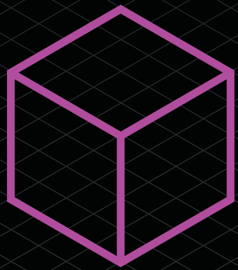
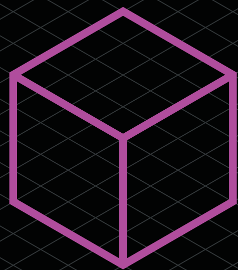
Part 2: Impacts on the Wider Landscape

Section 14
Blockchain and Tax





Section 14: Blockchain And Tax

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Introduction

Tax policy is critical to providing certainty and enhancing transparency in a virtual space. Investors, individuals and businesses all need clear and consistent tax rules that establish tax liabilities and treatments to improve certainty and minimise costs. From a tax authority perspective, an effective tax framework is critical to enable compliance and reporting on transactions and minimise tax evasion. Furthermore, the ability, and perhaps the inevitability, of this transformative technology to revolutionise the tax system itself should not be overlooked.

As the UK's fintech revenue and investment increase,[402] the UK government has repeatedly reiterated its claim to be a world leader in this sector. A government taskforce has been established to consider the introduction of a new 'Britcoin' in the form of a central bank digital currency ('CBDC'). Conversations are ongoing between the UK government, the Bank of England and UK businesses to assess the benefits and implications of such a 'Britcoin'.

In 2022, the UK government announced a package of measures to promote the UK as a global cryptoasset technology hub to help ensure that the UK financial services sector continues to grow and attract investment in this sector.[403] Part of this package of measures included exploring ways of enhancing the competitiveness of the UK tax system to encourage further development of the cryptoasset market.

The tax treatment of cryptoassets therefore continues to be under review. As the UK continues to make real-world developments to embed cryptoassets into the financial industry, it is essential that the tax system keeps up. Since 2020, HMRC has sought to consolidate and improve its previously piecemeal efforts to regulate this area. HMRC's new, more comprehensive, Cryptoassets Manual was launched on 30th March 2021, and has since been expanded upon in its continued effort to regulate and provide guidance in this space.[404]

Blockchain technology and its impact on tax frameworks is, of course, a global issue. Consequently, the UK's approach should continue to be developed and informed by the international landscape and, in particular, the EU's DAC 8 and OECD's reports and proposals on the tax treatments and policy issues.

Blockchain technology is often looked at from a purely commercial perspective, as a transformative way of exchanging value. However, the digital exchange of value throws up three key tax issues for legal tax practitioners, examined in this section:

1. Taxation of cryptoassets and blockchain

2. Impact of blockchain on tax authorities

3. Impact of blockchain on the in-house tax function

It is crucial that these complex issues are addressed in order to establish a functional tax system which overlays the technology.

The scale of the challenge is significant. As previous sections have discussed, blockchain technology is being harnessed to provide a peer-to-peer network for conducting transactions without a third-party intermediary, utilising Smart Legal Contracts ('SLCs') to embed business logic into a transaction through computer code which automates the logic, i.e., "if X, then Y". Blockchain also provides a neat data

402 Kalifa Review of UK fintech, 26 February 2021
403 https://www.gov.uk/government/news/government-sets-out-plan-to-make-uk-a-global-cryptoasset-technology-hub
404 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual.

store for recording those transactions and a consensus mechanism for validating transactions and limiting fraudulent or false transactions.

As such, the core attributes of blockchain suggest exciting possibilities for the tax world, with the potential to disrupt how transactions are taxed and reported. The following key characteristics of blockchain seem set to shake up long-established tax practices:

— **Decentralisation of control:** transactions amongst multiple parties, who can be identified and authenticated by cryptography;

— **Security:** the digital ledger is secure, immutable and resilient against disruption. Fraud is less likely (albeit false information can still be entered) and easier to spot;

— **Transparency:** traceable, validated transactions; and

— **Real Time Information:** any participant can keep a copy of the ledger and is able to read and access data.

1. Taxation of cryptoassets and blockchain

In the UK at present, there is no specific legislation, nor domestic tax case law on cryptoassets or the distributed ledger technology that underpins them. The UK tax treatment of any transaction involving blockchain and cryptoassets is therefore dependent on general taxing principles, supplemented by the HMRC guidance available and some limited European case law (which is focused on VAT).

Cryptoassets are, of course, just one application of blockchain. However, whilst not all applications of blockchain involve cryptoassets, the utilisation of blockchain in this particular context has been an area of primary focus for HMRC and indeed other tax authorities. Consequently, this section will focus primarily on the taxation of cryptoassets.

As ever, it is a question of substance over form, and consequently the labelling of any cryptoasset or transaction in or in relation to it, will not of itself determine the tax treatment. Rather, the tax treatment will be dependent on three primary factors:

i. The legal nature of the cryptoasset created. The categorisation of the cryptoasset for tax purposes will dictate its tax treatment – for example, whether it is deemed to be a tangible or intangible security or civil asset will fundamentally alter how it will be taxed.

ii. The substance of the transaction, i.e., whether at any given moment there is a taxable event in relation to the cryptoasset and, if so, the categorisation of its nature. For example, is it best analysed as income or capital? Is it taxed on conversion and/or on sale? How will volatility in the value of a cryptoasset be dealt with – will it be taxable without realisation? Will losses be deductible?

    It is worth noting that in many cases, the nature of blockchain means that each transaction stage is capable of being splintered into many more. For example, in the context of cryptocurrencies one could question exactly when code modification creates a new asset for tax purposes. Is this when there is a hard fork, as discussed in Section 13, i.e., when a change to a protocol invalidates earlier versions creating a 'new' asset with similar basic code but not equivalent characteristics to the old? Could or should the definition of 'new' asset be stretched to a soft fork, a gentler change which is more analogous to an upgrade? What would be an appropriate method to assess the fair value of a cryptoasset at any stage in the process?

iii. How the UK's existing tax framework overlays the above, taking into account the legal nature of the entities involved, whether individuals, corporate entities or other.

All of this is an area of live and lively debate. Tax professionals are on notice that HMRC is aware, and is seeking to deepen their understanding, of blockchain technology.

HMRC perspective on the legal nature of cryptoassets

The question of how to fairly tax a cryptoasset is multifaceted and, as indicated above, in the first instance it pivots on the definition of a cryptoasset.

HMRC does not consider a cryptoasset to be a form of money or currency. From a tax perspective, the term cryptoassets is defined by HMRC as "cryptographically secured digital representations of value or contractual rights that can be transferred, stored and traded electronically".[405] This definition differs subtly but significantly from the legal analysis of a cryptoasset endorsed by the UK Jurisdiction Taskforce ('UKJT') of the LawTech Delivery Panel, which found there to be no transfer as such but rather the cancellation of one asset and creation of another. The UKJT proposed in its Legal Statement[406] that the process of transfer in this context is not analogous to the delivery of a tangible object or assignment of a legal right. Whilst the Legal Statement does not have the force of law, it seems likely that it will carry weight in UK courts and tribunals. Any divergence of the legal and tax perspectives on this needs to be addressed and clarified as a matter of urgency.

On a global level, the tax treatment of cryptoassets has been further complicated to date by differing tax treatments in different jurisdictions. The consistent application of agreed principles is required in order to avoid discrepancies and double taxation of cryptoassets and blockchain more generally. This will require a greater degree of consensus on a national and international level. The OECD is leading the charge on this. In October 2020, it published a G20/OECD approved report on 'Taxing Virtual Currencies: An Overview of Tax Treatments and Emerging Tax Policy Issues'.[407] This provided a global overview of the tax treatments of virtual currencies in different jurisdictions honing-in on the associated policy issues. A more detailed follow up report is expected.

As also explored in Section 3, the UK Government's Cryptoasset Taskforce (comprising HM Treasury, The Financial Conduct Authority ('FCA') and the Bank of England) has recognised three types of cryptoasset since October 2018.[408] In HMRC's March 2021 Cryptoassets Manual,[409] this has been increased to four:

1. **Exchange Tokens:** Used as a method of payment and an increasingly popular form of investment (for example, Bitcoin). HMRC observes that, typically, there is no person, group or asset underpinning these; instead, the value exists based on its use as a means of exchange or investment. They do not provide any rights or access to goods or services.

2. **Utility Tokens:** Provide the holder with access to specific goods or services, typically on a blockchain platform. These may also be traded. HMRC observes that the person or persons issuing the tokens normally 'commit to accepting the tokens as payment for the particular goods or services in question'.

3. **Security Tokens:** Provide the holder with specific rights or interests in a business, such as debt due by the business or a profit share in the business.

4. **Stablecoin:** Tokens which are pegged to something that is considered to have a certain and stable value, such as a fiat currency or precious metal, in order to minimise volatility (for example, Tether).

It should be noted that not all tokens receive equal attention in the HMRC guidance. There is a continued focus on exchange tokens by HMRC which, whilst understandable given that they have received most investment, will nonetheless

405 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto10100
406 UKJT Legal Statement on cryptoassets and smart contracts, published November 2019 https://resources.lawtechuk.io/files/4.%20Cryptoasset%20and%20Smart%20Contract%20Statement.pdf
407 https://www.oecd.org/tax/tax-policy/taxing-virtual-currencies-an-overview-of-tax-treatments-and-emerging-tax-policy-issues.htm
408 Cryptoassets Taskforce: Final Report https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/752070/cryptoassets_taskforce_final_report_final_web.pdf
409 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto10100

inevitably cause issues for tax practitioners and HMRC compliance officers alike when grappling with the taxation of other tokens. If a token is not an exchange token, there remain areas where HMRC is still silent.

In terms of validation of transactions, HMRC does now recognise proof of stake networks, where the ability to create a new entry is determined by a user's wealth in the cryptoasset (or 'stake') rather than solely proof of work networks which rely on having the computer power to solve a puzzle before anyone else does.[410] This reflects the shift from energy intensive activities (for example Bitcoin mining) to networks perceived to be more environmentally friendly.

One helpful clarification from HMRC is what is ***not*** now considered a cryptoasset, that is, crypto derivatives. These will instead typically be considered to constitute derivative contracts and will therefore be taxed under the UK's existing rules (namely Part 7, Corporation Tax Act 2009) when entered into by a company.[411] The area of decentralised finance (DeFi) has been one of particular focus for HMRC in the last year, with update to HMRC's cryptoassets manual to clarify the tax position for parties lending and staking on DeFi transactions and to provide an indication of specific situations where UK tax may become due.[412] In particular, the update suggests that HMRC would not classify earned income (including where a DeFi loan has returns in the form of a cryptoasset or cryptocurrency) or the rate of return as interest.[413] HMRC's published position is that the following would probably be treated as disposals for chargeable gain purposes; (i) lending and borrowing of cryptoassets; (ii) utilising cryptoassets to either provide collateral for debt or as repayment of debt.[414]

The update to HMRC's guidance was followed by an HM Treasury consultation in July-August 2022 to consider the taxation of decentralised financing, in particular in relation to the tax treatment of cryptoasset loans and 'staking'.[415] It therefore seems likely that there will be further refinement to HMRC's position in the near future.

Substance of transaction

The tax treatment of all types of tokens is dependent on the nature and use of the token, not the definition of the token. HMRC therefore does not consider cryptoassets to be currency or money per se.[416] HMRC recognises a number of roles for cryptoassets:

- As a means of exchange, functioning as a decentralised tool to enable the buying and selling of goods and services, or to facilitate regulated payment services. In light of HMRC's view that cryptoassets are not currency or money,[417] a transaction where a cryptoasset is given or received by way of consideration is a transaction effected for non-monetary consideration (in most cases), i.e., a barter transaction.

- Used for direct investment, with firms and consumers gaining direct exposure by holding and trading cryptoassets, or indirect exposure by holding and trading financial instruments that reference cryptoassets.

- Supporting capital raising and/or the creation of decentralised networks through Initial Coin Offerings (ICOs).

410 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto10300
411 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto10150
412 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto60000
413 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto61110 and https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto61412
414 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto61630 and https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto61640
415 https://www.gov.uk/government/consultations/call-for-evidence-the-taxation-of-decentralised-finance-involving-the-lending-and-staking-of-cryptoassets
416 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto10100
417 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto10100

Tax System

Application of Existing Tax Framework

In the absence of specific legislation, the tax treatment of cryptoassets and other blockchain-based transactions will need to be worked through within the framework of the existing tax system, based upon HMRC's view of the legal nature of cryptoassets and substance of transactions. This should in theory lead to the correct (i) income and capital treatment; (ii) application of transfer taxes and VAT; and (iii) operation of withholding taxes and tax credits.

HMRC guidance to date has focused on the UK tax treatment of cryptoassets and transactions in or involving cryptoassets (focusing so far primarily on exchange tokens in each case) both for individuals and businesses. In broad terms, HMRC advocates that the nature of the cryptoassets and the purpose for which they are held will dictate the tax treatment.

On an individual level, HMRC takes the view that since individuals tend to hold cryptoassets for personal investment purposes in the majority of cases, they will usually be liable to pay capital gains tax when they ultimately dispose of their cryptoassets.

Income tax and national insurance contributions ('NICs') on cryptoassets will arise in certain circumstances where individuals receive the cryptoassets from:

i. their employer as a form of non-cash payment; and/or

ii. mining, transaction confirmation or airdrops.[418]

With this in mind, the general application of the existing tax framework is summarised below in high-level terms. This summary is based upon HMRC guidance which, for tax purposes, provides the cornerstone for 'best practice'.

Income Tax and Withholding Taxes

i. Employment taxes

Where cryptoassets are given by an employer to an employee, as non-cash remuneration, these will constitute 'money's worth' and are therefore generally subject to income tax and NICs.[419]

In order to ascertain whether or not an employer needs to operate Pay As You Earn ('PAYE'), it needs to be determined whether the cryptoassets in question are Readily Convertible Assets ('RCAs'). According to HMRC guidance, HMRC considers that:

> *"exchange tokens like Bitcoin can be exchanged on one or more token exchanges in order to obtain an amount of money. On that basis, it is HMRC's view that 'trading arrangements' exist [for the purposes of determining whether the tokens are Readily Convertible Assets] or are likely to come into existence at the point cryptoassets are received as employment income."* [420]

If not RCAs then:

> *"the employer should treat the payment [of the cryptoassets] as being a benefit in kind and pay and report any Class 1A National Insurance contributions arising to HMRC".*[421]

418 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto20050 and https://www.gov.uk/guidance/non-cash-pay-shares-commodities-you-provide-to-your-employees
419 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto21100
420 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto21100
421 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto42250

ii. Airdrops

An airdrop occurs where an individual is selected to receive an allocation of tokens or other cryptoassets automatically, for example, as part of a marketing or advertising campaign. In these circumstances, income tax may apply.[422] If an airdrop is received in exchange for the provision of services, then the cryptoassets are also likely to be liable to income tax as either miscellaneous income or receipts of an existing trade. However, this will not always be the case, for example, where cryptoassets have been received without the individual having provided anything in return or not as part of a trade or business involving cryptoassets. As such, the precise nature of the airdrop needs to be considered when assessing its tax status.

iii. Trading

HMRC guidance makes it clear that in most cases, cryptoassets will be held as investments. It considers that it is only in exceptional circumstances that it anticipates individuals will buy and sell cryptoassets with such frequency, organisation and sophistication to cause the activity to amount to a financial trade in itself.[423] To the extent that the individual is considered to be conducting a trade then income tax would apply to trading profits (or losses) in the usual way.[424]

Capital Gains Tax

As noted above, HMRC considers that cryptoassets are typically held as personal investments and, as such, will attract capital gains tax on disposal on any gains realised. While intangible assets, cryptoassets constitute 'chargeable assets' for capital gains tax purposes if they are both capable of being owned and have a value that can be realised.

Whilst further guidance would be welcome, HMRC has indicated that in the context of cryptoassets, a 'disposal' will include:[425]

- selling cryptoassets for money;
- exchanging cryptoassets for a different type of cryptoasset;
- using cryptoassets to pay for goods or services; and
- giving away cryptoassets to another person.

It should, however, be noted that HMRC states that 'disposal' is a broad concept and therefore this is a non-exhaustive list.

On disposal, any consideration will be reduced by the amount already subject to income tax charged on the value of tokens received (as HMRC guidance has confirmed that section 37 Taxation of Capital Gains Act 1992 will apply in a crypto context) plus any allowable expenses, including certain exchange fees.

In addition, HMRC guidance requires cryptoassets to be pooled under section 104 Taxation of Capital Gains Act 1992 when calculating a chargeable gain or an allowable loss for capital gains tax purposes on the basis that they fall within the sweeper provision in that section and qualify as "any other assets where they are of a nature to be dealt in without identifying the particular assets disposed of or acquired."[426] The application of these rules also applies in a corporate context.

Corporation Tax

As noted above, HMRC does not consider cryptoassets to be money or currency. As such, any corporation tax legislation relating exclusively to money or currency does not apply to cryptoassets.[427] This means that any corporation tax legislation which relates solely to money (for example, the foreign currency rules in Corporation Tax 2009) does not apply to exchange tokens or other types of cryptoasset.

422 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto21250
423 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto20050
424 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto20250
425 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto22100
426 s.104(3)(ii) TCGA 1992
427 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto41050

Typically, for the purposes of corporation tax, HMRC prescribes that:

> *"if the activity concerning the exchange token is not a trading activity and is not charged to Corporation Tax in another way (such as the non-trading loan relationship or intangible fixed asset rules) then the activity will be the disposal of a capital asset and any gain that arises from the disposal would typically be charged to Corporation Tax as a chargeable gain"*.[428]

As provided above for capital gains tax, exchange tokens in HMRC's eyes count as a "chargeable asset" for corporation tax if they are both capable of being owned and have a value that can be realised. It follows that if a company holds exchange tokens (or, presumably, other forms of cryptoasset) as an investment, they should be liable to pay corporation tax on any gains they realise when they dispose of it.

It is worth noting that, for corporation tax purposes, the "rules for intangible fixed assets[429] have priority over the chargeable gains rules".[430] As a result, companies that account for exchange tokens as "intangible assets" may be taxed under the UK's corporation tax rules for intangible fixed assets if the token is both an 'intangible asset' for accounting purposes and an "intangible fixed asset", i.e., created or acquired by a company for use on a continuing basis.

There are further specific exclusions for financial assets, non-commercial assets and assets that derive rights or value from certain excluded assets (such as tangible assets, rights in companies, trusts, partnerships).

As for other assets, if a business disposes of exchange tokens (and potentially other forms of cryptoasset) for less than their allowable costs, they will have a loss. Certain "allowable losses" can be set off against other income so as to reduce overall gain,[431] however, such losses must be reported to HMRC first. Also, in the same way as for other assets, businesses can also crystallise losses for exchange tokens (and potentially other forms of cryptoasset) that they still own if they become worthless or of "negligible value". When reporting the loss to HMRC, a negligible value claim can also be made at the same time.[432] This treats the exchange tokens/cryptoassets as being disposed of and re-acquired at the amount stated in the claim. As noted above for capital gains tax, exchange tokens are pooled. This means that any negligible value claim should be made in respect of the whole pool, as opposed to only the individual tokens.[433] Where a person owns a variety of types of token, such as Bitcoin, Ether and Litecoin, that individual will need to have three separate pools for each type of token.[434]

Transfer Taxes

The application of transfer taxes, such as stamp duty and stamp duty reserve tax, to cryptoassets themselves is assessed on a case-by-case basis, depending on the nature and characteristics of the cryptoasset in question.

There is some inconsistency between different HMRC guidance on the topic. However, HMRC's view in its latest policy paper is that exchange tokens and utility tokens are unlikely to meet the definition of "stock or marketable securities" or "chargeable securities" for the purposes of stamp duty or stamp duty reserve tax, although a security token may, depending on its precise characteristics and transfer, be subject to either of these transfer taxes.[435]

428 Ibid
429 Corporation Tax Act 2009, Part 8
430 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto41150
431 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto41300
432 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto41450
433 Ibid
434 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto22200
435 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto44100

This leaves the question of whether cryptoassets could themselves form the consideration for purchases of "stock or marketable securities" and/or "chargeable securities" for the purposes of transfer taxes.

By way of best practice in this context, HMRC provides that:

> *"If exchange tokens are given as consideration, this would count as 'money's worth' and so be chargeable for Stamp Duty Reserve Tax purposes. Tax will be due based on the pound sterling value of the exchange tokens at the relevant date."*[436]

This logic could potentially extend to all cryptoassets, depending on their specific terms.

The same is considered true if exchange tokens were given as consideration for a land transaction, in which instance they would be deemed to be 'money or money's worth' and therefore chargeable to stamp duty land tax.

The position in respect of stamp duty differs, however. HMRC guidance suggests that exchange tokens – and therefore by extension all cryptoassets – are not considered to meet the definition of 'money' in the context of stamp duty consideration. This is the logical conclusion to HMRC's position that cryptoassets are neither money nor currency.

VAT

HMRC guidance provides that:

> *"VAT is due in the normal way on any goods or services sold in exchange for cryptoasset exchange tokens. The value of the supply of goods or services on which VAT is due will be the pound sterling value of the exchange tokens at the point the transaction takes place."*[437]

VAT (as applied in the UK) is the only tax that has received any judicial consideration to date in its application to transactions in or involving cryptoassets. The results of case law in relation to the application of VAT to cryptoassets,[438] have been incorporated into HMRC guidance as follows:

1. *"Exchange tokens received by miners for their exchange token mining activities will generally be outside the scope of VAT on the basis that:*
   ii. the activity does not constitute an economic activity for VAT purposes because there is an insufficient link between any services provided and any consideration; and
   iii. there is no customer for the mining service.

2. *When exchange tokens are exchanged for goods and services, no VAT will be due on the supply of the token itself.*

3. *Charges (in whatever form) made over and above the value of the exchange tokens for arranging any transactions in exchange tokens that meet the conditions outlined in the VAT Finance Manual (VATFIN7200), will be exempt from VAT under Item 5, Schedule 9, Group 5 of the Value Added Tax Act 1994."*[439]

However, it should be noted that here 'best practice' has a temporary aspect to it since the treatments outlined above are provisional pending further developments, most notably in respect of the regulatory and EU VAT positions.

436 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto44150
437 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto45000
438 For example, CJEU case, Skatteverket v David Hedqvist C-264/14 (22 October 2015) and First National Bank of Chicago (C-172/96) (14 July 1998). https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto45000
439 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto45000

1. Bitcoin Exchanges

In 2014, HMRC decided that under Item 1, Group 5, Schedule 9 of the Value Added Tax Act 1994, the financial services supplied by Bitcoin Exchanges – exchanging Bitcoin for legal tender and vice versa – are exempt from VAT.[440]

This was confirmed in the Court of Justice of the EU (CJEU) in the Swedish case, *David Hedqvist (C-264/14)*.[441]

The VAT treatment of transactions in or involving cryptoassets that are not exchange tokens depends on the precise nature of the cryptoasset. It is generally anticipated that transactions in or involving security tokens may, depending on their precise characteristics, be treated in the same way as transactions in or involving shares or securities. A utility token, depending on its precise characteristics, may be more likely to be treated as a voucher for VAT purposes.

2. Impact of blockchain on tax authorities

The impact of blockchain on tax policy and tax evasion has been largely unexplored to date. Investments and transactions in blockchain generate value and represent a potentially important tax base that needs to be defined and recognised by countries, which will then need to decide the extent to which they will tax this base. The tax evasion implications of blockchain also form an important part of the overall regulatory framework.

Blockchain technology certainly has the potential to underpin a more streamlined, efficient and reliable tax system. A distributed ledger that allows anything of value to be traded securely, transparently and without the risk of tampering could be invaluable to tax authorities looking to fill the tax gap, i.e., the difference between the amount of tax that should, in theory, be paid and what is actually paid. However, there is also the risk that new alternative payment methods actually threaten tax transparency and pose a substantial risk of tax evasion.

For tax reporting and collection to work well for individuals and businesses, there should be a greater degree of uniformity internationally. The OECD is developing a standardised tax reporting and exchange framework, commonly referred to as the 'crypto-CRS' standard, or 'CARF' (the Crypto-Asset Reporting Framework) to increase transparency surrounding the (tax) treatment of crypto-assets. Following a public consultation on the topic in 2021-22, CARF was approved by the G20 in August 2022, and reviewed by the Finance Ministers and Central Bank Governors. Whilst this new standard has not yet been published, it is expected soon in the first half of 2023.

As a result of this work, the European Union is also looking to publish the 8th version of the Directive on Administrative Cooperation ('DAC 8') which will expand the rule for administrative cooperation and exchange of information into the areas of cryptoassets and virtual currencies.[442] The focus is on increased tax transparency and addressing tax evasion in respect of the new alternative means of payment and investment. The new rules will enter into force on 1 January 2026 and will be enforced by virtue of significant new penalties. In addition, the European Parliament, Council and Commission agreed on the Markets in crypto-assets (MiCA) Regulation in June 2022, which will take effect in 2024. MiCA will act as a mechanism to regulate the issuance, offer to the public and trading of crypto-assets and is expected to be adopted by various European jurisdictions as a unified licensing regime. Whilst changes in European statute will not, from a legal perspective, have direct effect in the UK, as a non-European jurisdiction, this is expected to influence UK policy changes and will of course impact UK operators active in European markets.

440 https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto45000
441 Skatteverket v David Hedqvist C-264/14 (22 October 2015)
442 https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12632-Tax-fraud-&-evasion-strengthen-ing-rules-on-administrative-cooperation-and-expanding-the-exchange-of-information_en

Blockchain technology certainly has the capability to deliver real-time, reliable information to a wide demographic, and the potential to create a bespoke system where both taxpayers and tax authorities have equal confidence in the veracity of the data collected. Before the introduction of digitalised tax systems, most administrations worked off taxpayers' returns, and information gained from third parties (such as employers) to review accuracy. With the pre-population of information in a digitalised world, the information flow is inverted. Consequently, in time, it could lead to the earlier collection of taxes and, additionally, ultimately assist tax authorities in exchanging information between jurisdictions.

Blockchain technology could also significantly contribute towards the efficient collection of revenue by tax authorities, i.e., maximum revenue collection for minimum cost. It is widely reported that digital collection methods are cheaper for tax authorities to operate than analogue methods. For example, an Australian government survey concluded that the same service could be provided for $1 digitally as against $16 by phone, $32 by post, or $42 in person.

Ultimately, this is likely to be a question of balance, i.e., of maximising revenues without stifling growth, of lowering the collection costs for tax authorities without placing an unbearable compliance cost on the taxpayer. Tax authorities when exploring the uses of blockchain technology in the compliance sphere must endeavour to get this balance right or they risk lowering medium or long-term tax revenues.

Furthermore, there are arguments that tax morale, the citizen's opinion regarding paying their taxes, is increased by digitalisation and a correlation exists between tax morale and tax compliance. Technologists argue that from the taxpayer's perspective, a digitalised tax system is seen as fairer, reducing scope for human error and subjectivity.

However, there are a number of practical as well as policy barriers to the full exploitation of blockchain in a tax compliance context that need to be addressed in order to enable a successful implementation. These include:

— **Digital exclusion:** this is the largest, most persistent issue and includes generational differences, varying beliefs and also temporary issues, such as natural disasters.

— **Cost and complexity**: the short-term investment costs necessary in order to adopt new technology may be prohibitive in some areas.

— **Security and privacy:** whilst the security of blockchain is often cited, any system is of course open to abuse and there will inevitably be questions as to corporate and personal privacy.

— **Legacy systems:** older systems (analogue and digital) contain vast amounts of vital data that should ideally be integrated and retained.

— **Futureproofing:** proofing against changes in technical capabilities and standards will be crucial in order to validate the initial investment to adopt such technology in the first place and for it to remain relevant.

— **Mission creep:** as the digital goals are broken down into steps, and developments in the sphere of cryptoassets continues, there is a risk that unplanned and unsustainable long-term commitments may be made.

— **Limitations of digitalisation:** in certain cases digitalisation will not be appropriate, nuances may be missed, and a digitised approach may not be capable of facilitating certain judgement calls.

— **Legislative basis:** it will be vital to establish a proper legal basis for the collection and use of data.

3. Impact of Blockchain on in-house tax function

This section would not be complete without briefly touching upon the potential impact of blockchain on in-house tax functions.

Compliance, in terms of reporting and disclosure, is generally one of the primary purposes of the in-house tax function. One of the greatest challenges for the modern tax function is the increasing demand for data from tax authorities across the globe, to be delivered at an ever-increasing speed. Blockchain could help organisations manage the scale and ever tightening reporting deadlines in respect of the data required.

Historically, tax functions have struggled to access the full spectrum of information they need to structure, plan and report for tax purposes across their business. As a result, it is arguable that tax functions have been consulted too late, or not at all, on issues and decisions that have tax implications. Blockchain has increased the ability of organisations to capture and collate enormous amounts of data, both internally and externally (in respect of customers and suppliers). Having the information shared in real-time with the tax function could propel it to a role of greater prominence, closer to the heart of the decision-making process at an organisation, rather than at the periphery.