfer of tokens by contract. If before receiving the tokens an employee assigns to a third party the contractual claim for them to be deposited in the employee's wallet, income from employment is already deemed to be received at that time in the amount of the difference between the sale proceeds and the cost of acquiring the tokens.

### **12. Application scope**

90 The principles of this circular apply to all open cases.