Toolkit for the Evaluation of Crypto Tax Risks
(Outline)

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1. Introduction

As of 7 September 2023, the global cryptocurrency market capitalization stood at USD $1.04 Trillion. An estimated 425 million people around the world hold some form of crypto asset.¹ The size of the global cryptocurrency market and scale of adoption have made it important for countries to actively assess how their tax systems will respond crypto activities by taxpayers. Nonetheless, most tax laws and systems were designed without crypto assets² and transactions in mind, raising the possibility of “crypto tax risks” that may result in the erosion of the tax base.³ This issue is exacerbated by the presence of limited tax reporting and information gathering systems and mechanisms, if any are in place, in contrast to the pseudonymity which prominently characterizes the crypto market.

This Toolkit seeks to provide a practical, structured framework for the identification and assessment of crypto tax risks that can be used by tax administrations. It has three main parts. Firstly, an introduction to the Toolkit and how it should be used. Secondly, a series of questionnaires to complete. Thirdly, a commentary to provide additional context and details on each part of the Toolkit and its application. As tax administrations go through the questionnaires, they can rely on the Commentary to complement their existing knowledge and expertise to accurately identify the crypto tax risks facing their domestic tax systems.

While this Toolkit is recommended for all countries, those which exhibit one or more of the following characteristics may especially consider using it: 1) countries with a high ranking on the Chainalysis Global Crypto Adoption Index,⁴ 2) countries with a high percentage of residents using the internet,⁵ 3) countries with a less developed traditional banking sector, 4) countries with economic instability as mirrored in high inflation and / or volatile exchange rates, and 5) countries with less developed crypto regulations and / or resources for enforcement. These factors make it more likely for a country to have higher rates of crypto adoption.

Further, some factors enhance the risks faced by tax systems. The challenge for tax administrations to obtain the information they need is arguably the primary among these factors. For tax authorities to have the capability to determine whether taxpayers have filed accurate tax

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² The term “crypto assets” is generally used to refer to digital financial assets (also known as digital tokens) based on distributed ledger technology (see Jean Bacon, et. al., “Blockchain Demystified: A Technical and Legal Introduction to Distributed and Centralised Ledgers” (2018) 25(1) Richmond Journal Law & Technology 1).
returns and fulfilled their tax obligations, it is necessary to have strong reporting and information exchange mechanisms. Likewise, to the extent that effective information gathering systems for crypto transactions are established, tax administrations can apply the Toolkit with greater precision. However, considering that these systems are not yet fully implemented, crypto reporting and tax crime risks have been added as the first risk on the Map of Crypto Tax Risks. A more detailed explanation on this is provided in the Appendix.

2. Using the Toolkit

2.1. Overview

As a starting point, a user of the Toolkit should read the introduction to understand how the Toolkit should be used. This would include reading the Worked Example. The introduction would give background information on crypto assets and provide initial instructions as to how to use the Toolkit. The Worked Example would then further illustrate how the Toolkit should be used in practice.

Following this, the user should select the risk which they wish to analyze from the Map of Crypto Tax Risks and proceed to (1) read the corresponding section of the Commentary to gain an understanding of the risk at and then (2) complete the relevant questionnaire for that risk.

The questionnaires break the issues involved in that particular crypto tax risk into three separate steps. Firstly, identifying the relevant tax principles. Secondly, identifying any differences which arise if crypto assets or transactions are involved. Thirdly, assessing whether there should be any difference in the tax treatment if crypto assets or transactions are involved. Each of the three mains steps will have a set of questions for the user to complete, the results of which (together with the Commentary) determine the level of risk faced by a tax system.

2.2. Map of Crypto Tax Risks

This Toolkit identifies three main categories of crypto tax risks which governments should be prepared to identify and manage: 1) Crypto Reporting and Tax Crime Risks, 2) Crypto Losses and Deductions Risks, and 3) Crypto Functional Substitutes Risks. These main categories are then further subdivided into specific tax risks, creating a “Map of Crypto Tax Risks” (the Map) which tax administrations may practically use as part of the Toolkit to systematically identify and manage these risks. The Map reflects extensive literature review to determine the areas identified by international organizations, academics, non-governmental organizations and industry as those most likely to raise uncertainties as to the proper tax position, raise opportunities for tax avoidance or arbitrage, or generally pose risks to the tax base.

The Map is not intended to be a comprehensive listing of all potentially applicable risks but a selection of those risks that are particularly detrimental to the tax base, which a government with limited resources may choose to prioritize looking at. The Map also focuses on

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6 All sources consulted will be referenced in the full Toolkit.
domestic tax rather than international tax risks as the former are likely to produce the most pressing concerns. There is also a focus on income tax and Value Added Tax ("VAT")/ Goods and Services Tax ("GST") which tend to account for far larger proportions of the tax base than other taxes such as inheritance taxes or transaction taxes.

The Map of Crypto Tax Risks is listed as follows:

<table>
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<tr>
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<tbody>
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<td>1.1. Direct Reporting and Returns</td>
<td>2.1. Losses</td>
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<td>1.2. Intermediaries Reporting</td>
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<td>1.4. International Exchange of Information</td>
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<td>1.6. VAT and Carousel Fraud Risks</td>
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<th>3. Crypto Functional Substitutes Risks</th>
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<tr>
<td>3.1. Issues of Source and Situs</td>
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<td>3.1.1. Determining Source for Decentralized Transactions</td>
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<td>3.1.2. Determining Situs of Decentralized Assets</td>
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<td>3.2. Financial Markets and Instruments</td>
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<td>3.2.1. Equity Instruments</td>
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<td>3.2.2. Debt Instruments</td>
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<td>3.2.3. Hybrid Instruments</td>
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<td>3.2.4. Derivatives</td>
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<td>3.2.5. Forex</td>
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<td>3.2.6. Decentralized Finance (&quot;DeFi&quot;)</td>
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<td>3.2.7. Redeemable Tokens</td>
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<tr>
<td>3.2.8. Non-Re redeemable Asset-Backed Tokens</td>
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<tr>
<td>3.2.9. Stablecoins</td>
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<tr>
<td>3.2.10. VAT Exemptions (Financial Services)</td>
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</tbody>
</table>

A brief commentary of each of the crypto risks is attached as the Appendix.
2.3. Worked Example: Losses from Investment or Speculation (Non-Business)

In the following, a worked example is meant to illustrate (1) how the Toolkit should be used and (2) provide insights into the approach and structure of the Toolkit.

2.3.1. Selecting the Risk to be Analyzed

The process begins with the user going through the “Map of Crypto Tax Risks” and identifying which particular risk they wish to analyze. A tax administration may have a particular risk in mind as part of an existing policy agenda or simply go through the Map as part of a broader exercise of identifying and managing crypto tax risks. This worked example covers “Losses from Investment or Speculation (Non-Business)”, which is a sub-risk of the broader category of “Crypto Losses and Deductions Risks”.

2.3.2. Reading the Background Provided by the Commentary

The user will be asked to consult the relevant part of the Commentary related to this tax risk. For this particular sub-risk, the Commentary would explain that the crypto markets can display considerable volatility, posing the risk of large losses being generated in a short period of time. The key risk to the tax base here is that of the losses being deducted against income from other profitable sources, reducing the net amount of revenue which can be collected from these sources and eroding the tax base.

Apart from the mere fact that it may not be desirable for such large amounts of losses to be deductible in the tax system, there are two other additional situations where it may be particularly objectionable to allow such “crypto losses” to be deducted. Firstly, where the crypto losses are deducted against other sources of income that are not related to crypto (or are insufficiently connected). Secondly, where the crypto losses are “shifted around” in a manner which a tax authority may consider to be distortionary. This may be where the losses are “carried back” (potentially offset against income generated even before any crypto activities took place), “carried forward” (potentially offset against income generated long after any crypto activities have ceased) or shifted to other domestic companies (through a process such as group or consortium relief).

2.3.3. Completing the Questionnaire

After the user has read the Commentary, they would be asked to go through the three steps as discussed in section 2.1 to complete the questionnaire, referring to the Commentary for additional background information where necessary.

**Step 1: Identifying the Relevant Tax Principles**

**Issue A: Does the Existing Tax System Distinguish Between Different Kinds of Losses?**

<table>
<thead>
<tr>
<th>Q1.</th>
<th>Does the existing tax system distinguish between a revenue or capital loss? If so, how would this affect the deductibility of losses?</th>
</tr>
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<tbody>
<tr>
<td>Q2.</td>
<td>Does the existing tax system distinguish between losses by source of income? If so, how would</td>
</tr>
</tbody>
</table>
The Commentary would state that while many tax systems will distinguish between losses incurred from the carrying on of a trade or business and other general losses, there will be other tax systems which do not draw such a distinction. The following (or a hybrid of) categories are common: 1) strict source-by-source matching of each loss with income from the same source; 2) general matching of losses to income of the same general type (most prominent under a schedular system); 3) a general matching of losses to income of the same general type, but with the exception of certain types of losses such as those from a trade or business, which can be set off against all types of income; 4) no requirements of matching of losses to income, restricted only in that capital losses may only be set off against capital gains and vice versa; 5) no requirements of matching losses to gains at all (which should be very rare).

The user is tasked with looking at the various categories listed in the Commentary and identifying which one their existing tax system falls under. The more generous the rules for the deduction of losses are in a tax system, the greater the crypto tax risks and the user should consider whether steps should be taken to manage this.

Sample Answer:

| Issue B: What are the Tests for Distinguishing Between Different Kinds of Losses? |
|---|---|
| Q5. | What test does the existing tax system apply to determine if a loss is revenue or capital in nature? |
| Q6. | What test does the existing tax system apply to determine if losses are from the same source? |
| Q7. | What test does the existing tax system apply to determine if there is a trade or business? |
The question of what legal test a tax system applies to determine if there is a trade or business and how losses are attributed is likely to be a familiar question within the expertise of any tax administration. The Commentary would highlight a range of commonly used tests. For example, the badges of trade test is commonly used to determine if a trade is being carried on. The test for a business might be whether there are activities which are commercially undertaken habitually and systematically. A user will be able to select from a range of common tests and tax features and match their system to a tax system it is most similar to.

Sample Answer:

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<tbody>
<tr>
<td>A.</td>
<td>The existing tax system applies a variety of tests to determine if a loss is revenue or capital in nature. There is a list of factors that may be indicative such as whether the asset disposed of was a personal use asset or whether the intention of the taxpayer was to make a profit. The existing tax system applies a very strict process of source matching, with only dealings in the same kind of asset being considered to be related. The exception is where a trade or business can be established. To establish whether there is a trade, the badges of trade test will be applied. To establish whether there is a business, the question is whether there are activities which are commercially undertaken habitually and systematically.</td>
</tr>
</tbody>
</table>

**Step 2: Identifying Any Differences Which Arise if Crypto Assets or Transactions are Involved**

**Issue A: Do the Tests for Distinguishing Between Different Kinds of Losses Differ if Crypto Assets or Transactions are Involved?**

<table>
<thead>
<tr>
<th>Q10.</th>
<th>Does the test to determine if losses are from the same source differ if crypto assets or transactions are involved?</th>
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<tbody>
<tr>
<td>Q11.</td>
<td>Does the test to determine if there is a trade or business differ if crypto assets or transactions are involved?</td>
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The Commentary would explain that the fact that a crypto asset is involved will affect the application of the badges of trade test in the following ways. Firstly, crypto assets are not generally of a kind considered to be used for investment, but rather for trading. Secondly, the period of ownership to constitute a trade will generally be shorter. Thirdly, the frequency of trading might be greater for crypto assets. Fourthly, dealing with crypto assets with volatile values may more readily constitute gambling and thus, not a trade.

Sample Answer:

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<tbody>
<tr>
<td>A.</td>
<td>Where crypto assets are dealt with, the rules for determining if losses are from the same source are similar to those for shares.</td>
</tr>
</tbody>
</table>
Several indicia of the badges of trade will tend to present differently where crypto assets are involved. The net result is that dealings in crypto assets will generally not constitute a trade or business.

**Step 3: Assessing Whether there Should be Any Difference in the Tax Treatment if Crypto Assets or Transactions are Involved**

<table>
<thead>
<tr>
<th>Q14.</th>
<th>Based on the answers to the questions above, are there any tax policy reasons to justify any differences in the tax treatment if crypto assets or transactions involved?</th>
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<tr>
<td>Q15.</td>
<td>Based on the answers to the questions above, where the existing tax system treats crypto and non-crypto assets and transactions in the same way, are there any tax policy reasons to justify treating them differently?</td>
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<tr>
<td>Q16.</td>
<td>Are any further actions required?</td>
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</table>

The Commentary will explain that it may be beneficial to treat crypto assets and transactions differently from their traditional counterparts for tax purposes due to certain policy reasons. For example, the deductibility of crypto losses may be more restricted due to the high volatility of crypto asset values.

**Sample Answer:**

A. The fact that dealings with crypto assets are less likely to be considered capable of establishing a trade or business is in line with the policy decision to manage the risks of large crypto losses being deducted against other sources of income.

In fact, for the most part, crypto losses are treated in a similar way to non-crypto losses. This does not reflect the higher risks of crypto losses to the tax system and further restrictions should be placed on the deductibility of crypto losses.

Through this process, the Toolkit will help tax administrations identify potential crypto tax risks and the extents to which they may pose a problem for the existing tax system. As the Toolkit is drafted in broad terms, it relies heavily on the existing expertise of tax administrations in determining what the tax position would be under their own tax systems. This process should assist governments in determining whether a particular crypto tax risk is one which warrants management and/or mitigation. The role of the Toolkit is not to prescribe, but to provide a framework for analysis and also options for the consideration of governments.
As this document serves as an outline, this appendix aims to offer insights into the expected structure and content of the Commentary on Crypto Risk which would be part of the Toolkit. It is divided into the three main crypto risk categories.

A.1. Crypto Reporting and Tax Crimes Risks

Crypto assets pose a particular challenge for tax administrations for two main reasons. Firstly, the tax reporting and information gathering systems and mechanisms (if they exist) are likely to be basic and in need of further development. Information on crypto assets and transactions is crucial for tax administrations to effectively manage crypto taxation.

Secondly, crypto assets can be held and transferred under the cloak of pseudonymity, creating a greater risk of tax evasion and other tax crimes. While the crypto asset transactions on the blockchain themselves are typically available in the public domain, this may be of little assistance to tax authorities if it is not possible to identify the individuals or companies behind the ‘wallets’. Attributing the ‘wallets’ to real world individuals or companies is a difficult task.\(^8\) In order for tax authorities to determine if taxpayers have made accurate returns and paid the correct amount of tax, there must be robust systems of reporting and information exchange in place – the exact parameters of which would vary between jurisdictions. This may take the form of a reporting system that aims to track (large) transactions separately, or a system that assesses aggregated values of transactions.

A.1.1. Direct Reporting and Returns

One of the main difficulties with crypto assets and transactions is that it is technically not necessary to go through any intermediary to access the crypto market. Tokens can be freely transferred between individuals (peer-to-peer) without any intermediaries, resulting in potential unregistered ‘wallets’ and making it impossible to identify their owners.\(^9\) As such, it may not be sufficient to gather information on taxpayers and transactions from intermediaries alone. There also need to be systems in place that can help taxpayers to effectively and accurately make reports and returns to the tax authorities by themselves.

This is particularly important because it is arguable that not all tax evasion cases will involve large businesses or premeditated attempts. There can be considerable erosion of the tax base simply from individuals in day-to-day transactions using crypto payment mechanisms rather

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\(^8\) Also see the Report, Section 2.5.1: Problems of Pseudonymity and Reporting.

\(^9\) Also see the Report, Section 4.2.4: Domestic Collection of Information.
than cash or traditional banking facilities, which may form part of the shadow economy and remain virtually undetected by the tax authorities. Such "incidental tax evasion" differs from large, premeditated tax evasion because the perpetrators may not have set out to evade tax. They may adopt crypto payment systems because they are easier to use, more readily available, more reliable, or more cost efficient than traditional payment systems in a country. However, once the transactions are made on the crypto payment systems, taxpayers who realize that the transactions can only be matched to their virtual "wallet" but not directly to them may decide not to declare the income received through such mechanisms. Hence, there may be a need to consider whether systems should be put in place to require taxpayer reporting (in addition to intermediary reporting, see A 1.2).

**A.1.2. Intermediaries Reporting**

Many tax administrations have realized the importance of gathering information on crypto assets and transactions through imposing reporting obligations on intermediaries. The Commentary will discuss the leading models, which users of the Toolkit can consider adopting for their tax systems.

**A.1.2.1. Centralized Crypto Exchanges**

At the present moment, at least, the proportion of crypto holders who are technologically savvy enough to navigate the holding and transfer of crypto assets themselves, without the need for intermediaries, is rather low. The vast majority of crypto holders will still need to use intermediaries and thus the existing tax legislation should be reviewed to ensure that the tax authorities can compel intermediaries to collect and remit such information.

Centralized crypto exchanges are those which directly facilitate crypto transactions for crypto holders; the transfers are done on the exchanges themselves. In some cases, the transactions may even be done "off-the-chain", i.e., a transfer by a crypto holder will not take place on the blockchain itself, but only on the books of the exchange. In such a case, the exchange may collate various transactions of its customers and eventually make a transaction on the blockchain after setting off those transactions on its own internal accounts.

**A.1.2.2. Decentralized Crypto Exchanges**

Not all situations where crypto holders use crypto exchanges will result in transactions occurring on the exchange itself. In the case of decentralized crypto exchanges, the exchange may facilitate the matching of parties who wish to enter into a transaction, while leaving the actual transfer to the parties themselves to execute (in a peer-to-peer transfer).

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10 For example, due to the pseudonymity of crypto transactions, speculative trading activities of individuals may go untaxed.
11 Also see the Report, Section 2.5.2: Tax Evasion.
12 Also see the Report, Section 4.2.4: Domestic Collection of Information.
Such decentralized crypto exchanges may not necessarily collect and keep the same extent of information as for centralized crypto exchanges. The existing tax legislation should be reviewed to ensure that decentralized crypto exchanges will still have some reporting and information collection obligations and cannot be totally let off the hook just because they merely match parties on the exchange.

\textit{A.1.2.3. Traditional Intermediaries}

Crypto assets are fundamentally useless if they cannot be traded for real world financial assets or tangibles. At some point, crypto assets must interface with the traditional banking system to be of worth. As such, the tax authorities should continue to gather information from banks and other financial institutions on these exchanges, which they can use to obtain a better picture of taxpayer’s affairs, including those relating to crypto assets. Tax authorities should look out for and carefully monitor sudden inexplicable inflows of funds, which could suggest that crypto assets have been exchanged for fiat currency.\textsuperscript{13} It may be necessary to review the current reporting obligations of traditional intermediaries and ensure that they are fit for purpose.

\textit{A.1.3. Investigative Powers}

Apart from ensuring that there are systems in place to ensure reporting and gathering of information from taxpayers (directly) and other intermediaries, existing tax legislation should also be reviewed to ensure that the tax authorities have sufficient investigative powers to compel taxpayer and intermediaries to provide additional information and assist with investigations. It also needs to be ensured that tax administrations are sufficiently equipped with capacity in this area, given the complexity of crypto assets. This is particularly important in countries where traditional banking systems have recently started to develop, which also tend to be those with a relatively higher rate of crypto adoption.\textsuperscript{14}

\textit{A.1.4. Exchange of Information}

Apart from domestic sources of information, there are a range of international initiatives in place to facilitate international exchange of information which aid tax authorities in getting a clearer picture of the natural persons behind structures and transactions.\textsuperscript{15} Existing tax legislation and processes should be reviewed to ensure that tax administrations are in the best possible position to benefit from international exchange of information, both in terms of actually receiving the information and in using the information in tax audits.

\textsuperscript{13} Also see the Report, Section 4.2.4: Domestic Collection of Information.
\textsuperscript{14} Also see the Report, Section 2.5.1: Problems of Pseudonymity and Reporting.
\textsuperscript{15} Also see the Report, Section 4.2.5: Exchange of Information, which discusses the Organization for Economic Co-operation and Development’s Crypto-Asset Reporting Framework, the European Commission’s Council Directive Amending Directive 2011/16/EU on Administrative Cooperation in the Field of Taxation (“DAC8”), and Financial Action Taskforce’s Updated Guidance for a Risk-Based Approach to Virtual Assets and Virtual Asset Service Providers.
A.1.5. Taxation of Illegal Transactions

Crypto assets and/or transactions may be banned in some jurisdictions. They may also be used for illegal activities. While most jurisdictions will take the position that income from illegal transactions will nevertheless be taxable, this is a sensitive matter because tax administrations must be careful not to seem to legitimize illegal crypto transactions while seeking to tax them. Any guidance issued by tax administrations should make it clear that income from any legal or illegal source will be taxable and that taxpayers should clarify the legality of their transactions with the relevant (non-tax) authorities.

A.1.6. VAT and Carousel Fraud Risks

Carousel fraud is a type of VAT fraud scheme where fake VAT input tax claims are made by purportedly supplying goods through a supply chain. It tends to work best where the goods are very expensive and easy to transport. Certain kinds of crypto assets such as non-fungible tokens (NFTs)\(^\text{16}\) may potentially be used in carousel fraud schemes due to satisfying these conditions. As such, existing tax legislation and processes should be reviewed to ensure that the risk of carousel fraud when it comes to crypto assets is guarded against.

A.2. Crypto Losses and Deductions Risks

The general risks posed by crypto losses and deductions are those of cross-subsidization of crypto activities by other non-crypto activities, through the use of crypto losses and deductions to set-off income from non-crypto activities, thereby potentially eroding the tax base.

A.2.1. Losses

Crypto losses are a concern because crypto asset values are extremely volatile and can result in a large amount of losses being incurred in a very short span of time. Next to crypto losses being offset against current profits, there is the possibility that such losses may be “shifted around” in a manner which the tax authorities may consider to be unfair. This may be where the losses are “carried back” (potentially offset against income generated even before any crypto activities took place), “carried forward” (potentially offset against income generated long after any crypto activities have ceased) or shifted to other domestic companies (through a process such as group or consortium relief).

A.2.1.1. Losses from Investment or Speculation (Non-Business)

Many tax systems may distinguish between losses which are incurred in the course of a trade or business and those from general non-trade or business activities (e.g., investment or speculation), usually offering more favorable tax treatment for losses within trade or business activities. This makes the tests for establishing a trade or business and attributing a

\(^{16}\) Non-fungible tokens (NFTs) are assets that have been tokenized via a blockchain. They are assigned unique identification codes and metadata that distinguish them from other tokens.
loss to it important ones. In particular, as many tax systems provide that gambling will not be considered to be a trade or business except in very exceptional circumstances, the test for whether crypto dealing will be considered to be gambling is also essential.

A.2.1.2. Losses from Trading in Crypto Assets

Where it is clear that a taxpayer is indeed trading in crypto assets (for example, where a taxpayer is a professional fund manager investing in crypto assets), it may be necessary to determine whether the losses from trading in crypto assets should be subject to special rules restricting their deduction against income from other sources.

A.2.1.3. Losses from Crypto Dealings as Part of a Broader Non-Crypto Business

In some cases, a taxpayer may deal with crypto assets as part of a broader non-crypto business. In such cases, there may be a need for special rules to determine to what extent any crypto losses may reasonably be deductible against income from the broader business. Such situations should arguably be treated differently from those where a taxpayer deals exclusively in crypto assets as the risks to the taxpayer may be different.

A.2.2. Donations

There have been an increasing number of donations made in crypto assets and charities have also increasingly been prepared to accept donations in crypto assets. Existing tax laws may not have expressly contemplated such donations, making it necessary to consider if they are fit for purpose. The first question to be asked is whether donations of crypto assets should be tax deductible. If so, there will be issues of valuation to ensure that a fair value is attributed to the crypto donations. Further, there may be a need for a deemed realization rule. Where crypto assets are donated and a tax deduction is allowed, the tax authorities should consider having rules in place under which the assets are deemed to have been sold at market value.

A.2.2.1. Donations of Payment Tokens

As donations of payment tokens are more likely to be akin to fiat currencies, fewer issues of valuation and deemed realization arise, even though this may still be an issue for less-frequently traded payment tokens.

A.2.2.2. Donations of Non-Payment Tokens

Donations of non-payment tokens are likely to be more difficult to accurately value and a policy decision will have to be made as to whether tax deductions should be granted in the first place.

A.3. Crypto Functional Substitutes Risks

The general risk posed by crypto assets and transactions acting as “functional substitutes” for traditional assets and transactions is that existing tax laws were often drafted without crypto assets in mind, potentially producing a host of unintended tax consequence and opportunities for
tax arbitrage.\textsuperscript{17} It is possible that revenue loss can occur where: 1) tax authorities do not tax crypto assets and transactions; 2) ‘functionally equivalent’ crypto assets and transactions attract a more favorable tax treatment than their traditional counterparts; 3) tax authorities incorrectly apply tax law to crypto assets and transactions.

A.3.1. Issues of Source and Situs

In many tax systems, questions of source and situs have important tax implications. Crypto assets exist in systems which are decentralized, raising questions as to whether current tax systems are well-placed to deal with them.\textsuperscript{18}

\textit{A.3.1.1. Determining Source for Decentralized Transactions}

To some extent, the same issues which have arisen in the context of the taxation of the digital economy will arise, in that it may be difficult to determine where activities take place through digital means. This is likely to be even more difficult where the decentralized nature of crypto assets is involved.

\textit{A.3.1.2. Determining Situs of Decentralized Assets}

In some tax systems, the jurisdiction in which assets are sited or registered may be a relevant consideration. As crypto assets are recorded on the blockchain in a decentralized manner, the traditional tests may not work as intended.

\textit{A.3.1.3. DAOs}

In many tax systems, the place of effective control and management of a company influences the determination of both source and residence. Decentralized Autonomous Organizations (DAOs)\textsuperscript{19} present particular difficulties because decisions may be made by a very large number of token holders spread across a wide variety of jurisdictions, making it impossible to determine the place of effective control and management through traditional tests. It is likely that a new test for source and residence may be required where DAOs are involved.

\textit{A.3.1.4. Place of Supply and other VAT Issues}

Crypto assets and transactions pose a number of difficulties for the administration of indirect taxes such as GST or VAT. The starting point is that such taxes are based on ‘supplies’ of ‘goods or services’. Thus, it is necessary to pin down issues like the identity of the supplier, the recipient, the place of supply and even whether there could be a dual supply. The idea that indirect taxes are supposed to be based on the place of supply does not apply well to a system where digital goods and services can cross jurisdictional boundaries easily.

\textsuperscript{17} Also see the Report, Section 2.2.2: Tax Differentials from Application of Existing Tax Law.
\textsuperscript{18} Also see the Report, Section 1: Introduction.
\textsuperscript{19} A DAO is a collectively-owned, blockchain-governed organization working towards a shared mission.
Further, the decentralized nature of the blockchain can complicate findings of the place of supply.\(^20\)

**A.3.2. Financial Markets and Instruments**

In many tax systems, financial markets and instruments are often subject to certain highly specific tax rules designed to deal with their unique characteristics and address the ease with which they can readily be manipulated to artificially reduce income or generate artificial tax losses. Such tax rules may refer to certain specific terms, which need to be assessed to determine whether they are broad enough to apply to crypto assets. It cannot be assumed that just because a crypto asset is “functionally equivalent” to a traditional financial instrument, that the existing tax system would ascribe the same tax treatment to it.

*\(A.3.2.1.\) Equity Instruments*

For equity instruments, the existing tax legislation should be reviewed to check whether the specific term “shares” is used and whether such a term is capable of encompassing crypto assets which act as equity instruments. There are a variety of situations such as “share buybacks” and “share splits” which may attract different tax consequences from their traditional counterparts where crypto assets are involved.\(^21\)

*\(A.3.2.2.\) Debt Instruments*

For debt instruments, one key risk is whether the existing tax legislation refers to a loan of “money” rather than being able to catch a wide range of other assets that can be loaned out. As crypto assets are unlikely to be considered to constitute “money”, this may result in different tax consequences applying to loans of crypto assets rather than traditional loans.\(^22\)

*\(A.3.2.3.\) Hybrid Instruments*

Most tax systems envision the possibility of a financial instrument being a hybrid with both characteristics of equity and debt instruments. The resulting tax treatment will typically be based on the features exhibited by a hybrid instrument and whether they are closer to those of an equity or debt instrument. Thus, a proper review of equity and debt instruments and the suitability of the current tax legislation with respect to crypto assets in those contexts will also affect hybrid instruments.

*\(A.3.2.4.\) Derivatives*

There are a wide range of financial instruments which are not necessarily equity or debt instruments themselves but are based on such instruments or other assets such as commodities. Crypto assets may be structured to play the role of traditional derivatives or

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\(^20\) Also see the Report, Section 3.2.4: Indirect Taxes.

\(^21\) Also see the Report, Section 2.2.2.1: Token Burning.

\(^22\) Also see the Report, Section 2.2.2.3: Deductibility of Borrowing Costs.
there may be derivatives of crypto assets. The existing tax legislation will have to be reviewed to ensure that the tax treatment of both such categories is in line with the intended tax policies.

A.3.2.5. Forex

In many jurisdictions, the trading of foreign currencies is typically subject to a different tax regime from that of trading in other non-currency assets. At the moment, most jurisdictions will not consider crypto assets to be foreign currencies, though the situation may change with the rise of Central Bank Digital Currencies. A policy decision will need to be made whether payment tokens intended for use as a medium of exchange should be subject to different tax rules and if so, what safeguards need to be in place.

A.3.2.6. DeFi

The rise of decentralized finance (DeFi) has made borrowing and lending much more accessible, beyond traditionally large financial institutions. There are numerous new innovations in this space such as “liquidity pool tokens” which need to be compared against their traditional counterparts and a policy decision made as to what their tax treatment should be.

A.3.2.7. Redeemable Tokens

One particular category of asset-backed tokens are those which allow the holder to redeem the underlying assets if certain conditions are met. A policy decision will have to be made whether such tokens should be treated as if they are the underlying assets themselves or whether they should be treated differently as derivatives. One potential consideration might be the nature of the underlying assets themselves. For example, if the underlying assets are currencies, commodities or other crypto assets.

A.3.2.8. Non-Redeemable Asset-Backed Tokens

Non-redeemable asset-backed tokens are likely to be far more common than their redeemable counterparts. Similar policy issues arise, though the case for treating these tokens as if they were their underlying assets would be weaker. Non-redeemable asset-backed tokens may be backed by underlying assets to various degrees rather than a straightforward 1-1 basis. For example, only 50 per cent of the face value of a token may be backed by underlying assets. Further, the tokens may be backed by a mixture of underlying assets rather than a single asset class alone.

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23 Also see the Report, Section A1.1.5: ‘CBDCs’.
24 Decentralized finance (DeFi) uses cryptocurrency and blockchain technology to manage financial transactions with the goal to democratize finance through reliance on peer-to-peer relationships that can provide a full spectrum of financial services such as loans and asset trading.
25 Also see the Report, Section A1.3.5: Other Kinds of Tokens.
26 Also see the Report, Section A1.3.3: Refinement and Development of the Original Framework.
A.3.2.9. Stablecoins

Stablecoins are tokens designed to maintain a stable value relative to a specified asset, or a pool or basket of assets (“pegging”).\(^{27}\) They may or may not be backed by underlying assets, and even if they are, they may not be backed on a 1:1 basis. There are a sub-class of stablecoins known as “algorithmic stablecoins” which are not backed by underlying assets but instead attempt to maintain their peg through the use of a combination of financial engineering, algorithms and market incentives. It may also be possible for stablecoins to be designed to maintain their peg through the use of hedging instruments. The existing tax legislation will have to be reviewed to determine if stablecoins are adequately covered like their traditional counterparts.

A.3.2.10. VAT Exemptions (Financial Services)

In many jurisdictions, financial instruments or services are exempted from VAT/GST. The key question is how different categories of crypto assets will be classified under the existing tax legislation for VAT/GST purposes and whether they will be subjected to the same tax treatment as their traditional counterparts.\(^{28}\) Given that VAT/GST exemptions are understandably tightly drafted, it is possible that crypto assets acting as functional substitutes to their traditional counterparts will not be able to benefit from an exemption. However, care must be taken if a policy decision is made to extend the exemptions, for there is a risk of erosion of the tax base if it is made too easy to qualify for the exemption simply by placing an asset in a “crypto wrapper”, that is, to use a crypto asset as a derivative.

A.3.3. Cryptocurrency as a Medium of Exchange

The primary concern where crypto is used (solely) as a medium of exchange is whether it should be treated in substantially the same way as currency rather than as an asset. Treating a medium of exchange as an asset will likely discourage its use as the tax treatment and administration procedures are likely to be considerably less favorable. It is also important to ensure that the existing tax legislation is capable of recognizing the situations where crypto is used as a medium of exchange and appropriately tax those situations.

A.3.3.1. Exchange of Cryptocurrency for Fiat Currency

In many jurisdictions, the exchange of crypto for fiat currency will be a realization event and accordingly taxable.\(^{29}\) Where crypto is used as a medium of exchange, a policy decision will need to be made as to whether it should be subject to different tax rules intended for Forex transactions (if they exist in a jurisdiction) and if so, what safeguards need to be in place.

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\(^{27}\) Also see the Report, Section A1.3.3: Refinement and Development of the Original Framework.

\(^{28}\) Also see the Report, Section 3.2.4: Indirect Taxes.

\(^{29}\) Also see the Report, Section 2.2.1.1: Transfer.
A.3.3.2. Exchange of Cryptocurrency for Other Crypto Assets

The main tax issue that may arise where crypto is exchanged for other crypto assets is likely to be one of valuation, since a market price for either crypto asset may not be easy to determine. Clear rules need to be laid out for the valuation process and the circumstances under which a taxpayer will be able to be reasonably certain that the valuation will not be unduly challenged.

A.3.3.3. Exchange of Cryptocurrency for Goods and Services

It is important that where crypto is used as a medium of exchange and used to purchase goods and services that the existing tax legislation is drafted broad enough to be able to recognize and tax such transactions.

A.3.3.4. Payment of Cryptocurrency as Wages

In many jurisdictions, the conferment of benefits other than fiat currency on employees may be subject to a different set of tax rules, such as those involving “fringe benefits”. Where crypto is used as a medium of exchange to pay the wages of employees, it is particularly important to ensure that the tax treatment of such payments are in accordance with the tax policy intent.

A.3.3.5. VAT Exemptions (When Used as Medium of Exchange)

Unless crypto is recognized as fiat currency, the default position in most jurisdictions would be to treat the supply of crypto as that of a barter trade and impose VAT/GST on such a supply. Where crypto is used as a medium of exchange, such a supply may be treated as akin to that of fiat currency (i.e. not a supply within the scope of VAT/GST). A policy decision will have to be made as to how to amend the relevant tax legislation to scope the VAT/GST exemption such that only crypto assets used as a medium of exchange (with specified features and in specified transactions) will qualify. The risk of drafting such an exemption too broadly is that the tax base may be eroded.

A.3.4. Business Using Crypto Assets

Crypto assets are extremely diverse and there are a wide range of business models which do not involve the direct trading of crypto assets as financial instruments but instead incorporate crypto assets into the business in some other way. The policy issue is whether such business models should be treated differently in tax terms vis-à-vis business models which focus on trading crypto assets as financial instruments.

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30 Also see the Report, Section 2.2.1.1: Transfer.
A.3.4.1 NFTs Functioning as Traditional Art

Where NFTs are purchased to function as traditional art, there is an arguably case for treating them differently from other crypto financial instruments.\(^3\) The key question here would be the valuation of the NFTs, a problem which is likewise commonly faced with artwork. Other issues that are commonly faced in connection to artwork such as donations, royalties and potential tax evasion may also need to be considered.

A.3.4.2. Crypto Used as Vouchers

Utility tokens are often designed to serve the function of vouchers,\(^3\) making it important to review the existing tax legislation to ensure that they are accorded the same tax treatment as their traditional counterparts. The taxing point will differ depending on the precise tax rules in the relevant jurisdiction, with some kinds of vouchers subject to GST/VAT immediately upon sale and others only upon redemption.

A.3.4.3. Crypto as a Product Component

In some cases, a crypto asset may be bundled together with other non-crypto products or services as part of a package. For example, NFTs may be bundled together with conventional goods. This may be seen as akin to hybrid business models where businesses package both digital and conventional goods for sale together. In such situations, it may be necessary to review the existing tax legislation to ensure that the supply of the crypto component is accorded an appropriate tax treatment. This is particularly the case because issues such as source may arise.

A.3.4.4. VAT Classification of Supplies

Where crypto assets are supplied by a VAT/GST-registered company, issues arise as to the nature of the supply, given that this may affect the ability of the supplier to claim input tax. For example, if the supply of a crypto asset is classified as a non-supply for VAT/GST purposes (if the crypto asset is treated as akin to fiat currency), the supplier may not be able to claim any input tax on the goods and services which went into making the supply. This makes it necessary to have a clear understanding of how crypto assets may be classified for VAT/GST purposes and a policy decision may need to be made on whether the existing tax position is acceptable.

\(^3\) Also see the Report, Section A1.4.2.4: NFTs.
\(^3\) Also see the Report, Section A1.4.2.2: Utility Tokens.