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22 June 2023

The taxation of decentralised finance involving the lending and staking of cryptoassets (the “Consultation Paper”)

Dear Sir or Madam,

CryptoUK (**CUK**) and its members welcome the opportunity to comment on the Consultation Paper regarding the various amendments proposed to the taxation of decentralised finance involving the lending and staking of cryptoassets in the United Kingdom (“**UK**”).

CryptoUK is a trade association representing 160+ members, comprising organisations operating in, and supporting, the UK crypto and digital asset sector.

In responding to the Consultation Paper, we set out the views of our members and others in the community. We seek to offer pragmatic relevant suggestions as to how we believe His Majesty’s Revenue and Customs (“**HMRC**”) is able to implement a new regime that achieves the intended outcomes.

We have received contributions to this response from a number of members and would like to thank them all. We would however like to acknowledge the significant contributors to this response:

- Laura Knight, Dion Seymour and the team at Andersens (CryptoUK members and co-chairs of the Tax Working Group)
- Dan Howitt and Ben Shephard at Recap (CryptoUK members and co-chairs of the Tax Working Group)
- Louise Lane and the team at Wright Vigar (CryptoUK members and Tax Working Group members)
- Alex Jones and the team at Cryptax (CryptoUK members and Tax Working Group members)
- Graeme Taylor and the team at B2C2 (CryptoUK members and Tax Working Group members)
- Suzanne Morsfield and the team at Lukka (CryptoUK members and Tax Working Group members)

We would firstly like to state that both CryptoUK and our members are encouraged to have the opportunity to proactively support the work of HMRC and whilst we acknowledge there are still many variables and scenarios to be considered, based on our review of the consultation, we see this as a positive and collaborative step in the right direction to establish a regime that supports the growth and forward thinking approach of the sector and those choosing to invest using this technology.

One factor we would like to note, in relation to this response paper, is the concern amongst many of our members that the examples given for illustration purposes in the consultation document are not always reflective scenarios of real world examples and tend to focus on closed out simplified positions - which is not what most users choose as an outcome.



We believe that the majority of transactional activity is not accurately represented in the examples presented. We have therefore attached an appendix to this response paper with some working examples which our members have compiled. These are based on a few actual scenarios being reflective of what they have been faced with for the transaction types that HMRC is looking to address. Throughout the response paper, we will reference the specific examples in the appendix that we think more accurately reflects the reality of the current market, along with outcomes and proposed recommendations.

We would like to take this opportunity to highlight that given the goal of the Government "to establish clear tax and regulatory treatment of cryptoassets to place the UK at the forefront of safe, sustainable, and rapid innovation in cryptoasset and blockchain technologies" we welcome the opportunities that considering the treatment of DeFi Lending and staking offers to provide greater clarity and fairness. We note that there is still further work that will be needed. We would welcome more clarity and further dialogue with HMRC on how to address outstanding issues and concerns for businesses.

In addition to the responses documented in this paper, we would also like to refer HMRC back to our earlier response to the Call For Evidence on The Taxation of Decentralised Finance Involving the Lending and Staking of Cryptoassets - submitted to HMRC on 31 August 2022. This document can be accessed [here](#).



EXECUTIVE SUMMARY

In summary the primary points we will be making in more detail in the response document are detailed below for quick reference.

- Our opinion is that Option 2 (“repo-like”) is not the correct approach. Option 3 (NGNL) is our recommended solution. This reduces complexity, reduces administrative burden and more accurately reflects the economic substance of the transactions.
- We believe HMRC should consider introducing the option for taxpayers to offset cryptoasset losses against cryptoasset miscellaneous income received in the same cryptoasset. The current and proposed rules result in significant financial hardship and even bankruptcy for taxpayers (see our response to question 6)
- We believe that rewards should be treated as capital in nature and therefore not chargeable to income tax. The capital rewards should be treated as nil value acquisitions (see our response to question 6)
- We believe *Marren v Ingles* should be disregarded in the calculation of capital rewards as this is not a practical solution in relation to cryptoassets. (more information can be found in our response to question 6)
- We believe there could be a number of serious unintended consequences of the proposed rules. (See our response to question 2 and related examples highlighted)
- We do not believe the proposed rules will simplify taxation for taxpayers and in fact we believe in their current form they would actually increase complexity.
- We propose that a no gain no loss treatment would be a better approach to take account of any generic DeFi lending and staking transactions, including Liquidity pools. We have set out a proposed framework in appendix 1D, which has been designed to capture the economic substance of DeFi lending and staking transactions universally. (see our response to question 4) We understand that this will need further detailed consideration and would welcome further dialogue with HMRC.
- We believe there is an extremely high risk of non-compliance in relation to the taxation of cryptoassets. There is still a large proportion of taxpayers who are unaware of their tax obligations. Those taxpayers that are trying to be compliant often use software solutions to produce a report that is then used to submit a tax return by a non-specialist. Without significant manual adjustment these tax reports are almost certainly incorrect. See response to Q11.

We have set out detailed responses for each question posed below, and referenced some specific examples provided in the appendix (where applicable) for cross reference. The examples set out in the appendix are not all formatted the same way due to time constraints but are there to demonstrate some real life examples and help support the points made in our response to the questions.

We have also provided some market statistics at appendix 1H.



Consultation Questions

- 1. Do you consider that the rules above 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.**

Whilst we believe that these rules cover simple lending and staking models with same asset in and same asset out, they are not drafted to accommodate the majority of cases where the return asset is different to the original asset used, albeit of similar value.

The wording at point D is drawn so that it seems to imply that the lender has right to the same type of token and quantity - but doesn't state that this has to be the case. Therefore we are unsure if this has been intentionally framed this way or whether there would be a tightening in the definition. We would seek further clarification on this point.

It is acknowledged that whilst this does help bring many straightforward situations outside of the CGT charge, (which is considered a positive); it does not cover an estimated 1.2m users (Appendix 8) in the UK that are participating in decentralised (on-chain) lending, staking and liquidity-based activities - where we know the same assets/ ratios are not returned.

Point D (the lender has the right to withdraw at least the same quantity of the same type of tokens that were originally lent or staked) is the primary concern. This scenario does not work in practice, as the scope of this does not cover the majority of liquidity pool models or return of wrapped assets. We also believe that this scenario would not lend itself to some simple activities and believe that 'repo-like' arrangements do not necessarily lend themselves well to this particular asset class.

Liquidity pools represent the majority of the market (the largest being Uniswap and Curve Finance with \$7.5bn TVL), and as such need to be addressed and provided for. Our strong recommendation is that a no gain, no loss treatment based approach is the most sensible and only practicable way to cater for liquidity pools. Furthermore, this approach could also be universally applied to all DeFi activity, rather than the proposed 'repo-like' approach suggested for the simple lending and staking arrangements. With our proposed no gain, no loss framework set out in appendix 1D; we have built in anti-avoidance measures to guard against abuse. Therefore there are situations, as outlined, where a CGT charge will be realised.

We feel that the prior comments and concerns provided in the call for evidence (see link in foreword to response) have not been incorporated in terms of the preferred no gain, no loss approach recommended in our previous response. We would like to underscore the significant shift in the market structure following the DeFi Lending and Staking Call for Evidence in June 2022. 2022 was a time marked by the downfall of several prominent cryptocurrency lending and staking companies, including BlockFi, Celsius, and Voyager, which have subsequently entered Chapter 11 bankruptcy proceedings. The repercussions of these events have led a considerable number of cryptocurrency users to pivot towards decentralised lending and staking protocols. These decentralised finance (DeFi) solutions offer advantages such as eliminating counterparty risk and providing access to globally pooled liquidity.

The impact of these changes is evident in the increased adoption of DeFi solutions among UK-based Ethereum users. Before these bankruptcy events, our estimates suggested that there were around 283,000 Ethereum DeFi users in the UK. As of now, this figure has skyrocketed to approximately 1.2 million (Appendix 1H). These statistics show the need for tax rules that can

accommodate decentralised services, which are often composed differently from those provided by centralised services.

One further comment is to set some clarity around the definitions and activity related to the terminology staking and lending. Staking is not necessarily a DeFi oriented activity (as it is a native feature to the underlying protocol of the token) and should not be confused with 'proof of stake'. Users staking their assets are locking them to the blockchain in order to verify transactions, which earns them rewards and secures the network. Lending is either conducted natively on the platform via a dApp or done via a third party platform. Of the two, lending protocols are the item deserving a closer regulatory examination; whereas staking arrangements should be left untouched.

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

We believe the repo-like proposed rules, based on a same asset in and same asset out approach, would not be fit for a majority of current use cases, or offer protection to future proof the industry. It is prohibitive and we are concerned that it fails to recognise the nuances of the asset class in its proposed form. The proposals set out are not reflective of the current market and we are concerned that the proposals are not practical as a future proofing solution as is,

HMRC examples are always demonstrating a closed out position (fixed income/ fixed returns) and would require the taxpayer to track positions. However, what we and our members are seeing is that it is very rarely the case and most DeFi lending and staking transactions are open ended, where taxpayers can continually add to and partially close positions. We believe the proposed approach in the consultation document does not reduce the administrative burden but in practice will create an additional burden. Each interaction with a DeFi position would require tracking in addition to the s.104 pool cost basis tracking, and interaction with matching rules, so when a position is closed or closed in part the correct determination of rewards and principal can be ascertained.

One example of this is a user A sending 10 ETH to a lending contract with a variable interest rate. Over the course of a few months user A sends another 10 ETH and 20 ETH into the same contract, taking the position to 40 ETH; while the position accrues 5 ETH in rewards. User A then withdraws 10 ETH from the position. In this case user A would have to work out what ratio of the 10 ETH is the return of principal and rewards. Or would this all be treated as a return of principal with the rewards only treated as received once all the principal has been withdrawn?

We think the proposed new rules will bring just as much uncertainty and complexity as there is at present, in determining if each DeFi activity engaged in is 'eligible' for the favourable CGT tax treatment. HMRC may slightly alleviate this with comprehensive guidance and examples; however we are unlikely to be able to access all the necessary information to determine the correct tax position.

Under the current regime, we need to determine whether or not there has been a change in beneficial ownership when entering the DeFi activity. This is a grey and uncertain area which is complex to do, given the lack of available information/ever-changing terms and conditions of the protocols and the lack of detailed guidance relating to the interaction between DeFi activity and beneficial ownership from HMRC. Under the proposed new rules, based on the 'Overall Principle' under section 3 Policy Approach of the consultation, we will need to determine if the economic interest is retained in the tokens staked or lent, over the duration of the transaction. The consultation indicates that the economic interest is retained where they have a legal right to receive the same quantity of the crypto token back at some point in the future and will benefit in full from changes in value of the token over the term of lending/staking. As terms and conditions are very hard to access and are ever-changing this is going to make the question of eligibility to disregard the transactions for CGT just as difficult as at present.

In contrast, we believe that our proposed deemed disposal with a no gain no loss framework at appendix 1D alleviates this burden and complexity. As there will always be a no gain, no loss disposal of the principal tokens when entering all DeFi arrangements, there is no need to try to work out whether or not there has been a disposal of beneficial ownership or the economic interest at the time of entry. At the time of exit from the DeFi arrangement, the amount and asset returned will be known, which will inform the tax treatment for the return of principal tokens upon exit. If the same assets and the same amount are returned, there would be no gain and no loss for the principal upon exit, so achieves the same tax outcome as the proposed rules, without the complexity and admin burden.

We have provided examples in appendix 1A and appendix 1C that consider part disposals and an example of additional deposits into a DeFi lending and staking activity which demonstrate the additional administrative burden that the proposed repo-like proposal could create for users/advisers and HMRC. We support HMRC's objectives in relation to this consultation but our members are concerned that the measures could lead to an unnecessary additional admin burden that is solved by using a no gain/no loss approach.

Based on this response, our recommendation would be that HMRC looks to adopt a NGNL approach (as set out in appendix 1D) and consider the review of 'Option 3' in their Call for Evidence to assist in achieving their objectives. The proposed approach needs to address the broader market, including coverage of Liquidity Pools and more complex DeFi scenarios (where assets returned differ from those entered into a position). We believe this will create the biggest impact and positive outcome and ensure the ability to future proof the growth of the sector and adoption of new technology, whilst managing the administrative burden for both the user and for HMRC.

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

In any circumstances, rules ‘could’ be open to abuse, but there are more concerns around the fact that many people interacting with these protocols are not even aware they are making taxable disposals.

The global nature of the market means that this is less likely as not necessarily to be driven for UK avoidance. However, the drawing up of clear definitions and boundaries will help alleviate any such abuse.

The fact that a majority of DeFi staking and lending transactions are taking place on-chain, in a permissionless environment means that these activities are not governed by a company where traditional terms of service would often set out the eligibility of what is a repo-like. In the decentralised world, we would ask for clarity on how the user can make a determination that sending one asset to a smart contract is a lending and staking activity?

We acknowledge there could be scenarios where unintended abuse occurs and aim to counter potential abuse in our proposed alternative no gain no loss framework set out in Appendix 1D.

Again, as with the response to question 2, we believe that more reflective scenarios of the current market need to be catered for if HMRC is looking to capture the bigger part of the market and help future proof the legislation and not just looking at the simplistic scenarios which represent only a small part of the current market and does not demonstrate the activity being undertaken.

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.

There was some confusion in our membership as to why this specific question was being posed within this consultation by HMRC. The consensus was that HMRC had been treating this as a legal right and questioning whether this should be an indication for the application of Marren v Ingles and any other case law related to the return of capital to be switched off.

It is far too complex and computationally difficult to apply the Marren v Ingles principles to the taxation of capital rewards and it is very unlikely that many users are aware of these principles, or know how to correctly apply them to capital crypto rewards. It is incredibly challenging to estimate the net present value of a future capital crypto reward at the time of entering the DeFi arrangement. Issues include uncertainty over the number of tokens that will be received as capital rewards and the price volatility meaning the standard net present value models are not appropriate. The estimated future capital reward subjected to CGT upon entry to the DeFi arrangement then needs to be tracked and deducted from the capital reward later received.

If rights are caught within s.22 TCGA 1992 then this part of the legislation would also be impacted by the repo- like proposal.

As indicated in our response to question 6, we strongly favour treating DeFi rewards as capital rather than income. However to simplify the operation of the tax position for capital rewards and reduce the admin burden on users and HMRC, it is essential that Marren v Ingles and other rules associated with the disposal of rights at s.22 TCGA 1992 are switched off for crypto rewards.

It is also noted that some platforms will have obvious Terms & Conditions at the point of onboarding, but many platforms will not have these in an obvious place for users (for example if the platform does not conduct KYC). Terms & Conditions therefore will be based on the individual's engagement with the platform. It can be very difficult to establish what is happening in a smart contract - some will have a legal right to a return and some won't.

Again we would reference back to our response submitted on the DeFi Call for Evidence we submitted in August 2022 (linked in foreword).

We have provided examples in appendix 1A and appendix 1B that demonstrate the issues with tracking rights under the current proposal, which again can be alleviated by taking a no gain/no loss approach.

5. Other than (1) the sale of rights during staking or lending and (2) 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?

We propose that following situations should also be taken into account:

- Forced liquidation for purpose of collateralisation
- Smart Contract risk and exploits
- Bankruptcy and Liquidation
- Potential blacklisting of wallet addresses (by the developer of the contract for example)
- If liquidity pools are considered not to be in scope, then liquidity issues need to be factored in here (*'impermanent loss' the price of a token that a user has deposited to a liquidity pool changes in the market, which causes that users deposited assets in the liquidity pool to become worth less than their present value in the market; which causes the users' profit from depositing the token in the liquidity pool is less than what the user would have earned through holding the asset rather than depositing it into the liquidity pool*)

There may be other cases but these were the main situations that members raised.

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

We do not support a proposal to treat all DeFi returns as being of a revenue nature. It further increases the mismatch between economic substance of the transaction and what would be reported for tax purposes, going against the objectives set out by HMRC in the consultation document.

We support HMRC's objectives of this consultation which state the aim to achieve a simplification of the burden for taxpayers, along with the fair reflection of the economic substance of transactions and removing dry tax charges. Moving to an income only (vs capital) approach would exacerbate the current issues in relation to treating the reward as income and would increase administrative burden on users and HMRC.



We are encouraged by the steps taken by HMRC to look at solutions to the DeFi lending and staking issues faced by taxpayers. As cryptoassets are a new and nuanced asset class; we hope HMRC understand that most DeFi lending and staking activity is against low liquidity assets and there is no primary market for these. There is no fair market valuation in the UK, and this needs to be factored in and consideration given to how this could be approached. This means that any attempt to apply a fair market valuation will be challenging and will always be subject to volatility.

We believe that treating all DeFi rewards as capital in nature helps HMRC achieve their objectives to reduce the administrative burden on users and themselves and better reflects the understood economic substance of the activities carried out by users and their ability to correctly report the tax. There seems to be a common misconception that most DeFi rewards are revenue (income) in nature. However it is likely that on close examination of the characteristics and properties of the rewards received, that many rewards arising from the DeFi market could be considered capital in nature. Therefore for simplicity and to avoid the taxpayer having to make a judgement call on whether rewards for each DeFi activity are capital or revenue, we favour treating all rewards as capital. On a practical level capital rewards also work very well with our proposed no gain no loss framework set out in appendix 1D; in achieving a much simpler and less admin burdensome outcome. As set out in our response to question 4, *Marren v Ingles* would need to be switched off as well, to reduce the admin burden.

This proposed framework could provide an all encompassing tax treatment of the principal tokens and rewards for the entire spectrum of DeFi lending and staking activities. For illustrative purposes, a user with the same assets and amounts in and out would be able to enter a DeFi position without a CGT charge, exit the position without a CGT charge, and the capital rewards would not be taxable until they are disposed of. In this instance there is no requirement to determine the composition of the tokens withdrawn between the principal and reward element, as the total tokens withdrawn are added to the relevant s104 pool with an acquisition cost passed over from the LP token or 'right to redeem' which excludes any cost allocation for the new reward tokens. The averaged out price per token in the s104 pool will reduce due to the extra tokens received and added.

In order to make the tax position as simple and burden free as possible for both the taxpayer and HMRC, it is strongly recommended that DeFi capital rewards are treated as nil cost acquisitions of the tokens at the time of receipt and subjected to CGT at the time of economic disposal (ie sold for fiat or crypto to crypto trade).

The most important reason why nil cost acquisitions of rewards are the simplest solution, is that there is no need to identify the element of reward (if any) included in any redeemed tokens from a DeFi arrangement. In particular where there are many instances of adding principal tokens and removing them, it is very difficult to track or even ascertain whether withdrawals are of the original principal tokens, a reward, or a mix of both. There is often not sufficient detail included in a transaction to ascertain this information. Furthermore, different smart contracts and providers use inconsistent terminology when describing the transactions, so it is not possible for crypto tax software to detect key words and segregate and classify the elements on an generic/automated basis.

Other strong arguments for treating the receipt of capital rewards as a nil cost acquisition are the associated valuation issues and pitfalls:

- HMRC are clear that they don't want to distort the market with tax policy, yet treating rewards as income which are taxable at the time of receipt does distort the market. It forces people to cash out to fiat approximately 1/3 of their reward tokens straight away, if the market permits, to meet the income tax bill. This not only causes price dips; but most often the taxpayer really wants to continue to hold the tokens or reinvest them in other DeFi arrangements. There is also an associated administration cost required by the taxpayer to cash out the reward tokens into fiat at the time of receipt in order to value the reward and ability to fairly pay the tax as there is no set off on any downward value of the token on redemption.
- There are low liquidity problems, due to rewards often being received in low quality assets, with no primary market and thin order books. This often prevents a taxpayer converting rewards to fiat (to save for their tax bill, leaving them with no option but to be exposed to a very high volatility risk if the tokens drop in value between receipt and their economic disposal.
- It is very difficult to obtain a reliable fair market value at the time the reward tokens are received. Available data is difficult to obtain, arbitrary, subjective, and subject to extreme volatility, especially around the time of a token launch. The price could easily half or double from one day to the next, which is not the case for any other asset class. The low liquidity problems also cause issues with the reliability of values.
- A further consideration is the determination of where the source of the revenue will be considered as arising from. Whilst we are aware of HMRC's view on the *lex situs* of cryptoassets (CRYPTO22600) there is no view as to where the source of income for cryptoassets arise. This will need to be answered as part of the income is to be considered to be revenue in nature. It should be borne in mind that this will also have wider implications on other matters such as offshore penalties.

One of the most significant issues facing taxpayers in the current market is that their crypto income is subject to income tax, based on the value of the tokens at the time of receipt; but any retained rewards have dropped significantly in value. Under the current rules, even though a disposal could provide a capital loss, this can't be offset against the income tax. If as we propose, all rewards are treated as a nil cost acquisition of the tokens, this alleviates the complexity and price volatility issues at the time of receipt. Instead they are subjected to CGT when economically disposed of, at which point the value of the tokens is clear.

As noted above, there are many practical difficulties in ascertaining the amount of accrued rewards before they are claimed and withdrawn into the taxpayer's wallet. If a capital reward with nil cost position is not viable we would recommend a change to the legislation on when a reward is treated as received, with the tax point for rewards to be when you come out of a position and the tokens are received in the wallet, rather than on an accrued, cumulative basis or compounded basis.

Although we do not support rewards being taxed as income, to the extent that the new rules leave rewards to be taxable as miscellaneous income, we would additionally propose that a loss provision is provided for, potentially via the miscellaneous income provisions at s.687-s.689 Income Tax (Trading and Other Income) Act 2005.

The income receipt is currently caught under the sweep up provisions and no losses are allowable. An example of loss provisions applying to other sources of 'other income' include s.152 ITA 2007 which provides for loss relief for losses on miscellaneous transactions but currently only for the items included in the list at s.1016 ITA 2007 (an example of this would be 'certificates of deposit'). This list captures miscellaneous income but excludes income caught under the sweep up provisions. If the list at s.1016 ITA 2007 or something similar included provision for miscellaneous income chargeable on cryptoassets income, this could allow for a set off of losses against miscellaneous income under s.152 ITA 2007 or alternatively including a new provision that provides something similar to the loss relief available against other income. This would avoid the current unfairness in the rules that are provided to other such situations and would help better reflect the net economic position the taxpayer can often find themselves in.

We have provided examples to illustrate this. These can be referenced in appendix 1B at the end of this document.

7. **Application of the proposed rules on specific DeFi examples**

a. **Do you agree that the proposed treatment of DeFi transactions has been applied correctly in each of Examples 1 to 5?**

The proposed treatment of DeFi transactions looks to have been applied correctly in the examples 1-5 but the examples do not reflect the activity in the DeFi market.

We are concerned that this is being benchmarked against the wrong types of activity that is undertaken by users: The examples are "closed" examples with fixed returns, fixed terms and have one deposit and one redemption in the examples but these are not representative of the DeFi activity undertaking in lending and staking where most are not guaranteed fixed return, do not have a fixed period and users carry out multiple in/out transactions over a period of time.

Our LIDO examples at appendix 1A and 1B demonstrate that the examples 1-5 are not reflective of a real life transactions with our examples using a 1:1, liquid staking protocol where a number of issues arise if the proposals as set out in the consultation document were to be applied (we have raised the issues in our response to question 2.)

b. **Do you foresee any practical difficulties applying the proposed treatment to situations similar to those in these examples?**

This can't be simplified for multiple assets in/ multiple assets out.

Examples 1-3 - as currently set out raise no initial concerns - however, as we have stated throughout this response, these examples are not a true reflection of what is happening in the market

Example 4 - Is likely to cause practical difficulties; firstly in identifying the accrued return and then secondly applying differing tax treatment to the 'sale of rights' (as CGT) and the accrued return (as misc income). In the case of decentralised/onchain lending and staking there is unlikely to be information in the transactional data which indicates for the crypto tax software/taxpayer or accountant the amount of accrued return included.

Example 5 - Again, this is likely to cause wider practical tracking difficulties. There is no current HMRC guidance on the tax treatment of NFTs however taxpayers are required to report and pay any tax over in relation to the disposals of the NFT' and/or the underlying assets. NFT's are generally in their nature non-fungible and are not subject to s.104 pooling or matching rules where they are non fungible.

We have provided examples to illustrate this. These can be referenced in appendices 1A, 1B and 1C at the end of this document.

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

We have provided examples of transactions with Lido, Aave, GMX and others at appendices 1A, 1B, 1C, 1E, 1F and 1G and included the application of how the proposed tax treatment would apply and raised our concerns and advocate for a no gain/no loss position to be considered.

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.

Again, we would refer back here to the primary issue being the treatment of liquidity pools and the issues we have raised can be demonstrated in our response to the above questions. We have raised points where we see the proposed rules would be problematic in our e application in examples such as appendix 1A and 1B. The preferred approach would be the application of the no gain, no loss approach as previously stated in earlier responses and as advocated for as at appendix 1D.

We have provided further examples in the appendix to illustrate our concerns in n appendices 1E and 1F at the end of this document.

8. **Transfer of a pair of tokens to a platform.**

- 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?**

We wholly agree that it is essential the proposed tax rules for DeFi provide a clear tax position for liquidity pool activity or in fact any DeFi lending and staking position that is composed of multiple assets. As stated in earlier responses in this paper, liquidity pools represent a significant share of DeFi activity in the UK.

The fact that the return can be for different amounts or proportions should not be a limitation for the scope of this consultation and we should be actively looking for a legislative approach that recognises the use cases of DeFi. We believe this is essential for the UK to ensure we gain a competitive position specifically when benchmarked against other jurisdictions such as the US.

We also feel there is a need for clarity on the tax treatment of liquidity pool tokens that are taken and used elsewhere (eg. swapped, used as collateral, stablecoin to crypto transactions) and the usage of yield aggregator platforms.

We have provided an example to illustrate the yield aggregator platform issues at appendix 1G at the end of this document.

- 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?**

The proposed framework set out in appendix 1D which is built on the foundation of no gain, no loss, is the most appropriate route as it can be used universally against any DeFi lending and staking activity and has provisions to guard against tax avoidance in the case of effective “crypto-to-crypto” trades.

- 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?**

Please see the response to question 8b above

- 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.**

As noted in our response to question 6, a DeFi return is often a single transaction that bundles in the principal returned with any rewards/yield. The primary issue here is how this is segregated to determine the value of the reward itself. This presents a practical problem of being able to integrate the transaction to differentiate return/ rewards for tax



returns causing the question to arise of how to manage the valuations of the return when a position is partially closed.

Additionally, there are protocols which enable users to receive rewards in the form of liquidity pool tokens (*LP tokens are distributed to users who “provide liquidity” to DeFi liquidity pools by depositing the bespoke tokens needed to fund those pools. In return, these users are given “LP Tokens”, whose value is based on the valuation of the deposited tokens at the time of deposit, and then receives a new value at the time of withdrawal that is equal to the value of the tokens at the time of withdrawal).*

These tokens could be difficult to value in the event that a user does not redeem the underlying assets immediately. The LP tokens “value” on receipt would depend on the exact redemption ratio of the LP tokens into its underlying assets at that moment in time. Both the amounts and prices are constantly changing and historical snapshots are not yet readily available which makes this an incredibly difficult task in practice.

Other issues that compound the difficulty faced by taxpayers to correctly establish the value include the frequency and volume of tokens awarded. The current treatment as income, as discussed above, requires a tax on receipt basis to apply. Practically this is not only hugely time intensive to work out but often the practicalities of obtaining this value are just not achievable and a simpler basis is found to be used to estimate on.

The low liquidity level of some of these tokens means that an accurate, or even near to accurate, value is near to impossible to obtain. You often cannot use the “market price” displayed as a mechanism to report the price for tax purposes as the price impact from the taxpayer selling the assets would significantly impact the value realised. The taxpayer may have to sell tranches of tokens across multiple different marketplaces to achieve a sale and all with varying values. Again, this supports the argument for capital treatment as the realised value of the rewards will be known at the point of disposal.

Valuations is a concern for taxpayers investing in cryptoassets in the wider scheme. The issues in relation to DeFi returns and valuations can be mitigated with a capital reward position and a nil cost basis as discussed in more detail in our response to Question 6.

We have provided examples to illustrate this. These can be referenced in appendices 1A and 1B at the end of this document.

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

In addition to earlier responses, we would like to include the following points for consideration

1. There is a general feeling that HMRC are looking at progressing with a repo-like approach within this consultation, the consensus of our members is that a NGNL approach would be a more appropriate solution to consider and supports and achieves the objectives set out by HMRC in the consultation document.
2. Multichain fungibility - the practice of using cryptoassets across different blockchains - requires clarification from HMRC. Specifically, it is crucial to determine how cryptoassets that are native to one blockchain should be treated when utilised on a different blockchain.

For instance, consider a user sending 1 ETH (Ethereum) from their Ethereum wallet to a Binance Smart Chain wallet through a "bridge" such as the Rainbow Bridge or Chainlink CCIP. Here, the 1 ETH is native to the Ethereum blockchain. Does the act of sending the 1 ETH to the Binance Smart Chain constitute a disposal of ETH at market value and the acquisition of a new ETH version on the Binance chain?

Further, it is unclear whether the ETH held on Ethereum and Binance Smart Chain should be combined into the same pool under section 104. These areas require clarification to ensure compliance and ease of use for crypto investors.

3. **Wrapped assets** - the process of wrapping involves converting a native blockchain asset into a tokenised representation of that asset, which is crucial for these assets to be utilised within smart contracts on their respective blockchain. This bidirectional process is unrestricted, operates at a fixed ratio, and provides no additional economic substance for the holder. Importantly, the smart contracts used for wrapping are pure, immutable, and immune to external interference.

Given the economic equivalency of the original and wrapped assets, conversions between these two forms should be exempt from tax. This is particularly relevant given the industry's treatment of such assets as equivalent, with platforms often displaying wrapped assets under the same designation as their native counterparts. For instance, Ethereum (ETH) and its wrapped version (WETH) are often treated as interchangeable, with WETH frequently used in smart contracts to optimise gas fees when closing positions.

Given these circumstances, it's crucial for HMRC to provide clear guidance on whether wrapped assets are treated as separate assets for tax purposes.

There is no clarity on how wrapped assets would be treated in a DeFi scenario

4. **Rebase tokens** - a recent development in the cryptocurrency market, feature variable supplies that adjust based on internal mechanisms such as artificial inflation or deflation (rebasing), transaction fee distributions, and other unique mechanisms. These adjustments, while integral to the token's function, may take time to be apparent to the end user and present new challenges for tax interpretation.

We propose that supply adjustments affecting all token holders in a proportional manner should not invoke a tax consequence, as no individual holder is gaining an economic benefit over others. This situation is akin to traditional stock splits or merges, where the quantity of shares changes, but the overall value remains the same for each shareholder. In such cases, the section 104 pool amounts would be adjusted accordingly, similar to how these events are treated in traditional securities markets.

However, supply adjustments that are not evenly distributed among holders may be more similar to airdrops and should be taxed as such. In these situations, individual holders may realise an economic benefit from the supply adjustment, and thus a tax consequence is appropriate. (see the Lido examples in the Appendices)

The challenge lies in accurately tracking these supply adjustments for tax purposes. Some rebase tokens dynamically adjust their supply with every interaction, potentially amounting to thousands of adjustments each day. To address this, we propose adopting

a pragmatic approach. Supply changes could be tracked at regular intervals, such as daily, or updated immediately before any event that could impact the user's tax situation, such as a disposal of assets. This would provide a realistic and manageable method for calculating the tax implications of holding rebase tokens.

In light of these complexities, it is crucial for HMRC to provide clear guidelines on the tax treatment of rebase tokens. This will ensure that the tax treatment aligns with the practical realities of how these assets operate and are used within the industry.

5. There is a perceived risk of uncertainty as to why DeFi is tax free but “traditional” crypto-to-crypto is not. This can be mitigated via careful framing of this issue by HMRC and a proactive messaging approach
6. Although it seems clear from the proposals that any new DeFi legislation will not be retrospective, some discretionary relief/concessions need to be given to cover DeFi activity undertaken by taxpayers up to the implementation date of the new legislation, to give taxpayers clarity on their tax position for earlier years.
7. We believe that the framework needs to go further and look at taxation of ‘income’ if the capital route and loss relief is not taken forward. As an approach HMRC may need to consider a timing change for pick up of income (for example on redemption or partial redemption of a position to align with the aim for matching economic substance and admin burden objective) together with consideration of the sourcing issue.
8. NFT’s (lending) and particularly in gaming - Clarity on how this would fall within the proposed rules would be helpful. Further clarification around point D “has the right to withdraw at least the same quantity of the same type of tokens that were originally lent or staked” would also be welcomed. Does a similar value NFT from the same project but not necessarily the same NFT fall under this? NFT’s can also potentially be “levelled up” or improved. Clarity on how this would impact the position if falling within the proposed rules would also be welcomed.
Additionally, although potentially outside the scope, we have concerns surrounding the difficulties of tracking and accounting for blockchain gaming transactions, especially in game rewards received in the form of cryptoassets. These transactions can number into the tens of thousands very easily. We believe this is a potentially serious area of concern that should be highlighted specifically in relation to young adults and children playing these games and potentially incurring life changing taxable events without being aware of the fact and often with no real world value being realised.
9. “Looping” of loans - This can occur on platforms such as AAVE. The taxpayer can leverage their position and yield by looping loans. This may be achieved by depositing liquid staking derivatives (LSD’s) such as stETH, wstETH, rETH, cbETH etc. and borrowing ETH against this. The taxpayer can then convert the ETH to an LSD token, deposit this and borrow yet more ETH.. This process/cycle can be “looped” multiple times. Platforms such as Sommelier.finance do this automatically when an asset is deposited and the taxpayer is not actually manually undertaking the transactions. Clarity would be welcome on whether this would fit within any proposed changes.

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

We feel that these proposals would increase the administrative burden as set out in our response above.

It was noted that the administrative burden can also be largely dependent on how crypto tax software can handle the rules/ transactions and how many manual adjustments may be required to address any shortfall in the ability of the software to manage this.

There is likely to, however, be a significant element of position tracking required whichever route is taken.

Finally we ask HMRC to consider the tax years prior to any implementation of new rules and whether anything can be done for taxpayers to opt in to the new rules but on a prior year basis. As more users will be coming into the tax net with the reduced annual exemption from 6 April 2023, the prior year application of the rules will have a wider effect across more taxpayers.

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

We see the main benefit will be the promotion of a healthy tax system for cryptoassets. Many participants are involuntarily non-compliant (most DeFi users don't realise that staking and lending can currently lead to a taxable event) and the challenge for calculating the correct tax at the correct time is significant which this proposal will look to address .

Our members have consistently highlighted the necessity for many users to rely on crypto tax software or tools to compute their tax positions. These digital solutions must be capable of correctly implementing UK tax rules. However, the landscape for such tax software is complex, innovative, and constantly evolving. HMRC may wish to explore how it can assist UK users of these tools by potentially introducing a system of approvals or accreditations for certain providers who ensure the correct application of UK tax rules.

Currently, there are no established benchmarks to guide users in discerning what an effective solution looks like. Not all existing tools are equally suitable or even fit for their intended purpose. Furthermore, with the exception of Recap, most crypto tax calculators are not specifically tailored for the UK market but are globally focussed, which is evident from the lack of implementation of UK rules across some providers. This renders them unfit for purpose in many instances.

HMRC could have a significant role in determining how these tools can be improved to better serve UK taxpayers. By taking into account the specificities of UK tax rules, and actively supporting the development and accreditation of compliant software, HMRC can ensure a more efficient and user-friendly tax experience for cryptoasset holders.



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

We feel this is not a common scenario in the retail sector. Up until a year ago, it was rather typical to 'lend' to companies like Celsius, BlockFi, or Voyager. However, after the collapse of such firms, we've witnessed a significant shift towards decentralisation in the market, reducing the occurrence of this practice. Some of our members have suggested that such transactions might still take place at the institutional level, but regulatory hurdles have largely kept this from becoming widespread in the UK.

Our members report that most of their clients engage in staking. Instances of users lending tokens between two parties are exceedingly rare in comparison. This observation aligns with current market trends, which show the total value of staked assets greatly surpassing the total value of loaned assets.

APPENDIX 1- SUPPORTING EXAMPLES FOR RESPONSES ANNOTATED IN DOCUMENT

APPENDIX 1A:

Using suggested model for repo-like approach:

A DeFi user accesses Lido, a liquid staking protocol with over \$13B total value locked (TVL) to invest 5 ETH on 10 April 2024 (base cost of those 5 ETH was £3,000). The user believes that over the long term the value of ETH will increase. Lido allows investors to stake their assets and receive proof-of-stake (PoS) returns without having to stake at least 32 ETH or operate as a validator.

The 5 ETH (valued at £7,500 at time of entry to the protocol) are added to the Lido DAO staking pool. The protocol mints 5 stETH representing the user's value that has been added to the pool. The user can trade that 5 stETH outside of Lido or may just hold the tokens until such time that they wish to un-stake their position. If the position is unstaked, the stETH tokens are burnt with ETH returned on a 1:1 basis.

Daily rewards of stETH are provided for being party to the PoS transactions and, as with the underlying assets, are pegged 1:1 to the underlying staked assets.

The rewards are added to the stETH balance, so after a month the user's tokens that represent their initial investment are still 5 stETH, however the balance of the stETH is actually, say, 5.05 ETH. There is no mechanism where this is split and the balance of stETH continues to increase.

The DAO has its own governance tokens (LDO) and the smart contract includes the following actions:

- Deposits and withdrawals
- Minting and burning stETH tokens
- Funds to node operators to maintain uniform distribution and to be validated by the validators
- Applying fees to staking rewards, paid to node operators in stETH

On 10 October 2024, the user wants to release 50% of their funds from Lido. The stETH balance now sits at 5.25 stETH and ETH is valued at £2,000.

Our question [uncertainty] is that as the investor has unstaked 2.625 stETH how is this treated for tax purposes?

Tax position under proposed repo-like analysis:

- 5 ETH sent to Lido and 5 stETH received to represent value of 5 ETH. The stETH tokens represent an acquisition of right to the underlying 5 ETH, with a base cost of £3,000. This transaction into Lido, where ETH is valued at £7,500, is ignored for tax purposes and the 5 ETH remain in the s.104 ETH pool. The acquisition of the stETH tokens needs to be recorded, and tracked, as a right to represent the initial 5 ETH.
- Daily rewards increase the stETH balance. These need to be valued on receipt and taxed as income/capital with the corresponding value being the cost of acquisition. These stETH tokens form part of s104 pool for stETH tokens as they are treated as an acquisition of tokens.

- The original 2.5 ETH is a return of funds. The right representing the 5 ETH needs to be tracked and reflect the return of funds. This leaves the user with a right to 2.5 ETH with a cost basis of £1,500 which also needs to be tracked.
- There is no change to the ETH s.104 pool, as it was not ever treated as having been disposed of under the repo-like rules.
- The 0.125 stETH rewards that are also redeemed are not subject to the repo-like rules as these are not the same asset being returned. The redemption of 0.125 stETH into 0.125ETH would be a taxable disposal with gross proceeds of £250 (£2,000 stETH/ETH Value on redemption) less the acquisition value under s.42 TCGA 1992 and also subject to bed and breakfasting rules at s.105 and s.106 TCGA 1992.

Consequences or issues arising on application of the proposed tax rules:

- Unlike in the existing repo rules for companies (those that are involved in providing collateral and obligation to buy back and fix interest rates) these DeFi examples are providing users with new tokens, stETH, to both represent a right in the value staked in the liquidity pool to be able to redeem 1:1 and to provide rewards in the form of a stETH token.
- The proposed repo-like rules create a significant admin burden to track the rights themselves. We do have concerns about any possible interaction of s.22(1)(a) TCGA 1992 and s.22(1)(d) TCGA 1992 under the repo proposal which is not in point if a NG/NL position is taken instead.
- The admin burden is increased whether the rights are reflected in token form or by smart contract and their values need to be tracked under the repo proposal vs interaction with s.104 cost basis tracking under NG/NL
- Arguably, the stETH tokens would need to be separately identified in their own separate s.104 pools; or the right value needs to be split from the representing token, so that the tokens can be pooled, due to their different rights attached. This does not appear to have been considered within the consultation examples.
- It may be able to work in the example above on a straight redemption back to ETH but this causes an unnecessary increased burden to the user and additional legislation to reflect the part disposal issues.
- If you take the example a step further, if the user instead or in addition to, decided to use some of the stETH on another platform, then this should then be treated as a part disposal out of Lido. The part disposal rules at s.42 TCGA 1992 require you to complete a $A/A+B$ calculation but would this be on the right or original ETH s.104 pool and will s.42 need to be updated to reflect this?
- At what point is a new s.104 pool created upon acquisition of tokens? Currently the first tokens acquired in LIDO do not represent a disposal of the 5 ETH as these remain in the ETH s.104 pool. The user acquires a right in the form of stETH tokens with the stETH tokens reflecting the rights remaining in the ETH s.104 pool. Therefore we can't have a new s.104 pool until they have been disposed of from the ETH s.104 pool. This will not happen following the repo example as there is no disposal upon entering the position. There will already be a stETH s.104 pool for the purpose of the rewards, which may need to interact with the disposal above. This is technically very complex for what is actually a fairly straightforward and common example.
- The general question of 'at what point on a partial disposal do you actually 'realise' the rewards' is also a general concern. So, if partially cashing out, this would need to be legislated as to whether taking capital first, capital plus reward to date pro-rated or rewards first given switching off disposal position for the 5 ETH, so what is coming back into ETH first?

Preferred No Gain/No Loss scenario

- The 5 ETH are treated for DeFi tax purposes as disposed at either no gain or no loss (NG/NL) using something similar to the provision wording for spouses and civil partners at s.58 TCGA 1992 for example: “the asset was acquired for a consideration of such amount as would secure that on a disposal neither a gain nor a loss would accrue to the one making the disposal”
- The 5 ETH are disposed of at NG/NL on the position going into Lido with the s.104 ETH pool reflecting that there has been a disposal of 5 ETH with the cost basis having to currently be calculated under the existing rules, therefore no additional administrative burden.
- There is an acquisition of 5 stETH and the cost basis of those 5 ETH is carried into the s104 pool for stETH.
- If the user redeems the stETH to ETH, this would be at NG/NL.
- If the user redeems the stETH into another asset or for fiat, as in the repo rules, this would be a taxable disposal and subject to part disposal calculations where applicable using the s.104 pool cost basis.
- The NG/NL answer in these scenarios provides for the simpler cost basis tracking, as is currently having to be done without additional admin burden and still removes the dry tax charge.



APPENDIX 1B:

Lido - 1:1

An investor sends 6 ETH to Lido, a liquid staking protocol, to get exposure to proof-of-stake returns without operating as a proof-of-stake validator themselves. The investor then earns daily returns as rebase adjustments and redeems the position in one transaction.

Legs:

1. The 6 ETH is sent to Lido, and 6 stETH, known as a liquid staking derivative, is returned in the same transaction.
2. Every day the Lido contract rebases stETH as a mechanism of distributing rewards. For example, the user has 6.000067621 stETH after the first day.
3. Redeem 6.000067621 stETH for 6.000067621 ETH.

Repo tax scenario:

1. 6 ETH is sent to Lido - there is no disposal of the 6 ETH and the 6 stETH returned is ignored for tax purposes, per the Repo rules.
2. The 6 ETH after day one is now effectively worth 6.000067621 ETH, as 0.000067621 stETH has been added to the user's stETH balance. This excess should be segregated as income or an additional capital reward. Regardless of whether an income or capital reward, the 0.000067621 stETH and associated acquisition cost is added to the stETH s104 pool.
3. The user redeems 6.000067621 stETH for 6.000067621 ETH in one transaction. We subtract 6 ETH from 6.000067621 ETH to recognise 0.000067621 ETH in rewards as income/capital, and the remaining 6 ETH is just a return of funds, so ignored for tax purposes.

Capital vs Revenue Return Questions:

1. Every day the Lido contract rebases stETH, and the user is required to value the return at market value. This can be challenging as stETH is a decentralised derivative asset that doesn't typically trade with any volume of a centralised exchange; therefore, a valuation can only typically be determined by liquidity pools and routing valuations through several paths. For example, stETH can be valued by assessing stETH/ETH liquidity pools and then valuing ETH/GBP. As there is no primary market for stETH, the valuation in GBP is always going to be volatile, and thus, if the returns are income in nature, the taxpayer is required to draw down up to 40% of their return in GBP every time it is received to hedge their position.
2. Lido pays returns daily, but other contracts can pay returns per block. On Ethereum, the block time is about ~10 seconds. If the return is an income return at the point of each rebase, there will be ~8,640 income transactions daily, all requiring independent valuations. Guidance is required on how to deal with high-volume returns.

Repo Key Questions:

1. In repo-like tax scenario point 1, the user sends 6 ETH to a DeFi contract and receives 6 stETH as a right to their position. Is it not confusing that 6 stETH is included in the user's portfolio, but should be ignored for tax under the proposed rules?
2. Point 2, the stETH asset the user holds has the potential to rebase every single block, so there could be rewards distributed every ~10 seconds (ETH block time). Are HMRC expecting rewards accrued through rebase assets to be accounted for on every block, or is it more feasible for rewards to be ascertained on redemption of the stETH, as per point 3? Or rewards rolled up daily etc.?
3. The user has two ways to redeem their 6.000067621 stETH positions: they could claim against the Lido protocol or sell their claim to the market and redeem it for ETH. In some instances, the market could be more advantageous for the user but the economic reality in each case is the same. Are the proposed repo rules open enough to recognise this?

No gain, No loss scenario:

1. There is a "no gain, no loss" disposal of the 6 ETH for Capital Gains Tax (CGT) purposes. Although there is a disposal of 6 ETH for CGT purposes and the tokens are removed from the ETH s.104 pool, there are no tax consequences at the time of sending the tokens to Lido. The deemed disposal proceeds equal the acquisition cost of the 6 ETH.
2. The acquisition cost of the 6 ETH in the "no gain, no loss" disposal is passed on to the 6 stETH. The 6 stETH is added to the stETH s.104 pool with this cost.
3. The 6 ETH after day one is now effectively worth 6.000067621 ETH as 0.000067621 stETH has been added to the user's stETH balance. This excess should be segregated as income or an additional capital reward.
4. The user redeems their position from Lido and swaps 6.000067621 stETH for 6.000067621 ETH. This is a disposal of the 6 stETH for CGT purposes at "no gain, no loss" and the 6 stETH and proportional acquisition costs are removed from the s104 pool (subject to the matching rules). The excess of 0.000067621 stETH should be segregated and taxed separately as an income or capital reward, as appropriate. Regardless of whether an income or capital reward, the 0.000067621 stETH and associated acquisition cost is added to the stETH s.104 pool.
5. The acquisition cost of the 6 stETH (which was also the acquisition cost of original 6 ETH), is passed back to the 6 ETH returned to the taxpayer.
6. The net tax position is that there are no dry CGT charges on the principal when entering or exiting Lido and the tokens will re-acquire their original acquisition cost upon exit. The rewards need to be segregated and taxed separately as income or capital as appropriate.



APPENDIX 1C:

Aave

Aave is a decentralised lending platform that enables users to lend and borrow crypto assets. To lend crypto on Aave, users can connect a digital wallet to the platform and search through a list of assets that support deposits. Deposits offer a variable annual percentage yield (APY) that is paid out in the same asset in which it is deposited.

Example

User A deposits 1 ETH with a base cost of £1000 to the Aave Platform and receives back 1 aETH. This is treated as NG/NL and thus the 1 aETH token is treated as having a base cost of £1000.

User A then deposits 2 ETH with a base cost of £2400 to the Aave platform and receives back an additional 2 aETH. This is also treated as NG/NL

User A now holds 3 aETH with a base cost of £3400

After 12 months, User A returns 1 aETH to the platform and receives back 1 ETH. The base cost for the 1 aETH is $£3400 / 3 = £1,133.33$. The value of ETH has risen to £1500 per 1 ETH.

This could be treated as a taxable event and subject to CGT.

1 aETH disposed of for 1 ETH at £1500

$£1500 - £1133.33 = £366.67$ Gain

Alternatively, if NG/NL is applied on exiting the position then the base cost of £1133.33 would be carried over to the 1 ETH.

Rewards

Aave Rewards are received every 15 seconds with the Aave platform. They have value on receipt and seeing as they are currently taxed as income rewards under HMRC guidance, practically these are very difficult to track, value and account for tax. To treat these rewards as capital with NIL cost, would eliminate these issues and would significantly reduce the admin burden on both users and HMRC.

APPENDIX 1D: PROPOSED NGNL FRAMEWORK FOR ALL DEFI ACTIVITY

Overview

We believe that a no gain no loss (NGNL) based approach is the only way to cater for the complexities of the tax position when entering and exiting liquidity pools. Furthermore, we believe this same NGNL framework can apply universally to all DeFi arrangements and is better suited than the proposed repo-like framework.

The overview of our proposed NGNL based framework is set out below; with the detailed analysis following this overview.

Principal tokens entering and leaving DeFi arrangements:

- Steps 1 & 2 - NGNL disposal of principal tokens upon entry into all DeFi arrangements and acquisition cost passed onto LP token/rights.
- Tax treatment on exit depends on type and amount of tokens removed:
 - Step 3a - Same type and quantity in and out – NGNL disposal of LP/token on exit and acquisition cost passed on to tokens returned.
 - Step 3b - Same type, but in different quantities to entry – NGNL disposal of LP token/right on exit up to the principal tokens added. Surplus/shortfall in principal tokens is subjected to CGT upon exit (to counter avoiding CGT on an effective crypto to crypto trade).
 - Step 3c - Different types of asset out – CGT charge on exit (to counter avoiding CGT on an effective crypto to crypto trade).

Reward tokens received from DeFi arrangements (See responses to Q6 for details):

- Treat all rewards as capital
- Switch off Marren v Ingles
- Nil cost acquisitions, so subject to CGT when economically dispose (ie cash for fiat or crypto to crypto exchange)



Proposed NGNL framework for Principal tokens

Step 1: Initial Contribution

- As an investor, you begin by contributing assets to a liquidity pool. For example, you contribute 10 WETH (when it is worth £12,000) and 10,000 USDC (when it is worth £8,000), making a total initial contribution of £20,000 of tokens. The acquisition cost of the 10 WETH was £8,000 and the 10,000 USDC had a £7,000 acquisition cost.
- This transaction is treated as a "no gain, no loss" disposal event for Capital Gains Tax (CGT) purposes. Although there is a disposal of 10 WETH and 10,000 USDC for CGT purposes, there are no tax consequences at the time of placing the assets into the liquidity pool.
- Importantly, this "no gain, no loss" treatment ensures that the aggregated cost basis of the contributed assets (£15,000) is passed on to the LP tokens or rights received.

Step 2: Issuance of LP Tokens or a Legal Right

- Following the contribution, you receive Liquidity Provider (LP) tokens or a legal 'right to receive tokens/value back from the pool'. These tokens or rights represent your stake in the liquidity pool, indicating your share of the pool's total assets and any potential earnings.
- The receipt of these LP tokens or rights is an acquisition of an asset for CGT purposes. As the LP tokens or rights were received in consideration for contributing assets to the pool (WETH and USDC), their acquisition cost equals the value of the assets contributed (£15,000).

Step 3a: Removal of Liquidity Position - same assets, same quantity

- When you remove your position from the liquidity pool, the tax position should reflect the economic substance of the LP activity. The tokens were simply locked away for a period and the same tokens are returned, therefore it makes sense that there is no CGT charge on the tokens upon entry or exit.
- Where you receive the same tokens back that you originally contributed, in the same quantities of each token contributed, there should be no CGT charge upon the originally contributed tokens being returned from the pool.
- The disposal of the LP token or right, which is exchanged to obtain the originally contributed tokens, should be treated as for "no gain, no loss". Therefore the acquisition cost of the LP token or right (which is also the acquisition cost of the tokens that were originally contributed), is passed onto the tokens returned to the taxpayer. In this example, the cost of £15,000 is passed on to the tokens returned.
- The net tax position is that there are no dry tax charges when entering or exiting the pool, and the tokens returned from the pool leave with the same acquisition cost as when they were contributed to the pool.

Step 3b: Removal of Liquidity Position - same assets, different quantity

- When you remove your stake from the liquidity pool, the tax position should reflect the economic substance of the LP activity. There is a partial return of the principal tokens which were simply locked away for a period, and the same tokens are returned. However, there is also a shift in value between the tokens added.
- Every time tokens are reclaimed from the liquidity pool, there is a disposal event of all, or part of, the LP tokens or 'right'; in exchange for the same types of tokens that were added to the pool, albeit in differing quantities to entry. At the point of each claim on (exit from) the pool, the surplus and shortfall against the principal tokens added will be calculated. The same quantity and type of tokens added can be removed at NGNL. This can be achieved using a part disposal formula to subject the same amount of tokens in and out at no gain and no loss, with the excess value subject to CGT.
- A CGT charge on the excess value upon exit from the pool (rather than no gain no loss treatment) is to guard against tax avoidance. Without this, it would be possible to benefit from an effective 'crypto to crypto trade' without a CGT tax charge.
- The net tax position is that there are no dry CGT charges when entering the pool. There are also no CGT charges for the same quantity of the same tokens being returned from the pool. However, to the extent the asset amounts have changed, this will result in a CGT charge on the excess value.

Step 3c: Removal of Liquidity Position - different assets

- When you remove your position from the liquidity pool, the tax position should reflect the economic substance of the LP activity. Since different types of tokens to those initially contributed are returned, there has been an economic disposal of the tokens contributed to the pool for different tokens.
- There should be no CGT charge on the tokens upon entry into the pool, because at that point there is likely to be uncertainty as to which types of tokens will be returned from the pool. When different tokens are returned from the pool, there should be a CGT charge at the time of exiting the pool.
- A CGT charge on exit from the pool (rather than No Gain No Loss treatment) is to guard against tax avoidance. Without this, it would be possible to benefit from a 'crypto to crypto trade' without a CGT tax charge.
- The disposal of the LP token or right, which is exchanged to remove tokens from the pool, should be treated as a disposal at market value for CGT purposes. The disposal proceeds for the LP token or right should be the aggregated market value of the tokens being returned from the pool.
- Let's say 1 BTC is returned from the pool, at a time when it is worth £20,000. Therefore the LP token or right is treated as having disposal proceeds of £20,000, and the £15,000 acquisition cost of the LP token or right is deducted to give a capital gain of £5,000.



- Effectively, the unrealised gain on the tokens contributed to the pool (i.e. the difference between the value of the tokens at the time they were contributed and their acquisition cost) is charged to CGT upon exit from the pool with different tokens to those contributed.
- The market value at the time the tokens are returned from the pool becomes the acquisition cost for each token returned, since this amount was treated as the disposal proceeds of the LP token or right exchanged for the tokens returned.
- In this example the acquisition cost of the 1 BTC returned is £20,000.
- The net tax position is that there is a capital gain of £5,000 upon exit from the pool. This represents the unrealised gain on the tokens contributed to the pool (ie the difference between the value of the tokens at the time they were contributed and their acquisition cost).

SUMMARY

In summary, under the proposed framework, the tax implications of contributing assets to a liquidity pool, receiving LP tokens or rights and removing the stake aim to capture the economic substance of the LP activity. The “no gain, no loss” treatment preserves the cost basis of the initial assets and avoids a dry CGT charge, ensuring a fair and equitable approach to tax calculations. CGT only arises where the composition or quantity of tokens entering the arrangement is different upon exit.

Furthermore, we contend that this proposed tax framework for liquidity pools is a significantly better fit for the taxation of all DeFi activity, than the current proposed repo-like framework. It is flexible enough to cater for the majority of current DeFi activity and future variations that have not yet been introduced to the DeFi market.



APPENDIX 1E:

GLP

GMX is the utility and governance token. This token can be staked in order to receive rewards.

GLP is the liquidity provider token. This token can also be staked in order to receive rewards.

100% of the revenue generated via the platform is divided amongst holders of the GMX and GLP token who stake their tokens. 70% goes to GLP holders and 30% to GMX holders.

Example 1

User C supplies 2 ETH with a base cost of £2000 to the GLP pool. He receives 1 GLP token back. This is treated as no gain no loss so the base cost is transferred to the 1 GLP token at £2000.

Upon exiting the pool 12 months later, User C returns 1 GLP and receives back 2 ETH at a market value of £3000 (£1500 per ETH).

In the event of this being a CGT disposal it would mean a CGT gain of $£3000 - £2000 = £1000$.

In the event of this being treated as nil gain nil loss, the base cost would be transferred across to the newly reacquired ETH.

2 ETH = £2000

Example 2

User D supplies 2 ETH with a base cost of £2000 to the GLP pool. He receives 1 GLP token back. This is treated as no gain no loss so the base cost is transferred to the 1 GLP token at £2000.

Upon exiting the pool 12 months later, User C returns 1 GLP and receives back 0.1 BTC at a market value of £2500.

In the event of this being a CGT disposal it would mean a CGT gain of $£2500 - £2000 = £500$.

Due to a different asset received back and the fact that crypto to crypto transactions are taxable, we do not think no gain no loss could apply in this scenario.

Rewards

Minted GLP is automatically staked and starts receiving rewards immediately. Rewards received are Escrowed GMX and ETH / AVAX depending on the network. These are claimed manually.



APPENDIX 1F:

LP Example

User B deposits 1 ETH and 2000 DAI to Uniswap v2 liquidity pool and receives back 1 LP token. The base cost for the 1 ETH is £1000 and the base cost for 2000 DAI is £1400. This transaction is treated as no gain no loss so the base cost is transferred to the 1 LP token, bringing its total base cost to £2400.

Upon exiting the pool 12 months later, User B sends 1 LP token and receives 0.5 ETH and 4000 DAI. 1 ETH is now worth £6000 so the 0.5 ETH received has a market value of £3000. The 4000 DAI is also worth £3000.

In the event of this being a CGT disposal it would mean a CGT gain of £6000 - £2400 = £3600.

In the event of this being treated as no gain no loss and as set out in appendix 1D the no gain no loss would apply to:

0.5 ETH = £500

2000DAI = £1400

The remaining 0.5 ETH that had been swapped for 2000 DAI is treated as a disposal.

Proceeds: £3,000, less cost £500 = £2,500 gain

The remaining 2000 DAI now has a carry forward base cost of £1500.

Rewards

Rewards are generated by fees being deposited to the liquidity reserves when users trade using the pool. Due to the fees being automatically sent to the liquidity reserves pool on every transaction, it becomes impossible for us to track the rewards for each LP position.

Rewards accrued whilst holding the LP token were essentially accounted for as £0 value capital receipts.



APPENDIX 1G:

Example for yield aggregators

Following on from the general LP example above, many platforms often incentivise users to provide liquidity on their platform through the use of token rewards. These are usually received for “locking up” or “staking” the LP tokens. Users often have to claim these rewards manually. However, some platforms offer “auto compounding” and even when this is not offered directly on the platform, third party “Yield Aggregator” or “auto compounding” platforms such as Beefy Finance offer this through their smart contracts.

An example using Beefy:

User holds 1 ETH/DAI LP tokens.

User deposits 1 ETH/DAI LP tokens into the relevant “vault” smart contract on Beefy Finance platform.

User receives 1 mooETH/DAI LP tokens representing their position.

The smart contract vault automatically harvests/claims any rewards earned from staking the LP token and automatically converts these into more ETH/DAI LP tokens which are then automatically staked, compounding the position and effectively increasing the amount of ETH/DAI LP tokens the user will be able to redeem their 1 mooETH/DAI LP tokens for.

After 6 months the user redeems their 1 mooETH/DAI tokens for 1.5 ETH/DAI LP tokens.

The user cannot realise any value from any of these rewards without first converting their mooETH/DAI LP tokens back into ETH/DAI LP tokens and then subsequently exiting the LP back into either ETH, DAI or a combination of both. We would suggest treating the rewards as capital in nature therefore more accurately represents the economic substance of the transactions.

APPENDIX 1H: Market Sizing Estimate of the Ethereum DeFi Ecosystem - June 2023

1. UK Market Size			
Population size	68.9M		https://www.worldometers.info/world-population/uk-population/
Adult age percentage	82.40%		https://en.wikipedia.org/wiki/Demography_of_the_United_Kingdom
Adult population	56.8M		
Percentage of crypto users	10%		https://www.gov.uk/government/publications/individuals-holding-cryptocurrencies-uptake-and-understanding
Crypto users in the UK	5.7M		
2. Ethereum DeFi Market Size			
Number of Ethereum addresses	40.0M		https://dune.com/queries/2972/5739
Addresses per user	Market share	Number of addresses	https://newsletter.defitimes.io/p/how-many-people-use-defi?triedSigningIn=true
Power users	5%	10	
Regular users	45%	2	
Newbies	50%	1	
Average addresses per user		1.9	
Ethereum Defi users globally	21.1M		
3. UK Traffic to DeFi protocol front ends			
Lido	7.67%	1.6M	https://pro.similarweb.com/#/digitalsuite/websiteanalysis/audience-geog



			raphy*/999/3m?key=lido.fi&webSource=Total
MakerDAO	5.36%	1.1M	https://pro.similarweb.com/#/digitalsuite/websiteanalysis/audience-geography/*999/3m?key=oasis.app&webSource=Total
AAVE	6.16%	1.3M	https://pro.similarweb.com/#/digitalsuite/websiteanalysis/audience-geography/*999/3m?key=aave.com&webSource=Total
Uniswap	4.77%	1.0M	https://pro.similarweb.com/#/digitalsuite/websiteanalysis/audience-geography/*999/3m?key=uniswap.org&webSource=Total
CurveFinance	5.30%	1.1M	https://pro.similarweb.com/#/digitalsuite/websiteanalysis/audience-geography/*999/3m?key=curve.fi&webSource=Total
Average Traffic share	5.85%	1.2M	
Estimated Defi users in the UK		1.2M	
Estimated cryptoasset users in the UK		5.7M	
Estimated Defi lending and staking users in the UK		1.2M	
UK Defi lending and staking market share		4.61%	