

THE CASE FOR STRONGER SCRUTINY OF THE DEDUCTIBILITY OF CRYPTO LOSSES

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Abstract

Crypto losses have the potential to adversely impact the tax base, particularly if they are deducted against income from other profitable sources. There is a key question of fairness as to whether crypto losses should be cross-subsidised by income from other sources that may have nothing to do with cryptoassets at all. This article argues for stronger scrutiny of the deductibility of crypto losses at the stage of determining whether such losses can be set off against income from other sources or at the stage of the shifting of the losses across time and between companies. It explains why crypto losses are of particular concern to tax systems and considers how safeguards can be put in place at both stages to safeguard the tax base. In particular, it suggests that specific crypto legislation should be enacted in order to impose a loose “source matching” requirement on crypto losses. Crypto losses from the carrying on of a trade or business should only be deductible against crypto income. That said, there is probably no need to strictly require that the source of the crypto losses must exactly match the source of the crypto income which is sought to be deducted.

Keywords: Crypto Losses, Cryptoassets, Crypto Taxation, Digital Assets.

1. INTRODUCTION

The issue of crypto taxation has grown in importance in recent years, with many tax administrations around the world stepping up their enforcement activities and providing guidance to taxpayers in this area.² Thus far, the focus has very much been on the taxation of crypto gains, with not much discussion having taken place about the tax implications of crypto losses until fairly recently.³ On the part of taxpayers, there appears to be a considerable amount of (often irrational) exuberance in the crypto markets, which is perhaps most obviously manifested in the mantra of “HODLing” (sic).⁴ At the core of this “strategy” is the belief that any falls in the value of cryptoassets are temporary and the market will recover in the long

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² For example, see OECD (2020) and HM Revenue & Customs (2023).

³ For example, according to King (2022), the Australian Tax Office (ATO)’s Deputy Commissioner, Tim Loh, highlighted that it would not be possible for most taxpayers to deduct their crypto losses against their income. Loh went on to state that a taxpayer who wished to offset losses against income “would have to persuade the ATO that their crypto trading was a business activity” (King, 2022).

⁴ This intentional misspelling of “holding” includes an initialism representing “Hold On for Dear Life” (HODL), a “strategy” employed by some crypto investors that involves them refraining from selling their cryptoassets regardless of the paper losses suffered.

term.⁵ The result of this is that crypto investors may fail to consider that they might realise their losses someday and that this could have tax implications. At the moment, the tax authorities are, understandably, more focussed on the potential of cryptoassets as a source of revenue rather than on the risks of excessive losses hurting the tax base. However, all this appears to be set to change. In November 2021, the total market capitalisation of the global cryptocurrency market alone peaked at over US\$2.9 trillion (CoinGecko, 2024). By the end of 2022, this figure had fallen to just US\$798 billion (CoinGecko, 2024).

This article submits that the issue of crypto losses may be a much bigger problem for tax authorities than it may first appear. If crypto losses are permitted to be deducted against income from other profitable sources, this would result in less revenue being collected from those sources, adversely affecting the tax base. While crypto losses can pose issues for tax systems when incurred by individuals and when incurred by companies, individuals pose a much smaller problem than companies in this context. As such, this article will focus more on companies. Recent developments in the crypto markets, such as the “crypto winter” have brought the issue of crypto losses to the forefront. While tax systems have always had to deal with (sometimes massive) losses, this article gives several reasons as to why crypto losses are of particular concern.

It is submitted that tax systems, as they are currently designed, may face considerable difficulties in protecting the tax base from the problem of a massive increase in crypto losses. This article considers the case of Singapore as an example, although it is anticipated that many other jurisdictions may face similar issues. In particular, former British colonies which base their income tax legislation on the Model Colonial Territories Income Tax Ordinance, 1922 (HM Government, 1922) or more broadly on the United Kingdom’s tax system⁶ are most likely to face similar issues, although the issues discussed in this article are likely to be common to most tax systems. At its core, the normative question that has to be addressed by national legislatures is the extent to which crypto losses should be deductible against income from non-crypto-related sources. For some legislatures, the answer might well be “not at all”. While some jurisdictions may already have safeguards in place to regulate the deductibility of losses, none of these safeguards were enacted with crypto losses in mind and it is an opportune time for national legislatures to review their tax systems on this point.

2. A BRIEF INTRODUCTION TO CRYPTOASSETS AND CRYPTO LOSSES

Cryptoassets

While there is no universally accepted definition of cryptoassets, they are generally understood to be digital financial assets that are based on distributed ledger technology (DLT)(Bacon et al., 2018). Multiple computers work together to maintain records of such assets on a decentralised network, as opposed to a more common centralised system involving only one computer that is responsible for maintaining a definitive record. Cryptoassets are representations of value in the record which may be held and transferred by persons holding a

⁵ Proponents of this “strategy” often point to, inter alia, the idea that certain cryptocurrencies have a “hard cap” on the supply of tokens and that this supply limitation will ensure that the value of the tokens is preserved. The maximum limit of 21 million Bitcoins that can be issued, present in Bitcoin’s source code, is commonly used as an example.

⁶ See Harris (2002); Thuronyi (1998) on pp. 484–485.

string of code that permits them to make changes to the record—a “private key” (Ooi et al., 2022).

Depending on the functions performed by cryptoassets, they are often divided into three main categories, although such a classification is neither exclusive nor exhaustive. Cryptoassets that are intended to be used as a medium of exchange are known as “payment tokens” (or cryptocurrencies), while those intended to be redeemed for goods or services at a later stage are known as “utility tokens”, and those analogous to traditional forms of securities are known as “security tokens” (Swiss Financial Supervisory Authority FINMA, 2018). Other categories of cryptoasset include those backed by some kind of asset such as precious metals or other currencies (known as “asset-backed tokens”) (Garcia-Teruel & Simón-Moreno, 2021) and units “of data stored on a blockchain (ie an immutable and transparent public digital ledger) that certifies any digital file to be unique”—known as “non-fungible tokens (NFTs) (Lim, 2021, p. 70).

Technically speaking, a “token” is a form of digital asset that is built on the infrastructure of an existing blockchain (using what are colloquially known as “smart contracts”), while a “coin” is a form of digital currency that often has its own blockchain (the term in common usage is “native to a blockchain”). As such, most cryptocurrencies are actually “coins” rather than “tokens”, making the label “payment token”, strictly speaking, inaccurate. That said, guidance from the tax authorities of many jurisdictions does not always draw this distinction. It is noted that, in Singapore, the term “digital payment token” is clearly defined in the tax legislation to include cryptocurrencies (see section 2A of the Singapore Goods and Services Tax Act, 1993).

Crypto Losses

As there are many different kinds of cryptoasset available, there are various ways in which gains or losses can be made on them. For example, it is possible to engage in the creation of cryptoassets through processes known as “mining” or “forging”⁷ and make either gains or losses depending on how successful one is. Alternatively, one could engage in the borrowing and lending of cryptoassets in a similar manner to what a bank might do with fiat currency and potentially make gains or losses that way. However, it is far more common for people to speculate or trade in cryptoassets, acquiring them in the hope of disposing of them later for a gain. It is this activity of buying and selling cryptoassets that will be the focus of this article and any references to “crypto losses” will largely focus on the kinds of losses that can result from the sale of cryptoassets at lower prices than those for which they were acquired.

3. THE ISSUE WITH CRYPTO LOSSES

Background: Recent Developments in the Crypto Markets

There have been several recent events in the crypto market that may have shaken the confidence of even the staunchest “HODLer” (sic). Arguably, the 2022 “crypto winter” started in May 2022, when TerraUSD (UST), a “stablecoin” (Clements, 2021) failed to maintain its 1:1 peg with the U.S. dollar, resulting in a loss of confidence in the stablecoin and a massive sell-off by investors. Stablecoins are designed to maintain parity in value with currency or assets. The most straightforward way in which to do this is to ensure that the stablecoins are backed by underlying assets. However, TerraUSD (and many other stablecoins) are “algorithmic

⁷ See OECD (2020) on p. 13.

stablecoins”, meaning that they attempt to maintain their peg using a combination of financial engineering, algorithms, and market incentives. This model has been heavily criticised as being inherently unstable (Ehrlich, 2022).

TerraUSD plunged to less than 1% of its value before the crash. This was not the first stablecoin failure,⁸ but it had a much more catastrophic effect on the crypto markets, as TerraUSD was “the fourth-largest stablecoin” at the time, “with USD \$18 billion in market capitalisation” (Briola et al., 2023, p. 1). There were considerable spill-over effects as other cryptocurrencies also suffered from a massive drop in value (Bettes, 2022; Hammer, 2022). Those suffering from collateral damage from the fallout included funds,⁹ crypto lending platforms,¹⁰ and crypto exchanges,¹¹ some of which filed for bankruptcy protection. In November 2022, FTX Trading Ltd, a major cryptocurrency exchange, started bankruptcy proceedings (Conlon et al., 2023). The fallout from these bankruptcies led to what has been termed as “crypto contagion”, as financial difficulties spread throughout the financial system.

Why Crypto Losses are of Particular Concern

It is not uncommon for taxpayers to suddenly claim huge losses, particularly after some kind of catastrophic market crash. The issue of crypto losses should, therefore, not be a totally foreign one. The distinctiveness of crypto losses is more one of degree than of kind. As a starting point, both stock market and crypto market crashes pose problems for tax authorities where taxpayers seek to claim the resultant losses against income from other (non-market-related) sources. This reduces the tax payable on the income from these other sources and thus adversely affects the tax base.

There are a few reasons why crypto losses have the potential to do more damage to the tax base than losses from traditional financial markets. Firstly, the massive fluctuations in the value of cryptoassets and their overall volatility eclipse those of traditional financial instruments (Baur & Dimpfl, 2021). Compared to standard financial assets, cryptoassets display much higher dispersion in their returns (Elender et al., 2018), and there is a much greater divergence in the gains and losses between the various tokens. This may, at least in part, be a result of the next reason, which is the general lack of investor protection and education owing to the relative novelty of the crypto markets. Finally, crypto markets are considerably easier to access than traditional financial markets, with generally lower minimum portfolio size requirements, and trading platforms that can be accessed quickly and conveniently. At least until crypto markets stabilise and are better regulated, there is a case for saying that crypto losses should be of particular concern to tax systems.

4. TAX SYSTEMS AND HOW THEY REGULATE THE DEDUCTIBILITY OF LOSSES

The Concept of Source Matching

Tax systems can exhibit significant variation depending on the tax policy choices made by the jurisdiction in question. It is true that virtually no tax system directly subsidises taxpayers for

⁸ Just about a year before, a stablecoin named “IRON” similarly failed to maintain its peg to the U.S. dollar (see Adams & Ibert (2022)).

⁹ For example, Three Arrows Capital (Sigalos, 2022).

¹⁰ For example, Celsius Network (Lennon, 2022).

¹¹ For example, Zipmex (Loh, 2022).

their losses. If losses are to be allowed at all, they must typically be claimed against income or capital gains. At first glance, it may appear that if crypto losses are claimed against prior or future crypto gains, there would not be any net loss to the tax base. The amount of crypto gains would serve as a natural cap to the amount of crypto losses that could be deducted. However, not all tax systems require that losses be deducted against gains from the same source (source matching). Thus, it is possible that crypto losses may be deducted against income or capital gains from other profitable sources that tax would otherwise have had to be paid on. This potentially results in adverse impacts on the tax base.

Tax systems are designed to recognise losses in order to accurately assess net income from, inter alia, trades and businesses. However, if losses from one source are claimed against income from another source where the two sources are completely independent of each other, it is questionable as to whether the losses should be cross-deductible in such a manner. This logic also applies to crypto losses. Tax systems that do not adequately prevent crypto losses from being deducted against income from other (non-crypto) sources expose their tax bases to considerable risks. There are a range of ways in which tax systems can regulate the deductibility of losses and this article evaluates the effectiveness of such mechanisms in the context of crypto losses.

A tax system which has a strict requirement of source matching across the board will certainly be well-protected against the problem of crypto losses. However, few tax systems have such a broadly applicable requirement. It is more common to have a source matching requirement in specific situations instead.

Examples where Source Matching is Required

Singapore does not tax capital gains and does not allow for capital losses to be deducted in any case. However, it is common for tax systems that tax capital gains to apply some kind of source matching requirement when it comes to the deductibility of capital losses. At the very least, there is likely to be legislation which ring-fences the part of the tax system that deals with capital gains from the rest of the general income tax regime. As such, it is often difficult to deduct capital losses against income.

In the case of Singapore, a strict source matching requirement is imposed on losses incurred from all sources other than a trade or business.¹² The source of the losses must exactly match the source of the income which is sought to be deducted against. In addition, such losses cannot be carried forward, carried back, or transferred under the group relief regime (*JD v Comptroller of Income Tax* [2006] 1 SLR(R) (SGHC) at [45], as cited in Ooi, 2019). This requirement is not present for losses from a trade or business, meaning that such losses may be deducted against income from other sources as well. Thus, the question of whether losses originate from the carrying on of a trade or business becomes a very important one, since the impact of other losses on the tax system will likely be quite limited due to the source matching requirement.

It is noted that this article focusses on tax systems that largely adopt the structure of the 1922 Ordinance (HM Government, 1922), which is a schedular system of taxation. In such a system, which head of charge a source falls under is a very important question. As in the case of Singapore, the fact that the source is a trade or business has considerable implications in terms of whether the losses incurred can readily be deducted against income from other sources.

¹² Or a profession or vocation. See Income Tax Act 1947 (Rev. Ed. 2020) (Singapore), s 10(1)(a).

However, any jurisdiction that has a global system of taxation rather than a schedular system might not find it as relevant to focus on this question, since all forms of income are generally taxable.

Provisions Governing the Shifting of Losses

In addition to the issue of whether losses can be deducted against income from other sources, there is a question as to whether they may be shifted in any way. Common ways in which losses can be shifted include carrying them forward, carrying them back, or using them for group relief. The two issues are technically distinct, since it may be possible for a tax system to permit the shifting of losses but only within the same income source, or for losses to be deducted against income from other sources, but not shifted in any other way. In Singapore, only losses from the carrying on of a trade or business can be deducted against income from other sources or shifted. This makes the question of whether losses originate from the carrying on of a trade or business more important. If a trade or business of crypto investment can be established, not only can the resulting crypto losses be deducted against income from other sources, they can also be carried forward, carried back, or utilised for group relief. Under such a tax system, the risk posed by crypto losses to the tax base increases exponentially. Mechanisms designed to safeguard the tax base from the problem of crypto losses can either be targeted at the issue of whether such losses can be set off against income from other sources (“the first stage”) or at the issue of how such losses can be shifted (“the second stage”).

5. DETERMINING WHETHER CRYPTO LOSSES ARE FROM THE CARRYING ON OF A TRADE OR BUSINESS

Establishing the Existence of a Trade or Business of Crypto Investing

In most jurisdictions that follow the 1922 Ordinance (HM Government, 1922), the “Badges of Trade” will generally be used to determine the existence of a trade of buying and selling of crypto assets. The “Badges of Trade” are used as a guide when attempting to determine whether or not a taxpayer has engaged in a trade. The traditional six “Badges of Trade”, as laid out in the Final Report of the Royal Commission on the Taxation of Profits and Income (Cmnd. 9474) (1955) are: 1) “the subject matter of the realisation”; 2) “the length of period of ownership”; 3) “the frequency or number of similar transactions by the same person”; 4) “supplementary work on or in connection with the property realised”; 5) “the circumstances that were responsible for the realisation”; and 6) “motive. (Royal Commission on the Taxation of Profits and Income, 1955, paragraph 116). However, this set of indicia has never been thought to be exhaustive and other indicia considered in later cases have included: 7) the “accounting treatment of assets”; 8) “objects in memorandum of association”; 9) the “separate legal personality” of a “company and lifting the corporate veil”; 10) the “formation/winding up of [the] company” and 11) the “method of financing” (Teo, 1996, pp. 52–73).¹³

To determine whether or not there is a business, the common law test is whether there is a “wide group of activities that are not purely recreational, that are commercially undertaken and usually, but not necessarily, for profit” (*Mitsui Soko (MSI) Pte Ltd v Comptroller of Income Tax* [1997] MSTC 5221 [Income Tax Board of Review], p. 5225),¹⁴ and whether this business

¹³ Teo (1996)’s discussion of the Badges of Trade was cited in *NP and Another v Comptroller of Income Tax* (2007) 4 SLR(R) 599 (SGHC), paragraphs 9–10.

¹⁴ See also the leading case by the Privy Council of *American Leaf Blending Co v Director-General of Inland Revenue* (1978) 3 WLR 985.

is “carried on” in the sense of “habitual and systematic operation, a continuity or repetition of acts or similar operations” (*DEF v Comptroller of Income Tax* [1961] 27 MLJ 55 [Income Tax Board of Review], p. 59). Looking at the two tests for the existence of a trade or business, it would appear that a taxpayer who makes at least a few cryptoasset transactions (i.e. buying and selling cryptoassets with an intention to make a profit) would readily be able to establish that they had a crypto investment/dealing trade or business.

However, Ooi (2021) has argued that, due to the volatile nature of the value of cryptoassets, the determination of whether or not there is a trade or business must also take into consideration whether the taxpayer can be said to be engaging in gambling activities, as that may negate the finding of a trade or business. Thus, in addition to the base tests for determining whether or not there is a trade or business, a further test must be applied, considering: 1) whether the “outcome [is] affected by chance or skill”; 2) the “level of skill of the taxpayer”; 3) the “level of organisation”; and 4) the “nature of the entity” (Ooi, 2021, pp. 328–330).

This complicates the analysis, not least because the case law in this area appears to suggest that a taxpayer buying and selling shares (and, by extension, cryptoassets) would find it very difficult to show that they were trading and not gambling.¹⁵ The bars for establishing the level of skill of the taxpayer and the level of organisation, in particular, appear to be set very high. This is particularly the case where individuals, rather than companies, are involved. In Case No. D74/00, a decision of the Hong Kong Board of Review, it was held that “private individuals would rarely be considered as carrying on a business of trading and securities unless there were other associated activities” (paragraph 41)¹⁶

In contrast, there appears to be support for the position that a company is unlikely to be engaging in gambling activities. For example, Pennycuik J, sitting in the English High Court in *Lewis Emmanuel* reasoned that “in general it is much more difficult to bring the activities of a company within this class of gambling transactions” for “few companies can have power to enter into gambling transactions” (*Lewis Emanuel & Son, Ltd. v White [H M Inspector of Taxes]*) [1963-1966] 42 TC 369, p. 378). He added that “[w]here a transaction can be brought within the scope of an authorised object - e.g., investment or dealing - one would not readily treat the transaction as having been carried out *ultra vires* in pursuit of an unauthorised object - e.g., gambling” (*Lewis Emanuel & Son, Ltd. v White [H M Inspector of Taxes]*) [1963-1966] 42 TC 369, p. 378).

With respect to Pennycuik J, this line of reasoning is a little difficult to follow. The fact that whether a transaction is *ultra vires* as a matter of company law should have no bearing on whether or not it constitutes gambling as a matter of tax law. The modern reality is also that company constitutions are drafted to have a very broad scope, meaning that they are likely to be able to encompass almost all forms of activities and unlikely to expressly prohibit gambling. Thus, there does not appear to be much basis for a presumption that companies investing in cryptoassets are not gambling based on Pennycuik J’s line of reasoning.

In determining whether a company is engaged in a trade or business of crypto investment, a holistic assessment of the situation should be conducted and the simple fact of incorporation or otherwise should not be determinative. Instead, more weight should be placed on the other

¹⁵ See *Lee Yee Shing Jacky, Yeung Yuk Ching v Board of Review (Inland Revenue Ordinance) Commissioner of Inland Revenue* (2008) 2 HKC 436 (HKCFA) at pp. 104 and 107.

¹⁶ See Hong Kong Board of Review, Published Decisions Vol 15, Second Supplement, Case No. D74/00 (25 October 2000), <https://www.info.gov.hk/bor/en/decisions/decision-15-2nd-sup.htm>.

three factors of the test, namely whether the outcome is affected by chance or skill, the level of skill of the taxpayer, and the level of organisation. A quick look at the crypto market may well suggest that some companies are engaging in such risky trading behaviour that they might be said to be gambling, regardless of what their company constitutions say on the matter.

Determining if the Crypto Investment Activities are Part of an Existing Trade or Business

Apart from the main question of whether crypto investment activities can independently constitute the carrying on of a trade or business, a sub-question that should also be considered is whether or not such activities can be considered to be part of an existing trade or business. One scenario that is likely to be common is that of an investment fund diversifying its existing investment portfolio by making crypto investments. The question is whether or not the main business of the investment fund would affect the determination of whether or not the crypto investments are part of a trade or business. A similar issue came before the Singapore Court of Appeal in *Comptroller of Income Tax v BBO* (2014) 2 SLR 609 (SGCA), which involved the determination of the nature of gains from the sale of shares by an insurance business. The court noted that prior cases had recognised that the nature of an insurance business made it more likely that the gains had arisen in the course of business and were income in nature,¹⁷ but ultimately held that the nature of the gains was a question of fact and that no absolute or immutable principle of law applied just because the taxpayer in question was an insurer.¹⁸ The court emphasised that it was “not discharged from its role as fact-finder solely by virtue of the fact that the taxpayer is engaged in the business of insurance or something similar” (*Comptroller of Income Tax v BBO* [2014] 2 SLR 609 [SGCA], paragraph 26).

However, the court also added that “as a matter of practicality, the nature of insurance (or similar) businesses would ordinarily give rise to an inference that the gains concerned arose in the course of trade or in the operation of business in carrying out a scheme for profit-making” (*Comptroller of Income Tax v BBO* [2014] 2 SLR 609 [SGCA], paragraph 40). Thus, the question arises as to what kinds of primary business would be capable of giving rise to such an inference in the context of crypto trading. For example, would it be sufficient for a fund manager to establish that it was carrying on a business of crypto trading due to the nature of its primary business? What if a fund manager with a primary business in trading in stable cryptocurrencies suddenly decided to invest in very volatile tokens instead? Would the investments in the very volatile tokens be considered to be part of the primary business or a secondary activity of gambling?

Unfortunately, the case law does not provide any clear answers, but it is arguable, at least, that in applying the tests to determine whether or not an activity can constitute a trade or business, or part of an existing trade or business, the other activities of a taxpayer should be taken into account as well. It is submitted that, while an existing trade or business can be a factor militating towards a finding that crypto investing is part of the primary business, it is, nevertheless, only one factor that should be considered as part of the test for determining whether or not a company is engaging in gambling.

¹⁷ See *Comptroller of Income Tax v BBO* (2014) 2 SLR 609 (SGCA) at paragraphs 20–26, in particular, where *Commissioner of Inland Revenue v Sincere Insurance and Investment Co Ltd* (1973) HKCU 47 is cited.

¹⁸ See *Comptroller of Income Tax v BBO* (2014) 2 SLR 609 (SGCA) at paragraph 25.

Is There an Additional Need to Ring-Fence Crypto Losses?

As noted above, in Singapore, once a taxpayer establishes that crypto investment activities constitute a trade or business, all the losses from this source may quite freely be deducted against income from other sources. There would be no further need to establish that the sources of income were connected to crypto activities in any way or that crypto activities were part of the trade or business generating that income. Furthermore, such crypto losses might be shifted by being carried forwards, carried back, or used for group relief.

Based on the tests for establishing the existence of a trade or business of crypto investing discussed above, there is a real possibility that many companies will succeed in showing that they were indeed engaged in such a trade or business, exposing tax systems to the problem of crypto losses adversely affecting the tax base. National legislatures may be of the view that this is somewhat unfair and that crypto losses should be ring-fenced such that they can only be claimed against income from sources that are connected to cryptoassets in some way. Otherwise, it might be argued that the crypto losses are being cross-subsidised by tax savings from other non-crypto-related sources of income. Such a cross-subsidy has the potential to adversely affect the tax base and may even encourage taxpayers to engage in riskier crypto investments if their losses can be claimed against their other sources of income.

How Should Crypto Losses be Ring-Fenced?¹⁹

There are a variety of methods by which crypto losses may be ring-fenced from income from other sources such that they will not be cross-subsidised. These methods can apply generally to all kinds of losses (“generally applicable methods”) or specifically to crypto losses (“crypto-specific methods”). Many potential generally-applicable methods have already been discussed above and include: 1) restricting the deductibility of capital losses against income; 2) requiring source matching for capital losses to be deductible against income (or against capital gains); 3) restricting the deductibility of losses to income from the same head of charge; and 4) requiring source matching for losses. However, it is noted that making changes to the tax system that apply generally across all kinds of losses is a decision that must be carefully considered as there may well be unintended consequences. Ultimately, it may be more feasible to apply crypto-specific methods that are more targeted and present a lower risk of destabilising the tax system instead.

For crypto-specific methods to be successfully applied, it is first necessary to draft a definition of “crypto losses” that is broad enough to cover all relevant crypto-related losses. This is by no means an easy task, as there is no uniformly and universally accepted definition of a cryptoasset. Recent international initiatives relating to the exchange of information about cryptoassets may provide a good starting point on which to base such a definition. Section IV(A)(1) of the Crypto-Asset Reporting Framework (CARF) rules of the Organisation for Economic Cooperation and Development (OECD) defines a cryptoasset as “a digital representation of value that relies on a cryptographically secured distributed ledger or a similar technology to validate and secure transactions” (OECD, 2022, p. 73). The European Commission’s Directive on Administrative Cooperation (DAC8) defines a cryptoasset as “a digital representation of a value or of a right, which is able to be transferred and stored

¹⁹ The author is particularly grateful to the anonymous reviewers for their suggestions in relation to this part of the article.

electronically, using distributed ledger technology or similar technology” (European Commission, 2023, paragraph 5).²⁰ If a broader definition is sought, the Financial Action Task Force (FATF), uses the term “virtual asset” instead, defining this as “a digital representation of value that can be digitally traded, or transferred, and can be used for payment or investment purposes” (FATF, 2021, p. 109).

Having defined “cryptoassets”, “crypto losses” can simply be defined as any losses incurred due to the realisation or accrual of a decrease in the value of a cryptoasset, whether directly or due to the operation of a cryptoasset derivative. This would be an intentionally broad definition which takes into account the possibility that taxpayers may not directly invest in cryptoassets but may enter into cryptoasset derivatives instead. With “cryptoasset” and “crypto losses” defined, the various crypto-specific methods can then be considered. Many of these methods will be variations of the generally applicable methods that are expressly defined to only apply to crypto losses. Thus, the methods include: 1) restricting the deductibility of crypto capital losses against income; 2) requiring source matching for crypto capital losses to be deductible against income (or against capital gains); 3) restricting the deductibility of crypto losses against income from the same head of charge; and 4) requiring source matching for crypto losses.

The current position in Singapore of allowing (crypto) losses to be freely deducted against income from other sources once it has been established that those losses are derived from a trade or business (in crypto investment activities) may be too generous in the context of crypto losses. However, requiring the kind of strict source matching that prescribes that the source of the losses must exactly match the source of the income which is sought to be deducted against may be considered to be too strict. Under such a requirement, a loss resulting from trading in cryptocurrency A would not be deductible against any income resulting from trading in cryptocurrency B. It is submitted that tax systems may well wish to consider a middle ground between these two extremes.

A potentially acceptable balance may lie in applying the source matching requirement more loosely. In a tax system that taxes capital gains, crypto capital losses should be deductible against crypto capital gains only. In a tax system that does not tax capital gains, crypto revenue losses should be deductible against crypto income only. This should not have the effect of making loss deductions more generous than under the existing tax system. Thus, for example, losses incurred from all sources other than a trade or business should still be subjected to strict source matching. However, crypto losses from the carrying on of a trade or business should be deductible against crypto income from other sources without the need for both sources to be exactly matched. This would ensure that taxpayers are not unfairly taxed on their crypto income while being denied deductions on their crypto losses, but also ensure that crypto losses cannot be freely deductible against income from non-crypto sources.

6. PROVISION GOVERNING THE SHIFTING OF LOSSES

Common Ways in Which Losses May be Shifted

The previous section discussed mechanisms regulating the issue of whether crypto losses can be offset against income from other sources (“the first stage”). This section will discuss mechanisms regulating the issue of how such losses can be shifted (“the second stage”).

²⁰ Recital 5 of the proposed DAC8. See European Commission (2022), paragraphs 16–17.

Common ways in which tax systems allow losses to be shifted include the carrying forward of losses, the carrying back of losses, and the use of group relief.

If crypto losses are allowed to be carried forward, they may affect future revenue collection, since they have the potential to absorb future income (see *Income Tax Act 1947 [Rev. Ed. 2020]*[Singapore], section 37[3]). If the source matching requirement for crypto losses applies at the first stage, such losses will not be deductible against income from other non-crypto sources. However, in the absence of such a requirement, if crypto losses are allowed to be carried forward, the risk of crypto losses being cross-subsidised by future income from other sources will be greatly increased. In some cases, the source of the losses may have completely ceased to exist by the time that the losses are claimed in a subsequent year of assessment (YA) (e.g. where a taxpayer stops investing in cryptoassets).

If crypto losses are allowed to be carried back, they can be used to absorb income from other sources which may have been generated even before the losses themselves were incurred (see *Income Tax Act 1947 [Rev. Ed. 2020]*[Singapore], section 37D[5]). Once again, the source matching requirement for crypto losses at the first stage will determine the risk of crypto losses being cross-subsidised by income from other non-crypto sources. A highly questionable outcome would be one in which crypto losses are deductible against income from non-crypto sources that was generated even before the taxpayer started any crypto-related activities in the first place.

In the case of group relief, crypto losses can be transferred to, and utilised by, other related/group companies (see *Income Tax Act 1947 [Rev. Ed. 2020]*[Singapore], section 37B[6]). Many “group relief qualifying provisions” are drafted on the basis of common shareholding between the members of the group of companies (tested by looking at beneficial ownership and beneficial entitlement). Group relief provisions may affect revenue collection because they allow the losses of one company to be deducted against the income of other members in the group. This creates a real risk of “sale of losses”, where a company may be purchased solely because, by becoming a member of the group, its losses can be used to effectively reduce the income of the other members.

Many tax systems will already include some kind of safeguard against this because this is a classic tax avoidance technique. Once again, the risk of this occurring for crypto losses will depend on whether or not the source matching requirement is applied at the first stage. In the absence of such a requirement, there will be a high risk of crypto losses being “sold” or more generally being deducted against income from other non-crypto sources (of different companies).

Possible Safeguards

There are a range of possible safeguards that can be in place to restrict the shifting of losses at the second stage. In Singapore, the main safeguard for the carrying forward of losses is the “shareholding test”. In order to claim such unabsorbed losses, the Comptroller of Income Tax must be satisfied that the shareholders of the company remained substantially the same on the last day of the year in which the loss was incurred and the first day of the year of assessment (YA) in which the loss would be deductible (see *Income Tax Act 1947 [Rev. Ed. 2020]*[Singapore], section 37[12]). Generally, this means that not less than 50% of the total number of the issued shares of the company must be held by or on behalf of the same shareholders on both dates (see *Income Tax Act 1947 [Rev. Ed. 2020]*[Singapore], section

37[14]). Unabsorbed losses can be carried forward in full for an indefinite number of years (see *Income Tax Act 1947 [Rev. Ed. 2020]*[Singapore], section 37[3]). However, countries such as Malaysia have imposed additional safeguards by limiting the number of years for which losses can be carried forward. Losses incurred prior to YA 2019 could only be carried forward for a maximum of seven consecutive YAs (see *Laws of Malaysia, Act 812, Finance Act 2018*, section 13) and losses incurred from YA 2019 could be carried forward for a maximum of ten consecutive YAs commencing immediately following the relevant YA (see *Laws of Malaysia, Act 53, Income Tax Act 1967*, section 44[5F]).

As for the carrying back of losses, Singapore imposes a range of restrictions. The primary limitation is that the maximum amount of qualifying deduction (which includes allowances, losses, and donations) that can be carried back and deducted for any YA cannot exceed S\$100,000 (see *Income Tax Act 1947 [Rev. Ed. 2020]*[Singapore], section 37D[5]). At the current headline corporate income tax rate in Singapore of 17%, this means that the maximum tax benefit that can be derived from the carrying back of losses per YA is S\$17,000. Thus, the potential for this adversely affecting the tax base is probably limited at best. Further restrictions include the fact that losses can only be carried back to the immediately preceding YA, i.e. for one year only (see *Income Tax Act 1947 [Rev. Ed. 2020]*[Singapore], section 37D[1]). A similar shareholding test applies (see *Income Tax Act 1947 [Rev. Ed. 2020]*[Singapore], section 37D[12-13]).

For group relief, Singapore permits one member of a group of companies—the transferor company—to transfer losses to another member of the same group—the claimant company (see *Income Tax Act 1947 [Rev. Ed. 2020]*[Singapore], section 37B[1]), if certain conditions are met (Ooi, 2017). According to Ooi (2017), two Singapore companies are members of the same group if: 1) “at least 75% of the total number of issued ordinary shares in one company” are “beneficially held, directly or indirectly by the other company” (p. 9);²¹ or 2) “at least 75% of the total number of issued ordinary shares in each of the two companies are beneficially held, directly or indirectly, by a third Singapore company” (p. 9).²² Where a company joins or leaves the group, the amount of losses that may be transferred is prorated accordingly based on the continuous period for which the shareholding condition is met up until the last day of the basis period of the YA in question (see *Income Tax Act 1947 [Rev. Ed. 2020]*[Singapore], section 37B[9]). There is no express requirement that the shareholdings must be maintained, but this will naturally affect the prorating of the amount of losses that may be transferred. Other countries are less generous when it comes to group relief. For example, in Malaysia, a surrendering company may only transfer losses incurred in its first three years of operations.²³ Furthermore, only 70% of the losses of the surrendering company may be transferred, as opposed to 100% in Singapore.

²¹ Section 37B(5) of the *Income Tax Act 1947 (Rev. Ed. 2020)*(Singapore) prescribes a mechanism for the computation of indirect ownership of shares.

²² See section 37B(5) of the *Income Tax Act 1947 (Rev. Ed. 2020)*(Singapore). Ooi (2017) also states that there is an additional requirement that a company which beneficially holds the abovementioned shares must also be “beneficially entitled to at least 75% of any residual profits of the other company [...] available for distribution to that company’s equity holders” and of the residual assets of the other company available for distribution to that company’s equity holders on a winding up (p. 9). See section 37B (4) of the *Income Tax Act 1947 (Rev. Ed. 2020)*(Singapore).

²³ See sections 44A(1) and 44A(1A) of the *Laws of Malaysia, Act 53, Income Act 1967*. This might be four years instead if the first basis period of the surrendering company since commencing operations is less or more than twelve months and the second basis period consists of a period of twelve months. In addition, there are transition provisions for surrendering companies that first commenced their operations in YAs 2015-2017 (see section 13 of *Laws of Malaysia, Act 812, Finance Act 2018*).

Analysing the Safeguards

The main concern is that while safeguards at the second stage may disincentivise the shifting of losses to cross-subsidise crypto losses, they still leave room for such cross-subsidisation of crypto losses at the first stage. If safeguards are absent at the first stage, it is still possible for crypto losses to be deducted against income from other non-crypto-related sources. If safeguards are in place at the second stage, they simply restrict the extent to which crypto losses may be deducted beyond the YAs in which they were incurred and against the income of other companies.

In contrast, if effective safeguards are in place at the first stage, they will significantly restrict the deductibility of crypto losses, meaning that there will not be many losses to shift in the first place. Thus, tax systems should concentrate on ensuring that the safeguards in place at the first stage are carefully and effectively crafted, with safeguards in place at the second stage being only a secondary (and more minor) concern.

It is also possible to utilise a “combined” test, which provides a safeguard that can operate at both stages. Tax systems that wish to ring-fence crypto losses such that they can only be deducted against crypto income can consider enacting a “same business test” that already generally applies to the carrying forward of allowances (see *Income Tax Act 1947 [Rev. Ed. 2020]*[Singapore], section 23[1]). Such a test generally requires that the taxpayer “continues to carry on the trade, profession or business in respect of the gains or profits of which the allowance falls to be made” (*Income Tax Act 1947 [Rev. Ed. 2020]*[Singapore], section 23[1]).²⁴

7. CONCLUSION

This article submits that tax authorities and national legislatures should step up their scrutiny of the deductibility of crypto losses. Apart from the sheer volume of potential crypto losses that may adversely affect the tax base, there is a more fundamental question of fairness as to whether crypto losses should be cross-subsidised by income from other sources that may have nothing to do with cryptoassets at all. There are numerous options for safeguards at both the first and second stages that should be carefully considered. This article submits that safeguards at the first stage are of particular importance and proposes that a loose source matching requirement should apply to crypto losses. Crypto losses from the carrying on of a trade or business should only be deductible against crypto income. However, there is no need to require that the source of the crypto losses must exactly match the source of the crypto income which is sought to be deducted. Crypto losses not incurred from the carrying on of a trade or business should continue to be subject to strict source matching. Whatever policy decisions are made by the relevant authorities, we can be sure that, moving forward, the problem of crypto losses is only going to grow in importance.

²⁴ The corresponding test in Malaysia is contained in schedule 3, paragraph 75 of *Laws of Malaysia, Act 53, Income Act 1967* and appears to be stricter, in that the allowances cannot be deducted against the income from a different source (see the decision of the Malaysian Federal Court in *Director-General of Inland Revenue v A L B Co Sdn Bhd* [1975] 2 MLJ 26).

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