



HM Revenue
& Customs

Consultation outcome

The taxation of decentralised finance (DeFi) involving the lending and staking of cryptoassets – Summary of responses

Updated 26 November 2025

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This publication is available at <https://www.gov.uk/government/consultations/the-taxation-of-decentralised-finance-involving-the-lending-and-staking-of-cryptoassets/outcome/the-taxation-of-decentralised-finance-defi-involving-the-lending-and-staking-of-cryptoassets-summary-of-responses>

1. Executive summary

Cryptoassets, and the technology underpinning them, have developed rapidly over recent years and are now used in a wider range of transactions. New forms of cryptoassets, and services that support their usage, continue to evolve at pace and are becoming more complex. The increase in the use of smart contracts to facilitate automatic transactions has increased the number of transactions and the complexity of the arrangements of individuals who use them.

The then government published a Call for Evidence in summer 2022 seeking data and views on the different potential options for the taxation of cryptoasset loans and liquidity pools. This was then followed by a consultation from 27 April 2023 to 22 June 2023 on proposals to align the tax treatment of certain cryptoasset transactions more closely with their economic substance.

32 formal written responses to the consultation were received from a wide range of stakeholders, including individuals, businesses, tax professionals and representative bodies. In addition, written responses to the consultation were supplemented by further engagement with stakeholders, through a series of roundtables and multilateral discussions.

Stakeholders unanimously supported HMRC looking at this issue. The key themes were that stakeholders wanted something that, compared to the current rules, would make compliance more straightforward and better reflect the economic reality of the transactions. They also noted the need for any

rules to be flexible enough to adapt to new arrangements that could emerge, and be wide enough to cover the main areas of the market. Some stakeholders raised concerns as to how HMRC was proposing to address the issue, and suggestions were made as to how the detailed design of the rules could be improved.

Following the consultation, HMRC has continued to have constructive, informal engagement with advisers and industry on how the design could be improved. As a result, HMRC has been working to develop a potential approach where certain disposals are treated as ‘no gain, no loss’ (NGNL), and which could be extended to include automated market makers. Further details on what this approach might look like are set out in Section 4 below. This informal engagement remains ongoing.

The government will continue to assess the merits of this potential approach, and the case for making legislative change to the rules governing the taxation of cryptoasset loans and liquidity pools.

The government wishes to thank all respondents and other interested parties for their constructive and continued engagement and valuable contributions. This document summarises the responses received to the consultation. It also provides details on the government’s responses to the views put forward.

2. Introduction

Following the publication of the guidance by HMRC in 2022, setting out its interpretation of how the law applies to cryptoasset loans and liquidity pool arrangements, some stakeholders raised concerns that there are situations where the tax treatments lead to disproportionate administrative burdens.

To explore the issue, the government ran a [Call for evidence](https://www.gov.uk/government/calls-for-evidence/call-for-evidence-the-taxation-of-decentralised-finance-involving-the-lending-and-staking-of-cryptoassets) (<https://www.gov.uk/government/calls-for-evidence/call-for-evidence-the-taxation-of-decentralised-finance-involving-the-lending-and-staking-of-cryptoassets>) from 5 July 2022 to 31 August 2022 to seek views on the taxation of cryptoasset loans and liquidity pools. In addition to gathering information about the sector, it also invited views on 3 potential options of reform that could be considered:

- option 1: to bring cryptoasset loans and liquidity pools within the repo and stock lending regimes by defining cryptoassets as securities for the purpose of those rules
- option 2: to create separate rules for cryptoasset loans and liquidity pools which follow the principles applicable to repos and stock lending

- option 3: to introduce new rules for cryptoasset loans and liquidity pools based on the NGNL principle, such that the disposal value is treated as matching the acquisition cost, which effectively defers the tax liability until the tokens are economically disposed of

Almost all respondents to the call for evidence advocated for a change of the tax rules applying to these transactions. However, most of them did not see Option 1 as an optimal solution. Options 2 and 3 were favoured by similar numbers of respondents, but the administrative burden associated with Option 3 was raised as a potential concern by some respondents.

The call for evidence was followed by a consultation (<https://www.gov.uk/government/consultations/the-taxation-of-decentralised-finance-involving-the-lending-and-staking-of-cryptoassets>) that ran from 27 April 2023 to 22 June 2023, seeking views on the potential for a set of new tax rules that could be designed based on Option 2. These proposed new rules would be intended to, where certain conditions are met, disregard for Capital Gains Tax (CGT) purposes, any disposal of beneficial ownership that may occur during cryptoasset loans or liquidity pool arrangements. Instead, a charge to CGT would arise when the cryptoassets are economically disposed of.

In addition, the consultation also sought views on the tax treatment of cryptoasset rewards from such arrangements, and cryptoasset models where a pair of tokens are transferred into the arrangement, such as with automated market makers.

The consultation also stated that any potential new rules for cryptoasset loans and liquidity pools would apply whether or not the arrangements take place through an intermediary. This means they would apply to centralised finance (CeFi) arrangements as well as decentralised finance (DeFi).

Since the consultation HMRC has continued to engage with stakeholders on the design of the rules.

Terminology

Please note that in this document, ‘cryptoassets’ and ‘tokens’ are used interchangeably.

The original call for evidence and consultation used the terms ‘DeFi’ and ‘lending and staking’, and these terms have been retained in the title and questions that used them. However, these terms have otherwise been replaced with references to ‘cryptoasset loans and liquidity pools’. This has

been done to distinguish the arrangements from other usages of the term 'staking'. In addition, this is considered more accurate as the rules would potentially apply to CeFi arrangements as well as decentralised ones.

References to 'DeFi reward' are to the financial return that users receive, which is sometimes referred to by industry as interest even though it is not normally treated as such for tax purposes.

3. Responses

The consultation sought views on the potential legislative solutions for cryptoasset loans and liquidity pools.

A list of respondents is available at Annex A. Some respondents limited their responses to addressing only certain questions from the consultation.

Overall comments

Respondents unanimously welcomed the consultation and were supportive of the consideration being given to whether it would be appropriate to change the taxation of cryptoasset loans and liquidity pool arrangements.

Most respondents believed that there was an opportunity to simplify compliance for cryptoasset loans and liquidity pools and bring greater tax certainty to the cryptoasset sector. They argued that this would, as a result, encourage voluntary compliance with tax reporting obligations, open up options for investors, attract business to the UK and foster innovation and growth in the industry.

Many respondents also acknowledged the significant challenges there would be in producing a comprehensive set of rules for this complex area, and commended the efforts and the collaborative approach HMRC has taken to better understand the market. The sector is complex and has features which are unprecedented, so any solution is likely to involve some complexities.

It was also emphasised by some respondents that the cryptoasset ecosystem is still evolving. It is therefore important to ensure that consideration is given to any potential proposals being sufficiently wide and forward looking, with a degree of flexibility maintained to address any emerging issues.

Respondents raised a range of issues on the design points that they felt should be considered if new rules were to be introduced and suggested ways to improve the proposals. These are discussed under the different headings below.

In addition, a few respondents advocated for wider reform of cryptoasset taxation, and the potential introduction of a bespoke regime for this class of asset.

Government response

As highlighted by the respondents, the cryptoasset market is still developing and continues to evolve. It is, therefore, important for any changes to the taxation of cryptoasset loan and liquidity pools that the government might consider to strike the right balance between being sufficiently inclusive to foster innovation and growth, and at the same time, protecting the integrity of the tax system and not creating any avoidance opportunities. To ensure fairness it is important that cryptoassets are not taxed more or less favourably than other classes of assets. The government understands that it is important that any potential rules would need to operate effectively in practical terms for the users of these arrangements.

Proposed scope of the potential rules

Question 1: Do you consider that the rules are sufficiently wide to cover most DeFi lending and staking models available in the market? If not, please provide details of the models that would not be covered.

Respondents overwhelmingly welcomed the aims of the potential rules and believed that they would be a step in the right direction. However, most respondents considered the specified conditions of them would be too narrow and that they would only address a small fraction of the market.

In particular, respondents highlighted that a large part of the cryptoasset loans and liquidity pool market centres around liquidity pools, such as that presented in Example 6 of the consultation document (an automated market maker). They considered it crucial for this type of transaction to be covered in the scope of any new rules. Respondents discussed this point further under Question 8 (see below).

In addition, many respondents expressed their views on other types of transactions in the DeFi ecosystem, and indicated that clarification is needed on whether these transactions would be intended to be within scope of the new rules. These include:

- wrapped tokens and multi-chain transactions – a wrapped token mirrors the value of another type of token on a different blockchain. This process gives users greater flexibility over how they can use their tokens by letting them undertake transactions on other blockchains. For example, a user can wrap a Bitcoin token to be able to use it on the Ethereum blockchain
- collateralisation using tokens – where tokens are provided as collateral in cryptoasset loans and liquidity pool arrangements
- yield farming – where liquidity pool tokens received in exchange for depositing into a liquidity pool are subsequently deposited into a separate protocol by a user to allow them to compound their yield
- yield aggregators – where tokens are shifted across different cryptoasset loans and liquidity pool protocols to optimise their returns through pre-programmed and automatically executed strategies
- tokenisation of real-world assets – where a traditional asset is represented by a token that can be held and traded on a blockchain
- tokens as part of an auction – where tokens are ‘locked-up’ as collateral while an auction is ongoing, and whether those tokens could be retrieved by the users depends on the outcome of the auction

In contrast, several respondents considered that the potential rules would be sufficiently wide and would cover the most common types of transaction. It was noted, however, that this is an evolving area with new models and platforms continuing to emerge.

A few respondents also highlighted the difference between staking as a validation mechanism (Proof-of-Stake) and staking in the form of providing liquidity. They sought clarification on whether Proof-of-Stake may be within scope of the new rules.

Government response

The government thanks respondents for flagging these scenarios and will take them into account when developing potential rules.

Unintended consequences and potential for abuse

Question 2: Do you consider that the rules would give rise to any unintended consequences or significantly restrict the development of the DeFi lending and staking market? If so, please provide details.

Question 3: Do you consider that the rules would be open to abuse?

Around a third of the respondents raised concerns over the unintended consequences that could arise from applying repo-like rules, and expressed their preference for an approach based on the NGNL principle which they believed would be better suited to achieving the policy intention.

The reasons provided by respondents for such a view included the following:

- administrative burden – they considered that a repo-like approach would not sufficiently reduce the level of uncertainty for taxpayers and could potentially increase the administrative burden for them, especially where taxpayers continuously add to and reduce their cryptoasset loans and liquidity pool positions, which they observed is often the case in practice. This is because under a repo-like approach, users of cryptoasset loans and liquidity pools would still need to track the liquidity token and/or rights in relation to such transactions. They considered this could be burdensome especially where the position continuously changes. It also creates potential uncertainty for the application of the pooling rules by having different types of tokens within the same pool. This would be a particular issue if there was an event, for example, where the value of the tokens diverged. Respondents considered that under a NGNL approach, it would not be necessary to individually track each transaction. As a result, this would give rise to a significant reduction in the administrative burden compared with a repo approach
- More-familiar principle – respondents indicated that typically the repo rules are only used by large corporates and only a relatively small number of professional advisers are familiar with them. Therefore, a repo-like approach would be likely to cause difficulties for advisers dealing with individuals as well as for unrepresented taxpayers. The NGNL concept, on the other hand, is well-established and a more widely understood approach for chargeable gains
- liquidity pool models – the respondents saw a NGNL approach as a more suitable approach for liquidity pool models, whereas the repo-like rules would be problematic when applied to such models and lead to disproportionate administrative burden and uncertainty in tax treatment

A few respondents indicated they believed an approach based on the repo rules could work well, although they did not comment specifically on the merits of the repo-like approach over a NGNL approach.

The vast majority of the respondents who answered Question 3 did not believe the potential rules would be open to abuse or give rise to any unique risk of abuse. However, several of them raised concerns around unintended non-compliance due to lack of awareness of the tax implications. They emphasised the importance of clear guidance and educational materials.

Government response

The government understands that transactions in the cryptoasset ecosystem can be of a scale seldom encountered in other financial services industries. Following careful consideration of the points raised through the consultation, the government agrees that the repo-like approach in this area can have some significant drawbacks in practice.

Further engagement with stakeholders has taken place exploring what a NGNL approach might look like. This approach is explained in more detail in Section 4 below.

Rights

Question 4: Are the rights of the lender to receive the lent or staked tokens of a legal nature? Please respond to this question with reference to any specific DeFi models you have an involvement in, highlighting any legal uncertainties.

Question 5: Other than (i) the sale of rights during staking or lending and (ii) the borrower not being able to return staked or lent tokens, are there any other situations in which the lender may cease to hold the right to receive back the lent/staked tokens?

There was a mixture of views in the responses to Question 4.

Over half of the respondents who answered this question commented that the legal nature of the lender's right would depend on the particular facts and would require a case-by-case analysis. In particular, where a platform is

involved, it would depend on the terms and conditions. It was pointed out that the terms and conditions applied to a particular arrangement may not always be clear to the participants and can also change over time. The analysis can become more complex and uncertain for decentralised transactions which rely on the operation of smart contracts.

On the other hand, about a quarter of the respondents considered the right of the lender would normally be of a legal nature. There might, however, be legal complications around the enforceability of such rights in some cases.

A few respondents thought there would generally be no legal right for the participants. There were also a few respondents who were uncertain of the position.

A few respondents noted that there was a risk the transactions could give rise to 'Marren v Ingles' rights relating to deferred consideration. They commented that it is far too complex and computationally difficult to apply the Marren v Ingles principles to the rewards and it is very unlikely that many users are aware of these principles. They considered it essential that the application of Marren v Ingles is switched off for crypto rewards.

In respect of Question 5, respondents provided some additional situations where they believed the lender may cease to have the right to receive the lent or pooled tokens back. The main examples cited were:

- bankruptcy and insolvency events
- forced liquidation of tokens held for the purpose of collateralisation
- hacking, theft, or fraud
- systemic failure of a blockchain or smart contract error
- sanctions associated with bad behaviours or blacklisting

Respondents also noted the difficulties in identifying all possibilities due to the developing nature of the area.

Government response

The government appreciates the further details provided and has taken them into consideration as it develops a possible approach.

The government will continue to consider the position in relation to Marren v Ingles rights.

Reward

Question 6: Do you favour a change in the rules to always treat the DeFi return as being a revenue nature? What are the pros and cons?

Whilst some welcomed the idea of simplifying the operation of, and having certainty in, the tax treatment, almost all of the respondents did not favour a direct change to simply treat all returns as revenue.

The majority of respondents said that simply treating all returns as revenue could lead to unintended consequences. In particular, they noted that such an approach:

- ignores the long-established principle of the distinction between capital and revenue, and therefore creates misalignment between the economic nature of the transaction and the tax treatment
- would result in the returns being taxed at a higher rate than capital gains, and could therefore lead to higher tax liabilities for individual taxpayers
- could encourage artificially structured arrangements and lead to distortions in the market
- would mean certain non-resident investors could potentially be brought into the scope of UK taxation even without carrying on a trade
- would mean UK charities could potentially be subject to higher tax liabilities due to the differences in exemptions available for charities' capital gains and miscellaneous income
- could lead to inconsistency across jurisdictions and encourage exploitation of arbitrage opportunities

About a fifth of respondents stated they were content for returns to be treated as revenue, as long as there were further changes to ease the position. For example:

- allowing an election for the return to be treated as capital where the true nature of the return is as such
- allowing some form of relief, such as allowing capital losses from lending and pooling activities to be set off against the revenue income

- changing the tax point for recognising such return income to be when the return is crystallised to fiat currency

A few further respondents indicated that whilst they do not like an all-revenue approach, if such a deeming provision must be introduced, then other changes such as the ones mentioned above should be implemented at the same time.

At the same time, about a third of the respondents commented that they prefer an all-capital treatment for the returns. Under such an approach, tokens received as a return would have a nil base cost, such that tax would only apply when those tokens are eventually disposed of. They believe this would mitigate the issues of (i) a potential dry tax charge created by less liquid tokens, (ii) any subsequent significant drop in token prices resulting in overall tax treatment not reflective of the net economic position of the transaction.

Government response

Following consideration of the comments received during the consultation the government is not currently exploring specific provisions to change the taxation of rewards from cryptoasset loans and liquidity pools. The government will continue to keep this position under review.

Single token arrangements

Question 7:

- a) Do you agree that the proposed treatment of DeFi transactions has been applied correctly in each of Examples 1 to 5?
- b) Do you foresee any practical difficulties applying the proposed treatment to situations similar to those in these examples?
- c) Please provide any further examples of DeFi transactions that you think would be helpful, including an explanation of how the proposed tax treatment would apply.
- d) Please provide examples of any DeFi transactions where you consider it would be problematic to apply the proposed new rules, with an explanation. If you think a different treatment would be easier to apply, while retaining broadly the same level and timing of tax charges, please set this out.

Almost all respondents agreed the proposed treatment has been applied correctly to Examples 1 to 5. However, many made the point that the examples have been overly simplified to demonstrate the basic principles and do not reflect the full scope of the market. For example, in practice, many cryptoasset loans and liquidity pool arrangements do not have fixed terms nor fixed returns. Lending and pooling positions are also frequently partially closed with multiple deposits and withdrawals.

In addition, many respondents who answered this question raised concerns over the unintended consequences of repo-like rules as detailed under Question 2 above. A few respondents raised concerns over potential practical difficulties in relying on existing computational tools for tax calculation and identifying the capital and revenue elements of the return.

Government response

The government has taken these comments on board and has taken these into consideration as it develops a possible approach. Further engagement with stakeholders has therefore taken place on proposals for a NGNL approach. This approach is explained in more detail in Section 4 below.

The government understands the concern that existing computational tools might not be compatible with potential approaches. HMRC is engaging with software providers to understand practical limitations of software.

Multi-token arrangements

Question 8:

- a) Do you think that the transaction in Example 6 should be within the scope of the proposed tax rules for DeFi? On what principles have you based your response?
- b) If you think that this transaction should be within the scope of the proposed DeFi rules, how should they treat the economic conversion between the 2 types of token while the tokens are staked as a pair, given that crypto to crypto transactions are taxable?
- c) Noting that this transaction does not meet all the conditions for the proposed rules, how could those rules be modified to provide a fair outcome for this transaction?

d) Do you foresee any difficulties for users who engage in these and similar transactions to establish the value of the DeFi return? If so, please provide examples where this may be an issue.

This question asked about Example 6 which concerned the treatment of an automated market maker where more than one type of token is deposited into a liquidity pool to facilitate the trading of tokens via algorithmic mechanisms.

The vast majority of respondents who addressed this topic were of the strong view that it is crucial to include this sort of multi-token liquidity pool model. In their view, depositing tokens into and redemptions from these arrangements do not economically represent a disposal of tokens that should result in any gains or losses. They also made the point that these arrangements represent a significant share of the cryptoasset loans and liquidity pool market and should not be excluded from the scope of any proposed rules.

Almost all respondents who set out their thinking on the tax treatment for this type of arrangement proposed a treatment based on the NGNL principle. They advocated treating depositing into and redemption from the liquidity pool as NGNL disposals. Some saw that there should typically be no CGT arising on redemption, while others accepted that any change in the number of tokens on redemption may need to be treated as a disposal and acquisition of tokens for CGT purpose.

Some respondents were concerned that there may be difficulties in practice to segregate the capital element and return element, especially where returns received are automatically rebased, making it potentially difficult for tax computations.

In addition, some respondents cautioned that the frequency and volume of rewards could cause difficulties in obtaining historic valuations and in preparing tax computations.

Government response

The government recognises that automated market makers represent a significant part of the market. The government is taking these models into consideration as it develops a possible approach.

General comments

Question 9: Do you have any general comments regarding the proposed tax framework for DeFi that you have not included in the previous questions?

Many respondents who answered this question urged consideration be given to applying the new rules retrospectively to earlier periods, and about half of them indicated that this should be by way of an election.

Some respondents sought clarity on definitions and highlighted the importance of avoiding ambiguous terminology and having clear definitions. For example, the term staking could be interpreted as liquidity staking but may also be interpreted as Proof of Stake. A few respondents suggested a coordinated approach with the regulatory definition should be explored where possible.

A few respondents sought clarification on how the new rules will interact with other tax rules and heads of taxes, such as with Corporation Tax and the rules around trading.

Government response

The government notes the desire of respondents for any rules to be able to be applied retrospectively to earlier periods and will continue to assess the position as further consideration is given to the proposed approach.

Staking as a mechanism of blockchain validation is not within scope of the consideration. Following further engagement with stakeholders, HMRC has updated the terminology being used. This area of work is now known as cryptoasset loans and liquidity pools to distinguish it from other arrangements referred to as staking, and to reflect the relevance to both centralised and decentralised finance.

The government recognises that corporates, as well as individuals, can enter into cryptoasset loans and liquidity pools. The government is developing a potential approach in relation to individuals, before assessing whether it could be extended to cover corporates.

For individuals whose cryptoasset activities constitute a trade, the trading rules will have priority over CGT rules. The government is not currently exploring specific provisions to change the taxation of cryptoasset loan and liquidity pool activities that constitute a trade. The government will continue to keep this position under review.

Impact of the proposed new rules

Question 10: What impact do you expect the proposals in this document, if implemented, to have on administrative burdens and costs for users of DeFi?

Question 11: Are there any other impacts, benefits or costs arising from the proposals in this document, if implemented?

Question 12: How common is direct lending of tokens between 2 parties compared to the use of staking?

There was a mixture of views towards the effectiveness of the proposed rules in reducing the administrative burden and costs for DeFi users.

The responses to Question 10 were roughly evenly split between:

- about a third indicated that they expect the proposed rules would reduce administrative burdens. They commented, for example, that they would expect a net reduction in administrative burden and an increase in certainty if the proposals were adopted in sensitively drafted legislation
- another third commented specifically that adopting repo-like rules would increase administrative burdens from tracking transactions and values even if the reporting burden of tax returns is reduced. There were also a number of comments that repo rules were not well understood by the general population, so could lead to individuals incurring additional costs for professional advice
- the remaining third of the respondents did not directly answer the question, but flagged that they expect taxpayers would continue to require professional advice and computational tools, which would incur some cost

Relatively fewer respondents answered Question 11. Some respondents commented that a large number of taxpayers may be involuntarily non-compliant due to lack of understanding of the complex rules. A new set of rules

that better aligns the tax treatment with economic substance of the transactions could encourage voluntary compliance.

There was no consensus amongst the respondents to Question 12. Respondents were evenly split between those who believed direct lending of tokens between 2 parties is quite common and those who believed it is rare.

Government response

As noted above under Question 2, the government has taken the comments about the impacts of a repo-like approach into account and is carrying out further engagement exploring a NGNL approach which respondents believed would be more effective in reducing administrative burdens.

The government recognises that in many situations, participants in cryptoasset loan and liquidity pool arrangements would need to use software to keep track of their transactions and compute their tax position. However, the government expects these individuals would already need to be using such software, and is engaging with software providers to understand practical limitations of software.

The government understands any potential new rules should aim to help increase voluntary tax compliance by participants of these arrangements.

Other comments

In addition to responding to the questions above, some respondents also expressed the desire for wider reform of the tax treatment for cryptoassets in general, such as considering a bespoke cryptoasset regime or exempting crypto-to-crypto transactions. Some also indicated the need for certainty in specific areas of cryptoasset taxation, such as situs, VAT treatment and trading transactions.

In addition, clear guidance is also seen as crucial in ensuring effective implementation of any new rules.

Government response

This response document relates to the consultation on the tax treatment of cryptoasset loans and liquidity pools.

The government acknowledges that there are wider questions around the need for certainty in relation to the taxation of cryptoassets. The government remains open to discussion on such points and will continue to monitor the

development of the cryptoasset sector. The government will continue to keep the taxation of cryptoassets under review.

4. The approach being considered

Since the consultation, HMRC has engaged with stakeholders to explore in detail what a NGNL approach would look like. This section sets out the potential approach, which covers 3 situations:

- single token arrangements
- cryptoasset borrowing arrangements
- automated market makers

Reactions during the engagement have been generally positive, and stakeholders have indicated that they consider the proposals would be an improvement on the status quo.

The main concern raised by some stakeholders is around the administrative burden. In all but the simplest of cases involving cryptoasset loans and liquidity pools, individuals would need to use software to keep track of their transactions and compute their tax position. However, it was generally accepted that affected individuals engaging in these arrangements would already need to be using such software.

Some have raised concerns that the proposal would not relieve individuals of the need to report gains if the total disposals for assets in a tax year exceeded £50,000, even if the total gain was below the CGT annual exempt amount.

The government is grateful for all the feedback received, and will continue to engage with stakeholders as it considers the case for legislative change in this area.

Qualifying cryptoassets

The approach being considered would define cryptoassets as: ‘a digital representation of value that relies on a cryptographically secured distributed ledger or a similar technology to validate and secure transactions’.

The approach would apply to certain qualifying cryptoassets, which would exclude:

- securities, as there are existing provisions dealing with these
- tokenised assets, which provides the holder with rights in respect of another asset (such as real-world assets)

A. Single token arrangements

Under the approach being considered, there would be specific rules dealing with single token arrangements.

The underlying premise would be that where there is not an economic disposal of cryptoassets that transaction would take place on a NGNL basis for tax purposes. Under current rules such transactions could give rise to chargeable gains or allowable losses.

The approach being considered would apply to arrangements where:

- invested cryptoassets are used under the arrangements
- an individual acquires an interest that comprises a right to become unconditionally entitled to a number of cryptoassets of the same type as the invested cryptoassets and a return
- the overall effect is economically equivalent to a lending transaction resulting in a return for the individual
- there is no significant risk that the individual will not be able to realise their tokens

Where the individual acquires an interest in single token arrangements for the disposal of the invested cryptoassets, that would be treated as being on a NGNL basis.

Likewise, where the individual disposed of an interest in a single token arrangement for the acquisition of the invested cryptoassets, that would also be treated as being on a NGNL basis.

Example

For example, consider the following series of events:

Step 1: An individual buys some tokens.

Step 2: The individual lends the tokens through a cryptoasset platform.

Step 3: The individual receives equivalent tokens back.

Step 4: The individual sells those tokens.

Step 1 is an acquisition for CGT purposes and is not affected by the rules being considered.

Under the approach being considered, steps 2 and 3 would each constitute a disposal/acquisition for CGT purposes, calculated on a NGNL basis. As a result, no chargeable gain or allowable loss arises on steps 2 and 3.

Step 4 is a disposal for CGT purposes. Under the approach being considered, this step would crystallise a gain or loss based on the difference between the disposal consideration received at step 4 and the acquisition cost at step 1. This would reflect the individual's overall economic gain or loss from the arrangements.

B. Cryptoasset borrowing arrangements

Where an individual borrows cryptoassets from a lender, the borrowing of cryptoassets and any provision of cryptoassets as collateral would be disregarded for the purposes of CGT.

Where the individual disposes of the borrowed tokens, tokens of the same type subsequently acquired for the purpose of repaying the loan would be treated as if they were the same tokens as those originally borrowed.

Example

An individual borrows 100,000 USDC and provides 1 Bitcoin as collateral. The individual immediately sells the USDC for fiat currency for £80,000. The individual pays £75,000 to acquire back 100,000 USDC to pay the loan.

Under the approach being considered, the individual would be treated as having a chargeable gain of £5,000. This is based on disposing of 100,000 USDC for £80,000 where they had a cost of £75,000.

C. Automated market making arrangements

Under the approach being considered, there would be separate rules dealing with multi-token arrangements that are operating as automated market makers. Existing rules can mean that AMM arrangements give rise to a significant number of taxable gains and losses when there has not been an economic disposal of assets by the user.

This would apply to arrangements where:

- they operate by way of a smart contract and include an automated protocol which sets the price for cryptoassets
- at least 2 types of invested cryptoassets are used under the arrangements
- a person acquires interests in the arrangement in respect of each type of cryptoasset, each comprising a right to become unconditionally entitled to a number of cryptoassets of that type being determined by the smart contract of the invested cryptoassets and a return

The approach being considered would have regard to the rights the individual has to each type of token.

When the individual transfers invested cryptoassets into the arrangement in exchange for rights in the arrangement, these tokens would be treated as being disposed of on a NGNL basis.

When the individual disposes of their rights in the arrangement, the rule would look to operate based on whether the number of tokens the user receives back is greater or fewer than the number that were contributed:

- where the individual receives the same number of a particular tokens back, it is treated as disposing of the right to the tokens on a NGNL basis
- where the individual receives more tokens back of a particular type, they are treated as disposing of their right to the tokens for consideration that will give them a gain equal to the market value of the additional tokens received
- where the user receives fewer tokens back of a particular type, they are treated as disposing of their right to the tokens for consideration equal to the tax base for the number of tokens they receive, and so will give rise to a loss equal to the tax base in respect of the tokens that they did not receive back

Example

An individual introduces 3 ETH (with base cost of £9,000) and 12,000 USDC (with a base cost of £8,000) into an AMM, for which they receive 36 liquidity tokens.

The initial position is as follows:

Liquidity tokens base cost = base cost of ETH + base cost of USDC = £17,000

Return cryptoassets base cost: ETH = £9,000 and USDC = £8,000

Reference number of cryptoassets: 3 ETH and 12,000 USDC

The individual subsequently uses 18 liquidity tokens to withdraw 1.2 ETH and 7,500 USDC. On that date, each USDC is worth £1.40.

It is necessary to determine if the individual received more or less tokens back compared to the reference number of cryptoassets. To determine this, we need to calculate:

Reference number of cryptoassets – tokens received

As the individual only uses 18 liquidity tokens out of 36, the reference number of cryptoassets is apportioned accordingly by 50%. The reference numbers for the stake disposed of are therefore 1.5 ETH and 6,000 USDC.

The individual receives 0.3 fewer ETH and 1,500 extra USDC. There is therefore a loss on ETH and a gain on USDC.

Loss on ETH:

The loss on ETH is calculated as the base cost of the ETH that were not received back.

The base cost for 50% of ETH is: $£9,000 \times 0.5 = £4,500$

The loss on ETH is therefore $£4,500 / 1.5$ (reference ETH) $\times 0.3$ (ETH not received back) = £900

The base cost that is added to the ETH pool is the base cost of the ETH received back.

This is calculated as either:

Total base cost for ETH received back: $£4,500 / 1.5 \times 1.2 = £3,600$, or

Total base cost less recognised loss: $£4,500 - £900 = £3,600$

Gain on USDC:

The gain on USDC is calculated as the market value of the additional 1,500 USDC.

Gain is $1,500 \times \text{£}1.40 = \text{£}2,100$

The base cost added to the USDC pool consists of 2 elements (i) USDC return cryptoassets base cost, and (ii) value of gain on USDC:

The base cost added to the pool is: $\text{£}4,000 + \text{£}2,100 = \text{£}6,100$

The net position is therefore a gain of $\text{£}1,200 (= \text{£}2,100 - \text{£}900)$.

5. Next steps

HMRC is continuing to engage with stakeholders to refine and consider the potential approach set out above. In particular, to ensure that it would cover the range of transactions that can take place under these arrangements and would be viable for individuals to comply with.

The government will continue to assess the merits of this potential approach, and the case for making legislative change to the rules governing the taxation of cryptoasset loans and liquidity pools.

Annex A: List of stakeholders who provided a formal written response

a16z

AAVE

AIMA

Andersen LLP

BADAS*L

BDO LLP

Binance

Bitcoin Policy UK

Blockpit

Chartered Institute of Taxation and Association of Taxation Technicians (joint response)

ConsenSys Software Inc.

Cryptax

Crypto UK

Deloitte LLP

Digital Currencies Governance Group

Digital Economy Initiative

Hashdex

ICAEW

International Association for Trusted Blockchain Applications

KPMG LLP

Moore Kingston Smith

Osborne Clarke LLP

Recap and Wright Vigar (joint response)

Simmons & Simmons LLP

Skadden LLP

Tax Committee of the Charity Law Association

Taylor Wessing LLP

UK Cryptoasset Business Council

UK Finance

Two individuals

One business that wished to remain anonymous



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