



FINTECH

NOTES

Taxing Stablecoins

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May 2023

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Note 2023/002

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RECOMMENDED CITATION: Waerzeggers, Christophe, Irving Aw, and Jess Cheng. 2023. "Taxing Stablecoins." IMF Fintech Note 2023/002, International Monetary Fund, Washington, DC.

ISBN:	979-8-40022-722-6 (Paper) 979-8-40023-460-6 (ePub) 979-8-40023-473-6 (PDF)
JEL Classification Numbers:	K34
Keywords:	stablecoins; value-added tax; crypto assets; digital payments; tokens; income tax
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* The views expressed in this Note are those of the authors and do not necessarily represent the views of the IMF, its Executive Board, or its management. The authors are grateful to Yan Liu for her support and guidance and to Alessandro Gullo, Wouter Bossu, Cory Hillier, Marianne Bechara, Marion Tamez, Juan Sebastian, and Viancha Trujillo (all Legal Department) and colleagues from other IMF departments for their review and comments.

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Glossary

CJEU	Court of Justice of the European Union
ETFs	forex-based exchange-traded funds
EU	European Union
GST	goods and services tax
IRAS	Inland Revenue Authority of Singapore
VAT	value-added tax

Introduction

Neutrality is widely accepted as a fundamental principle of good tax law design; that is, tax systems should generally strive to be neutral so that economic decisions are not distorted by tax considerations but instead are based on economic merits and other nontax considerations.

Although the tax system can be an effective tool to achieve policy goals beyond revenue collection, most jurisdictions have so far based their approach to taxing transactions involving crypto assets on neutrality.¹ Crypto assets are defined as private digital assets that depend primarily on cryptography and distributed ledger or similar technology (Financial Stability Board 2020, 5).²

Under this approach to taxing transactions involving crypto assets, jurisdictions rely on first principles in their domestic tax legislation to approximate neutrality with comparable conventional transactions or activities.³ Such an approach requires a proper understanding of the facts on a case-by-case basis, which is not easy given the nature and versatility of crypto assets and the crypto industry's distinctive operations. These complexities are further exacerbated by the rapid evolution of the underlying technology and its inherent global reach beyond any single jurisdiction. Similar challenges exist in other areas of law and regulation, including those with the goal of designing sound regulatory and supervisory approaches for crypto assets and their treatment for statistical purposes.⁴

This Note specifically considers the challenges that tax law systems face to achieve neutrality in taxing transactions in one specific type of crypto asset: stablecoins.⁵ Stablecoins are a category of crypto assets that aim to maintain a stable value relative to a specified asset or to a pool of assets, such as sovereign currencies (International Monetary Fund 2021, 41; Financial Stability Board 2020, 5). In this way, they are designed to address the problem of volatility in the prices of crypto assets; price volatility generally makes these assets poor candidates to be a store of value and is one of the main impediments against their more widespread adoption as a means of payment. The prospect of a more widespread adoption of stablecoins warrants a closer look at their tax treatment and associated challenges.

1 Although there may be legitimate policy reasons to instead differentiate the tax treatment of crypto assets from conventional assets with comparable properties—for instance, by imposing a comparatively higher tax burden on crypto assets to internalize environmental externalities that may be associated with the intensive energy usage in crypto mining—such broader policy considerations fall outside the scope of this note.

2 G7 and G20 finance ministers and central bank governors have repeatedly reiterated that no so-called global stablecoins should commence operation until all relevant legal, regulatory, and oversight requirements are adequately addressed through appropriate design and by adhering to applicable standards. See, for example, US Department of the Treasury (2021).

3 Furthermore, when the judiciary is called upon to rule on the tax treatment of a particular crypto asset transaction in a dispute with taxpayers and no special tax rules exist, judges will typically resort to similar forms of analogous reasoning based on common principles of statutory interpretation.

4 Although outside the scope of this Note, many jurisdictions are reviewing and considering enhancements to their legal and regulatory regimes to address specific risks arising from the rapid growth of crypto asset–related activities. See Cuervo, Morozova, and Sugimoto (2019); Financial Stability Board (2021); Bank for International Settlements and International Organization of Securities Commissions (2021); President's Working Group on Financial Markets, Federal Deposit Insurance Corporation, and Office of the Comptroller of the Currency (2021); and HM Treasury (2021). The updates by the IMF's Statistical Department of the Balance of Payments and Investment Position Manual and by the UN Statistical Committee of the System of National Accounts planned for 2025 will address the statistical treatment of crypto assets.

5 Central Bank Digital Currencies—the other form of digital money that has garnered increased interest from policymakers—are not further discussed here. These are simply digital forms of fiat money issued by central banks—capable of being legal tender—and as such can be treated for tax purposes exactly like traditional currencies.

This Note concludes that, without greater tax certainty and neutrality than is currently available, stablecoins are unlikely to be more widely adopted as a means of payment, even if they prove to be more stable in value compared to other forms of crypto assets. Furthermore, mismatches in tax treatment between jurisdictions create opportunities for arbitrage and abuse—more international cooperation and coordination are needed to address these. Finally, clarity on tax treatment is required regardless of whether the value of a particular stablecoin is appreciating or depreciating, because taxpayers and tax administrations need certainty about the appropriate tax treatment of both gains and losses.

This Note is organized into four parts. Part I provides an overview of stablecoins, including a taxonomy of the known types of stablecoins in circulation. Part II examines key value-added tax (VAT) issues specific to stablecoins. Part III discusses key income and capital gains tax implications for transactions involving stablecoins. The discussion is illustrated by referring to representative country practices but does not attempt to provide an exhaustive overview of current country practices or approaches, nor of all possible VAT or income tax issues that may arise from transacting in stablecoins—an exercise that would go beyond what can be covered in a Note of this kind.⁶ Part IV concludes the discussion.

⁶ Such overviews can be found elsewhere, for instance, in Organisation for Economic Cooperation and Development (2020) and PricewaterhouseCoopers (2020).

I. Overview and Taxonomy of Stablecoins

Crypto assets have many advantages—including security through cryptographic encryption—that may make them useful for payment purposes.⁷ However, volatility in the prices of crypto assets severely reduces their potential adoption as a medium of exchange and as a means of payment (IMF (2020)).⁸ Stablecoins have emerged as a subcategory of crypto assets that specifically seek to address this problem, such as by linking or “pegging” their values to those of another, more stable, asset (such as the US dollar, precious metals, or even another crypto asset) or a pool of other assets (for example, a basket of commodities). Almost all stablecoins that are currently in circulation attempt to mitigate their price volatility through some pegging mechanism.

It is important to distinguish between the concepts of “pegging” and “backing,” depending on the nature of the claim that a coin holder may have against the issuer of the coin. The former merely requires the value of a stablecoin to be linked to that of an underlying asset or pool of assets (for instance, a claim against the issuer for redemption at par in US dollars), whereas the latter also involves the stablecoin issuer (or a third party on its behalf) setting aside assets with the understanding that the coin has some claim to those underlying assets (for instance, the pledging or other use of a pool of short-term government securities), possibly as a means to buttress such pegging. This distinction is important because some stablecoins may be clearly pegged to the value of an identified asset or pool of assets but coin holders lack any clear, legally enforceable claim to any particular asset itself.

Stablecoins can be further distinguished based on the type of reference asset against which they are pegged, which can be both on chain (that is, another crypto asset) or off chain (such as traditional currencies or commodities), and a stablecoin can be backed by more than one type of asset. For example, Tether (issued by Tether Limited, originally with the claim that each token was backed by one US dollar), TrueUSD (TrustToken platform), USD Coin (Centre consortium, a partnership between Circle and Coinbase), and Gemini Dollar (Gemini exchange) are pegged to the US dollar and are at least purportedly backed one-for-one in value to various underlying assets. PAX Gold (issued by Paxos Trust Company) is another example of a stablecoin with an off-chain reference asset: precious metals. Each token is described as “redeemable” for and “backed” by one fine troy ounce of London Good Delivery gold stored in professional vault facilities in London. Such off-chain backing inevitably requires some degree of centralization—for example, the safekeeping of the underlying assets by a custodian—which arguably reduces some of the decentralization benefits of distributed ledger-based crypto assets. Further out on the technology spectrum are stablecoins that purport to have their value pegged to or backed by various crypto assets, with some touting full decentralization where the underlying crypto assets are managed by a system of smart contracts rather than by a central entity. For example, Dai runs on the decentralized Maker Protocol and seeks to use Ether to maintain a steady value. However, the precise

⁷ A wider adoption of crypto assets—including stablecoins—also presents clear risks, in particular with respect to their use for illicit purposes and potentially even to financial stability. Necessary anti-money laundering measures and measures to combat the financing of terrorism are discussed in Schwarz and others (2021). Broader financial stability issues in relation to crypto assets, including stablecoins, are discussed in IMF (2021, 47–49).

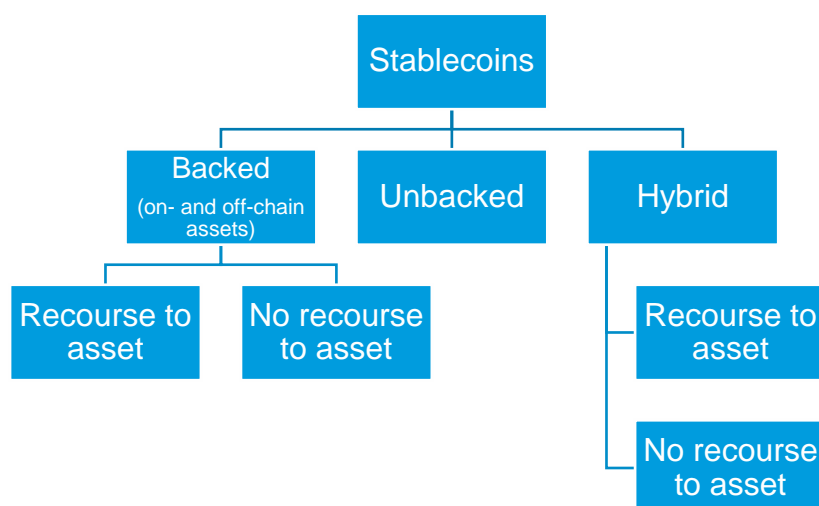
⁸ See Crypto assets such as bitcoin “do not meet the definition of a financial asset—and hence currency—in macroeconomic statistics.” See IMF (2019, 3).

operating models—and thus also the legal nature of the backing mechanism—may differ considerably across stablecoin arrangements.⁹

It is at least in theory possible for stablecoins to not be backed by an underlying asset and yet achieve some degree of price stability. Kowala’s kUSD is one example of such a stablecoin that purports to maintain its peg to the US dollar by increasing or decreasing its supply based on algorithms and information supplied by market-based “oracles” or data interfaces between the blockchain and relevant market data. Such stablecoins rely on a fully algorithmic “monetary” policy that regulates their supply by reference to the value of the peg—that is, the algorithm protocol issues new stablecoins where the supply is too low and reduces their supply (“burns”) where the demand is too low, thus seeking to ensure that the price of the stablecoin stays within an acceptable range of its pegged value. To further complicate matters, stablecoins commonly referred to as “hybrid stablecoins” combine both backing mechanisms as well as algorithmic protocols to mitigate volatility.

As noted previously, it is important to recognize that a holder of a stablecoin pegged to a certain asset may not necessarily have a claim to that particular asset. Rather, the stablecoin could be pegged to the value of one asset but backed by another. For example, the value of the SGA (Saga) stablecoin is pegged to the basket of currencies on which the value of the IMF’s special drawing rights is based, but the stablecoin is backed by reserves in different currencies and assets, including cryptocurrencies. A person who chooses to redeem a stablecoin may therefore obtain an economic equivalent of the asset to which the coin is pegged but not necessarily that asset itself. In this narrow sense, stablecoins could be further subdivided into two types: with or without recourse to an underlying asset.

Figure 1: Categories of Stablecoins



Source: Authors’ compilation

⁹ IMF 2020, 12.

If a stablecoin issuer were able to imbue its coins with the attributes of price stability and an extensive network of users, further boosted by the reputation and market clout of the association supporting the stablecoin arrangements—as Facebook’s Diem (formerly Libra) project sought to do—then such coins may be well suited to achieve an economic purpose as a medium of exchange and store of value. They could serve as a more efficient way to settle retail payment transactions, particularly within jurisdictions that are undergoing periods of extremely volatile currency movements, or they could lower the cost of cross-border payments or enable them between jurisdictions that currently lack efficient interconnecting payment infrastructures (IMF 2020, 14). At the same time, however, these same stablecoins could also be used as a speculative financial instrument by investors who seek to profit from—and who assume the risk of—fluctuations in the coin’s value relative to their local currency.

A challenge, therefore, is determining where stablecoins fit in the existing legal structure, including from a tax perspective (Cheng 2020). Regulatory responses to the rise of stablecoins have been varied, with the possibility of multiple existing regulatory frameworks applying to a given coin (for example, the Swiss Financial Market Supervisory Authority guidelines on stablecoins under Swiss supervisory law note that for a given coin, money laundering, securities trading, banking, fund management, and financial infrastructure regulation can *all* be relevant). For these regulatory purposes, the scope for stablecoins could overlap; a given stablecoin arrangement could check multiple boxes for different regulatory regimes that would all concurrently apply. In contrast, tax law requires a single or predominant classification to determine the treatment of a given coin—in other words, only one box for classification may be checked.

II. VAT Treatment of Stablecoins

VAT and Money

Most VAT systems¹⁰ do not separately tax the supply of money when it is given in payment for a supply of goods or services, and they typically achieve such an outcome by (usually implicitly) deeming such a supply of money as “out of scope” or explicitly excluding it from the definition of “supply.” This is because, conceptually, money is not itself consumed, but it is the measure of consumption expenditure by reference to which the VAT liability in relation to a supply of goods or services (other than money) is determined. As such, the provision of money when used as a medium of exchange and as a means of payment to obtain goods and services does not amount to a separate taxable transaction for VAT purposes. Such an approach also has the practical advantage of reducing complexities by avoiding the need for VAT to be applied twice to a single transaction.

On the other hand, a supply of money in exchange for other currencies, that is, a money exchange transaction, is usually recognized as a supply for VAT purposes, but it is usually exempt from VAT. Excluding these kinds of transactions from the consumption tax base is again appropriate because, in a money exchange transaction, no consumption occurs since it represents either the swapping of one medium of exchange for another or a case of pure investment. Such an exemption is also important for promoting the unencumbered flow of payments by sidestepping the practical challenges of determining the taxable amount and the amount of VAT deductible on a per-transaction basis.¹¹

Treating a supply of money as an exempt supply rather than as a nonsupply (or out-of-scope supply) is not without consequences. Although in both cases no tax is due, the taxable person making the supply will see their input tax credit entitlement reduced to the extent of their output attributable to the making of exempt supplies, whereas they would typically not be so affected when the supply is treated as out of scope. Additionally, from a compliance perspective, jurisdictions generally require exempt supplies to be separately reported in VAT returns, whereas out-of-scope supplies are not reportable at all.

Finally, it should also be noted that money is generally not subject to VAT only if it is used either as a medium of exchange or is acquired as an investment. Where the money supplied is numismatic in nature or a collectors' item, for instance, the supply would usually be taxable because numismatic money has intrinsic value in and of itself and should therefore be subject to VAT as a supply of goods.

Trends in VAT Treatment of Nontraditional Digital Means of Payment

Jurisdictions with a VAT appear to be increasingly willing to treat certain nontraditional digital means of exchange as money for VAT purposes, even though they are not currency and do not benefit from legal tender status (IMF 2020, 11–12).

¹⁰ This section describes the general treatment of money under a general broad-based and noncascading consumption tax in operation in many countries under different names such as a VAT, general sales tax, or goods and services tax (GST).

¹¹ Although (explicit) currency exchange commissions could be taxed accurately under current VAT systems generally based on the credit-invoice mechanism, this is more difficult to achieve for (implicit) margin fees. Although such margins could still be accurately observed in the hands of the exchange service provider on a periodic (for instance, monthly) rather than transaction basis, allocating that value added to individual transactions to ensure that associated VAT credits flow through the business supply chain is difficult. See Schenk and Zee (2004).

In *Skatterverket v. David Hedqvist* Case C-264/14 (*Hedqvist*), the Court of Justice of the European Union (CJEU), through a purposive interpretation of Article 135(1)(e) of the EU VAT Directive, found that for EU VAT purposes, the exchange of traditional currencies for units of nontraditional “moneys” (that is, other than currency that enjoys legal tender status in one or more countries) in return for a spread fee payment (or vice versa) is a VAT-exempt financial transaction. However, the court specified that such VAT-exempt treatment should be extended only to nontraditional “moneys” that (1) have been accepted by the parties as an alternative to currency with legal tender status and (2) have no purpose other than to be a means of payment. The CJEU considered that the imposition of VAT on such exchange transactions—the case concerned exchange transactions between traditional currencies and Bitcoin—faces the same difficulties as those faced by the exchange of (traditional) currencies, namely, determining the taxable amount and the amount of VAT deductible on a transaction-by-transaction basis. Hence, not exempting exchange transactions involving nontraditional moneys such as Bitcoin would deprive the VAT exemption of part of its effect. Accordingly, EU member states should treat such nontraditional money as currency for VAT purposes, as long as it is subjectively accepted by the parties as an alternative to currency and it does not objectively have any purpose other than as means of payment. While *Hedqvist* concerned exchange transactions between Bitcoin and traditional currency, the CJEU’s decision also implies that where nontraditional currencies like Bitcoin are used to acquire goods and services in the EU, their supply is not itself subject to VAT in the same way as if a traditional currency is used.

In 2017, Australia amended its goods and services tax (GST) law so that supplies of digital money when used for payment for other goods and services are subject to the same GST treatment as supplies of currency, that is, not as a supply for GST purposes.¹² The purpose of the law change was to ensure that “digital currency” is defined to “broadly have the same features as state fiat currencies.”¹³ Among other things, a digital currency must *not* (1) be denominated in any country’s currency; (2) have a value that depends on, or is derived from, the value of anything else; or (3) give an entitlement to receive, or to direct the supply of, a particular thing or things, unless such entitlement is purely incidental to its holding or use as consideration.¹⁴ This approach is in contrast with the CJEU decision in *Hedqvist*, which does not explicitly prohibit a digital means of payment from being denominated in a national currency or having its value derived from or depending on the value of something else, but which does require the digital means of payment to have no objective function other than to be used as a means of payment. Therefore, under Australia’s tax law, to the extent that a digital means of payment does not satisfy the definition of “digital currency” because its value depends on or is derived from something else, it will be treated as an “input taxed” supply of financial services (that is, the supply is exempt from output GST and generally no input tax credit is allowed).¹⁵

12 This also means, for instance, that where a supply of digital money is made otherwise than in the course or furtherance of an enterprise, no GST consequences arise for the supplier of the digital money. The law changes relating to digital money should also be distinguished from a separate reform that took effect in the same year and that sought to generally address the challenges of the digitalization of the economy by more comprehensively taxing inbound supplies to Australian consumers of intangibles and low value goods. On reforms of this kind, including in Australia, see Brondolo and Konza (2021).

13 Explanatory Memorandum to Treasury Laws Amendment (2017 Measures No 6) Bill 2017, 9.

14 This, as explained in the explanatory memorandum to the changes to Australia’s GST law, would not “exclude digital currencies that have features that facilitate the use of the unit in particular contexts (for example, a digital currency with inherent features that facilitate its use in smart contracts), provided the use of the currency as consideration is not restricted.”

15 Although in certain circumstances the supplier may be entitled to reduced input tax credits in relation to specified purchases for making financial supplies.

Similarly, as of January 1, 2020, Singapore has effectively treated digital payment tokens as currency for GST purposes; that is, giving them in payment does not amount to a supply, and exchanging digital payment tokens for traditional currencies or other virtual currencies is exempt from GST. The proposed definition of “digital payment token” under a new Section 2A of the GST Act is largely similar to that of Australia’s definition of “digital currency,” with two notable differences. First, it excludes tokens that (1) give an entitlement to receive or to direct the supply of goods or services and (2) cease to function as a medium of exchange after the entitlement has been used. This is less stringent than the Australian GST approach, which prohibits a digital currency from providing any nonincidental entitlement to receive or direct the supply of anything. Second, the token cannot be denominated in any *currency* or pegged by its issuer to any *currency*, as compared to the Australian approach, which does not allow the token to be denominated in any currency nor for its value to be derived from or depend on *anything*. However, notwithstanding the expressed legislative language, the Inland Revenue Authority of Singapore (IRAS) stated in a recent e-Tax Guide that “tokens that are pegged to or backed by any fiat currency, a basket of currencies, commodities, or other assets” should instead be treated as derivatives, the supply of which constitute a GST exempt supply of financial services even when used for payment (IRAS 2022, paragraph 5.7).

VAT and Stablecoins

As discussed, volatility in the prices of crypto assets have generally made them poor candidates as a store of value and hindered their widespread adoption as a means of payment and medium of exchange. By pegging their values to that of other relatively stable currencies or assets, stablecoins seek to resolve this problem. However, the pegging mechanism means that under the Australia and Singapore approach, stablecoins will always be treated as derivatives rather than money so that their supply is exempt rather than ignored altogether, thus raising substantive and administrative or compliance VAT implications for both parties to the transaction. Although the Australian approach, compared to the CJEU approach, is more tolerant toward tokens with incidental purposes other than to be used as a means of payment,¹⁶ it does not change the fact that stablecoins as a class cannot be treated as money because they are inevitably pegged to other assets or currencies for stability.¹⁷

Conversely, under the CJEU approach, the mechanism of pegging—whether to currency or some other asset—does not in itself preclude a stablecoin from VAT treatment as money, provided that the stablecoin was subjectively used *by the parties* as an alternative to currency and objectively has no purpose other than to be a means of payment. On the former requirement, the stability of a coin or token may to some extent support a presumption that parties are more likely to have used it as an alternative to currency. On the other hand, its relative stability should not in and of itself be decisive given that a lack of

16 Even more tolerant is the Singapore approach, which does not preclude a hybrid digital token (that is, stablecoins that have an additional function apart from their use as a means of payment) from being treated as money as long as it continues to function as a medium of exchange after the nonpayment benefit has been redeemed.

17 New Zealand Inland Revenue recently announced that it is considering adopting—retrospectively to 2009, the year Bitcoin was first launched—a broader approach toward excluding crypto assets from GST to also include stablecoins, contrasting in this respect its proposal with the Australian and Singaporean approaches (Inland Revenue 2020). Accordingly, the Taxation Bill (Annual Rates for 2021–22, GST, and Remedial Matters) tabled by the New Zealand government in September 2021 proposes (among other things) to exclude crypto currencies from GST in New Zealand.

stability does not in itself prevent traditional currencies from being treated as money for VAT purposes.¹⁸ The stringency of the latter requirement—that the token objectively has no purpose other than to be a means of payment—may preclude hybrid tokens, including hybrid stablecoins, which may have an objective purpose other than to serve as a means of payment.¹⁹

Pegging and/or Recourse?

In the explanatory memorandum of the Australian amendment bill, it was considered that the value of a digital currency, like traditional currency, “must derive from the market’s assessment of the value of the currency for the purposes of exchange, despite it having no intrinsic value.”²⁰ As such, pegging the value of a digital means of payment to that of another asset or currency would preclude such a unit from qualifying as digital currency for GST purposes. Instead, such a unit would be treated as a derivative instrument, the price of which depends directly on the value of its underlying asset or currency.

However, given that many traditional currencies also use—de facto or de jure—one or more major currencies as an exchange rate anchor, it is unclear why pegging to a traditional currency or a basket of traditional currencies should by itself automatically disqualify a nontraditional digital means of payment from being treated as money for GST purposes.

Moreover, the analogy between stablecoins and derivatives is imperfect. Most derivatives are financial contracts that create rights and obligations between the parties with reference to the value of an underlying asset or currency at a predetermined future date or upon the occurrence of a predetermined event. In contrast, any right or claim that the holder of a stablecoin may have against its issuer or some other person is open ended and on demand, without reference to a fixed date or event in the future, and in the case of algorithmic or seigniorage stablecoins, which are unbacked by assets and are nonredeemable for any other assets, their holders may have only an unsecured claim against the issuer. Similarly, stablecoins that are backed but where recourse to the underlying assets is unclear or nonexistent—including from a lack of consumer protection regulations—do not confer on their bearers any claim to assets, even if such assets are used in some way to maintain the value of the stablecoins, by whatever mechanism.

Instead, a stablecoin pegged to a sovereign currency is more akin to a negotiable promissory note, banknote, or traveler’s check that is payable to its bearer on demand and would be analogous to representative money, except that it is issued by private actors instead of sovereign states and that it does not enjoy legal tender status (that is, unless contractually stipulated otherwise, there is no legal requirement for a creditor to accept a redeemable stablecoin if offered by the debtor in payment of a monetary obligation). The fact that it is not issued by a sovereign state (through its central bank) should not determine whether such a stablecoin should be treated as money for VAT purposes—for example, bank deposits, which represent a claim on commercial banks, are privately issued but nevertheless treated as money. In any case, the treatment of certain types of privately issued nontraditional digital

18 The advocate general in paragraph 44 of her opinion to the CJEU in the *Hedqvist* case similarly concluded that “legal tender is also subject to [the risks of lack of stable value and vulnerability to fraud] to the same extent” as Bitcoin.

19 Again, New Zealand Inland Revenue is proposing a broader approach that would also include hybrid tokens (Inland Revenue 2020).

20 Explanatory Memorandum to Treasury Laws Amendment (2017 Measures No 6) Bill 2017, 9.

currencies as money for VAT or GST purposes is a tacit acknowledgment that issuance by a sovereign state is not a prerequisite. Similarly, the fact that jurisdictions have treated some types of nonlegal tender status digital means of payment as money for VAT purposes implies that legal tender status is not a requirement for something to be used primarily as a medium of exchange and means of payment. In fact, VAT laws typically do not impose a legal tender requirement for something to be treated as money.

However, a stablecoin pegged to an asset other than a sovereign currency raises concerns of VAT leakage or avoidance, given that the supply of the underlying commodity could otherwise be a taxable supply. If the stablecoin is not intended by the parties as a medium of exchange but as a supply of or proxy for the underlying asset, a tax leakage risk occurs to the extent that any supply of the underlying asset is not otherwise also out of scope or exempt. This problem is compounded by the low-entry barrier for token creation and issuance, which may make it possible for private individuals to avoid VAT on an otherwise taxable supply of commodities by repackaging the transaction as a coin issuance and transfer. Fintech regulatory frameworks are still in the early stages of development, and many jurisdictions have indicated the need to avoid discouraging innovation and entrepreneurship in designing their regulatory regimes. However, a lack of or inconsistencies in regulatory supervision may also make it more difficult for tax administrations to monitor any transactions in—or even the existence of—the underlying asset.

The requirement for the value of a digital unit of payment not to be pegged to that of any other commodity under the Australian and Singaporean approaches can therefore be rationalized as a means to counter such potential leakage and avoidance. The CJEU approach does not impose this requirement and focuses instead on the subjective intention of the parties to the transaction and whether the token was used as an alternative to currency. Although a subjective intention test allows for different relevant factors to be taken into consideration as a whole without eliminating tokens whose values are pegged to those of other assets, it could be more difficult to ascertain in practice, potentially reducing tax certainty for both taxpayers and tax administrations.

Hybridity

The fact that tokens can have more than one functional characteristic creates further classification challenges for tax and other purposes. The CJEU's objective test in *Hedqvist* addresses issues of tax leakage and avoidance by denying money-like treatment for VAT purposes to tokens that also serve any other purpose in addition to the ability to be used as a medium of exchange, that is, pure payment tokens. Under this approach, any other types of tokens will not be treated as money for VAT purposes, and their supply will generally be taxed unless they are sufficiently akin to a financial transaction benefiting from an existing exemption.

However, many tokens that have other in-built functionalities have the potential to become widely accepted as a medium of exchange and a means of payment. In this regard, Australia's incidental benefit test appears less strict than the EU approach by allowing tokens that are principally designed as payment tokens to be treated as digital currency, as long as the currency's nonpayment functionalities are incidental to its main purpose as a medium of exchange. As explained in the explanatory memorandum of the Australian amendment bill, the purpose is to ensure that "incidental features common to the functioning of many digital currencies, such as updating a distributed ledger to recognize transactions, do

not affect the status of such currencies as digital currencies.”²¹ It appears that the incidental benefit test is intended to apply strictly and would also exclude most types of hybrid tokens.

The means of payment test in Singapore’s GST legislation would be the most generous of the three approaches, without any limitation on how principal or incidental the nonpayment function of a hybrid token should be. Instead, reference is made to the ability of the token to be used as a medium of exchange and means of payment after the nonpayment benefit or entitlement has been used up. Such an approach, however, presents challenges in drawing a line between a supply of money and a supply of vouchers, where the token continues to exist as a means of payment even after the benefit or entitlement has been fully used. This could be illustrated using the facts set out in Example 2 of the IRAS e-Tax Guide:

Example. A digital payment token used to receive specified services and that can be used as a medium of exchange

StoreX is a digital token that has been designed to be the exclusive payment method for Company X’s distributed file storage network. Under the terms of issue of its initial coin offering, StoreX grants holders the permanent right to a specified amount of file storage. The token can also be used as payment for other merchant’s goods and services on Company X’s platform, even after the right to the specific amount of file storage is exercised.

StoreX will qualify as a digital payment token assuming all other conditions of a digital payment token are met.

Source: Inland Revenue Authority of Singapore (2019).

In this example, the initial issuance of StoreX by Company X is treated as a supply of money, which is out of scope for GST purposes, even though StoreX also carries file storage rights. Assuming that the tokens carry only file storage rights, they would have been treated as a product voucher, the supply of which is subject to GST at the point of the voucher’s issuance. The treatment of StoreX as money instead of as a voucher because of its payment functionality effectively results in the nontaxation of the supply of the file storage services.

²¹ Explanatory Memorandum to Treasury Laws Amendment (2017 Measures No 6) Bill 2017, 11.

III. Income Tax Treatment of Stablecoins

Income Tax and Money

A straightforward supply of money in exchange for goods or services does not constitute a separate transaction giving rise to a separate gain or loss calculation for income tax purposes, provided that the money is used as a medium of exchange and means of payment. In such a case, money supplied and received in consideration for the supply of goods or services is merely a measure of the value of those goods or services, and therefore, in normal circumstances, should not trigger any income (or capital gains) tax. In contrast, the exchange of numismatic money or money that is an investment article for other goods or services is ordinarily treated as a barter transaction. Any gains or losses for income (or capital gains) tax purposes are accordingly computed separately in respect of the disposal of the numismatic or investment article money—which is treated as a property—by a person, as well as that of the goods or services given in return by the counterparty.

However, where a taxpayer engages in transactions that are denominated in a currency different from the currency of the primary economic environment in which the taxpayer operates (that is, its functional or measurement currency of its business activity), issues arise as to the appropriate income tax treatment that should apply to any gains or losses resulting from fluctuations in foreign exchange rates—specifically, the nature of the gain or loss and the time at which the gain or loss should be recognized for tax purposes. On the nature of the gain or loss, rules typically determine if the foreign exchange gain or loss is capital or revenue in nature, which in turn depends on the purpose for which such gain or loss was incurred. As for the second issue, income tax laws often contain special timing rules related to the taxation of foreign exchange, which may require recognition of gains and losses for tax purposes even in the absence of an actual disposal or realization event. This is in contrast with the tax treatment of barter transactions, which is determined at the time of the actual disposal event. This commonly found distinction between money and property is thus critical for the income tax treatment of stablecoins.

Income Tax and Stablecoins

Although most jurisdictions currently have not adopted a clear position on the income tax treatment of stablecoins as an asset class, the vast majority effectively treat crypto assets as property even when used as a means of payment.²² The US Internal Revenue Service, for instance, treats for federal income tax purposes all crypto assets as property and so all transactions involving crypto assets are regarded as barter transactions (US Internal Revenue Service, 2014). This applies also to “virtual currencies”—digital representations of value that function as a unit of account, a store of value, and a medium of exchange—even if these virtual currencies have an equivalent value in real currency or act as a substitute for real currency (that is, convertible). Similarly, Australia does not consider crypto assets used as a means of payment to be (foreign) currencies for income tax purposes and instead treats their use to obtain goods

²² See, for instance, the overviews in the references in footnote 5. This implies that where countries impose other taxes than income taxes on holding or transferring property, such as a net wealth tax or inheritance tax, such specific taxes should normally also apply to stablecoins. However, few countries where such taxes exist have issued specific guidance on the relevant treatment of stablecoins.

or services as an income or capital gains tax event on which income or capital gains or losses are to be recognized.²³ The UK HM Revenue and Customs has stated unequivocally that it “does not consider any of the current types of cryptoassets to be money or currency” and that “any Corporation Tax legislation, which relates solely to money or currency, does not apply to exchange tokens or other types of cryptoasset” (HM Revenue and Customs 2021, para. 41050).

The treatment of stablecoins as property for income taxation purposes means that each payment made using stablecoins constitutes a realization event—resulting from a barter transaction—that triggers tax consequences. This is likely to substantially increase the tax compliance burden for taxpayers that choose to make payment using stablecoins rather than traditional currencies in the context of tax systems that generally tax capital gains. This is because income tax rules generally allow for foreign exchange gains or losses to be computed at the end of a tax period instead of on a per-transaction basis, as is typically the case for gains (or losses) arising from property transactions. In addition to increasing relative compliance burdens, this difference in treatment could also lead to different income tax burdens relative to transactions in traditional currencies. Although stablecoins are at least in theory less susceptible to price fluctuations than other crypto assets, their price stability nevertheless is tied to the value of the assets or currencies to which they are pegged. Thus, in an environment where the underlying asset or currency is weakening, the total amount of gain or loss would be smaller where accounted for at the end of the reporting period, as compared to that when accounted for on a per-transaction basis. Of course, the reverse is true where the underlying asset or currency has strengthened during a tax period, but it creates different tax consequences for taxpayers who choose to transact using stablecoins as opposed to traditional currencies.

Given the variations in the design of stablecoins—especially in the types of pegs and stabilization mechanism deployed with the goal of reducing their price volatility—one might question if, rather than monolithically treating all stablecoins as property, there is scope for a more nuanced approach to the income tax treatment of stablecoins. In the simplest case, a stablecoin could be fully backed by and redeemable against the issuer for a single traditional currency (for instance, one token for \$1), which is arguably functionally similar to electronic money²⁴ and, if such is reflected by market practice, therefore should be treated similarly for tax purposes.²⁵ Unbacked (that is, algorithmic or seigniorage) stablecoins could be argued to operate in a manner similar to traditional fiat currency, with its “monetary policy” hardwired algorithmically by way of smart contracts into the code of the blockchain on which such stablecoins are based.

Things are more complicated if the stablecoin is backed by and redeemable for assets other than traditional currencies. Stablecoins can be backed by either on-chain (that is, crypto assets) or off-chain assets (such as precious metals), or even both. On the one hand, if the activities around such a stablecoin involve its use as a means of payment, then such a stablecoin is arguably more akin in

23 See the Australian Taxation Office (2022), which was affirmed by the Administrative Appeals Tribunal of Australia (AATA) in *Seribu Pty Ltd v. Commissioner of Taxation* [2020] AATA 1840 (June 16, 2020).

24 For instance, Article 2(2) of Directive 2009/110/EC of the European Parliament and Council of September 16, 2009, defines electronic money as “electronically, including magnetically, stored monetary value as represented by a claim on the issuer which is issued on receipt of funds for the purpose of making payment transactions ... and which is accepted by a natural or legal person other than the electronic money issuer.”

25 Of course, such treatment for tax purposes should not prevent the coin from being treated differently for (other) regulatory purposes and requirements.

practice to a negotiable promissory note that is payable to its bearer on demand and would be functionally analogous to representative money, except that it is issued by private actors instead of (central banks of) sovereign states and that it is not legal tender. Despite the lack of legal tender status, the issuer of a redeemable stablecoin is still contractually bound to honor its obligation with respect to the asset to the holder of the stablecoin on redemption. Given the fiat (that is, gold standard) link between currency and gold or silver, it could be argued that few differences exist between redeemable stablecoins and currency, apart from the sovereign status of the issuer. On the other hand, one could argue that the stablecoin is an electronic representation of the underlying asset and therefore is appropriately treated as property.²⁶ Moreover, most asset-backed stablecoins in circulation maintain stability by subjecting their holders to margin calls in response to decreases in the value of the underlying asset and tend to be “overcollateralized” to ensure a timely response to such margin calls. For example, in the case of MakerDAO, a user is required to create a “collateralized debt position,” which essentially is an Ethereum-based smart contract involving the pledging of Ether as collateral to enable the user to generate Dai of up to two-thirds the value of the pledged Ether. Such arrangements do not fall neatly within traditional concepts of money because it neither arises from the fiat of the issuer nor represents a claim against the issuer for the underlying asset, which is held in escrow but remains under the ownership of the user.

Further challenges arise where stablecoins are pegged to certain currency reserves but are not directly backed by assets in those reserves. For instance, under the Diem proposal, holders of the Diem stablecoin will not be able to directly interface with the reserve but instead can only cash out their coins on the secondary market with exchanges and other institutions that are integrated with authorized resellers, from whom such exchanges or other institutions obtain liquidity. The Diem has therefore been compared by several commentators to forex-based exchange-traded funds (ETFs). Interests in ETFs might be considered as proprietary in nature and different from money.

It could be argued that any attempt to draw parallels between the different types of stablecoins by reference to specific features of their stabilizing mechanism and existing types of financial arrangements is missing the point. Although the effectiveness of the stabilizing mechanism could have an impact on the likelihood of a stablecoin being used as a medium of exchange and means of payment, it does not determine whether the stablecoin was in fact so used by the taxpayer. If something is used widely as a medium of exchange and means of payment in its primary economic environment, it should be treated for income tax purposes as money if the overarching policy objective is to ensure neutrality and to avoid tax induced distortions between objectively equivalent instruments or transactions. However, the evidential problems of a subjective approach based on how something is used can be significant and can cause tax uncertainty for both taxpayers and tax administrations—in addition to the additional compliance and administration burdens a purely subjective approach would entail. One possible administrative solution would be to create a rebuttable presumption that stablecoins, as broadly defined, are deemed to be money and to backstop the operation of such presumption through the application of general antiavoidance rules triggered when they are found to be used abusively. Any regulatory framework that

²⁶ Where a tax jurisdiction chooses to treat a stablecoin as property, care should be taken to preserve tax neutrality vis-à-vis other similar types of assets. For example, a stablecoin backed by and redeemable for certain collaterals could, depending on its design, be considered redeemable asset-backed securities on the one hand or merely a digital manifestation of the underlying asset on the other. For an in-depth discussion on the challenges in accomplishing tax neutrality for crypto assets more generally (Waerzeggers and Aw 2019, 219).

exists in respect of stablecoins could also be leveraged upon by tax administrations in determining if such rebuttable presumption should apply. That is, a stablecoin will not be treated as money if it is not regulated or supervised in the taxing jurisdiction as a deposit, e-money, or a means of payment capable of being expressed in the official monetary unit.

Consideration should also be given to international aspects of the direct taxation of transactions involving stablecoins. In particular, challenges may arise in the context where jurisdictions adopt different tax positions in relation to the classification of stablecoins. Consider an example where A in country A exchanges stablecoins with B in country B for traditional currency. Suppose that country A treats the stablecoins as property—that is, any gains on realization are subject to capital gains—whereas country B treats the transaction as a provision of exchange services. Assume further that A has sufficient nexus in country B such that the latter has taxing rights over some of the A's income arising from the transaction. This would potentially result in double taxation of A's gains arising from exchanging stablecoins with B.

Double nontaxation could equally arise from a different tax classification of stablecoin gains by jurisdictions. For instance, country A may consider the gains from the exchange of stablecoins as business profit with a sufficient nexus in country B—and therefore taxing rights rest with country B—whereas country B classifies the stablecoins as property and therefore primary taxing rights in respect of the gains belong to country A.

Moreover, for country A to properly apply and administer residence-based taxation of capital gains, proper exchange of information between country A's tax administration and the tax administration of the jurisdiction in which the issuer of the stablecoin resides would be a prerequisite, assuming that the stablecoin is not decentralized. Reliance on third-party information—which is the traditional response of the international tax system to compliance challenges—may not be feasible or effective where the stablecoin is decentralized and private peer-to-peer transactions are not recorded by centralized authorities or intermediaries. Organisation for Economic Co-operation and Development's recently released Crypto-Asset Reporting Framework (CARF) seeks to address these concerns. CARF is designed to complement and leverage off the Common Reporting Standards, the existing international standard for the automatic exchange of financial account information for tax purposes, by providing for similar exchange of information on transactions in crypto assets—including stablecoins—relying on reporting by defined crypto asset service providers (OECD 2022). Implementation of this new framework will require that new rules and procedures be put in place both at the domestic and international levels.²⁷

²⁷ The EU Commission, for instance, recently announced plans to propose amendments to Directive 2011/16/EU on the exchange of information in the field of direct taxation to crypto assets ("DAC8") with a view to providing EU tax administrations with information on taxpayers who engage in crypto asset transaction and to improve administrative cooperation in this area (European Commission 2022).

IV. Conclusion

For stablecoins to be able to fulfill their potential of becoming a convenient alternative means of payment—including cross-border payment—both taxpayers and tax administrations will need certainty and predictability about the tax treatment of transactions and activities involving stablecoins. Much can be achieved within countries' current tax law frameworks by way of clear taxpayer guidance issued by—and ideally binding on—the tax administration. However, questions still arise as to whether it is possible to provide for such guidance in a comprehensive manner, given the myriad potential economic functions of tokens. This also further increases complexity and potentially requires a more nuanced—if not case-by-case—approach in determining the appropriate tax consequences in different scenarios.

Beyond that, for stablecoins to be capable of becoming competitive with traditional currencies, substantially similar tax treatment to currencies is necessary to the extent that stablecoins are, in fact, predominantly used as a means of payment. Although there is a trend—albeit somewhat uneven in approach—for VAT and GST systems to move in that direction, this is far from the case for income tax and capital gains tax.

Finally, more international coordination and cooperation will also be needed both in relation to substantive tax treatment to avoid cross-border tax arbitrage and to tax administration and enforcement to provide tax authorities with the necessary tools to ensure compliance with domestic tax obligations. In this regard, greater consistency in regulatory treatment of stablecoins could offer a common language and reference framework to inform the discussion between tax policymakers and administrators on their tax treatment and compliance frameworks. However, without greater tax certainty and tax neutrality than what is currently available, stablecoins will not be able to properly fulfill their promise as an alternative means of payment, even if they might prove to be a more stable store of value compared to other crypto assets. Instead, gaps and mismatches in tax treatment between tax jurisdictions—including with respect to exchange of information arrangements between tax administrations—may create distortions and opportunities for abuse.

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979-8-40022-722-6