

MICA, CRYPTO-ASSETS AND EXCHANGE OF TAX INFORMATION – WHERE IS CRYPTO GOING?

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A. INTRODUCTION

As the crypto ecosystem expanded into mainstream trading and investing, the year of 2022 was a true wakeup call for policymakers and regulators worldwide. Policymakers and regulators were put in a position that they had to push towards regulation to enhance investor protection and also to develop a comprehensive, coordinated, and flexible framework for crypto-assets, without inhibiting innovation.

The year of 2023 marks the “year 1” of crypto-assets regulation, because:

1. First this is the year where the EU Markets in Crypto-Assets Regulation or MiCA is unveiled setting an unparallel EU-wide uniform code governing digital and crypto-assets.²
2. At the EU level, the next big step coming is the amendment of the Directive on Administrative Cooperation (the so-called DAC8) to extend the existing scope of automatic exchange of tax information to information on crypto-assets and e-money, which then should be followed by the transposition into domestic law by each Member State.³
3. From the side of OECD level and looking beyond the EU, the final rules and commentary of the Crypto-asset Reporting Framework (CARF) as well as enhancements to the Common Reporting Standard (CRS), with the aim to capture within exchange of information rules all transactions involving crypto-assets.⁴
4. Finally, and running in parallel with the other initiatives, there is a clear push towards but addressing anti-money laundering and terrorism financing via the Finance Action Task Force (‘FATF’) recommendations in the crypto-asset field and larger adoption of those by market participants.⁵

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² Regulation (EU) 2023/1114 on Markets in Crypto-assets ([MiCA](#)) and Regulation (EU) 2023/1113 on information accompanying transfers of funds and certain crypto-assets ([WTR2](#)), both published in the Official Journal of the European Union on 9 June 2023.

³ On 16 May 2023, the ECOFIN EU finance ministers reached political agreement on a [compromise text on the so-called DAC8](#) or Directive on administrative cooperation implementing rules on reporting for crypto-assets and amendments to the Common Reporting Standard (CRS). The Directive still needs to be formally adopted and Member States are expected to have until 31 December 2025 to transpose the main rules into domestic law with DAC8 set to apply generally as of 1 January 2026.

⁴ The [Crypto-Asset Reporting Framework \(CARF\)](#) and a set of amendments to the Common Reporting Standard (CRS), along with associated Commentaries and exchange of information frameworks (collectively referred to as the International Standards for Automatic Exchange of Information in Tax Matters), were approved by the OECD Committee on Fiscal Affairs.

⁵ [Targeted Update on Implementation of the FATF Standards](#) on Virtual Assets and Virtual Asset Service Providers, June 2023

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From those developments and the associated trends, we understand that the digital asset regulation is moving towards building an architecture or framework based on three main drivers:

- (i) Ensuring adequate protection on money flows by enlarging AML/KYC specially on on-ramps and off-ramps;
- (ii) Regulating the intermediaries between the digital-asset users and consumers by treating them as quasi-financial intermediaries (equivalent to the TradeFi space); and
- (iii) Imposing transparency requirements on investors with the objective to attribute the digital-asset ‘wallets’ to real individuals or companies for tax purposes by expanding exchange of information mechanisms and UBO registrations into the digital-asset ecosystem.

Until recently, most of international tax initiatives either did not deal or were not prepared for the sudden increase in popularity of digital assets.

We can say the international community has now become aware of the importance of digital assets, including the growing impact of crypto-assets on tax systems in terms of risks and challenges.⁶ The fact that many crypto-assets can be held and transferred under the camouflage of the so-called crypto pseudonymity has also not been entirely helpful when it comes to application of tax systems.

The challenge today, in the wake of this digital transformation, is to reduce the knowledge gap on this very diverse ecosystem by equipping advisors, taxpayers and tax authorities with the relevant knowledge about what this wake of regulation also means for taxation in this space. Due to its novel elements and rapidly evolving area, advising on tax aspects of digital assets requires deep knowledge of the nature of crypto-assets and key types of transactions to be able to apply to these type of assets the fundamental tax concepts of tax law.

The aim of this article is to contribute to this discussion by focusing on some interaction points and what it means the roll-out of exchange of information.

B. DIGITAL ASSETS AND TAX

The potential scope of digital assets is limitless because it is essentially technologically driven. This naturally creates challenges and the lack of consensus on what precisely means crypto-assets as a subset of digital assets is one of the starting points.

In the early days the tendency was to have a perspective that digital assets were merely cryptocurrencies.⁷ The means of payment factor criteria or argument was prevalent and for tax purposes that meant associating these types of assets as akin to currency mechanisms or payments.

The ecosystem has since then evolved and use cases have multiplied. Digital assets categorization are not yet in agreed international form and recent developments such as in the space of DeFi or NFTs have demonstrated that they may rapidly develop in time and should not be “set in stone”. In addition, if we go back in time on the early efforts of setting a taxonomy, we reach the conclusion that the

⁶ See [Taxing cryptocurrencies](#), IMF Publication, Katherine Baer ; Ruud A. de Mooij ; Shafik Hebous, Michael Keen, July 2023 and [Report on the Challenges which Digital Assets Pose for Tax Systems with a Special Focus on Developing Countries](#), Vincent Ooi, March 2023.

⁷ The evolution of crypto-assets may be traced to the white paper [titled Bitcoin: A Peer-to-Peer Electronic Cash System](#) of 31 October 2008 by Satoshi Nakamoto.

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classification into payment tokens, utility tokens, asset tokens or security tokens was mainly developed for purpose of financial regulation and not entirely for tax purposes.⁸

Today there is no agreed taxonomy, but for the purposes of this article we follow the IMF categorization based on used taxonomies and grouping risks:

1. **Unbacked crypto-assets.** These crypto-assets are transferable, primarily designed to be used as a medium of exchange, and although they are often decentralized, there are examples of unbacked crypto-assets that are centrally issued and controlled. Most unbacked crypto-assets are currently used for speculation and not for payment purposes. Prominent examples include Bitcoin and Ether.
2. **Utility tokens.** These tokens provide the token holder with access to an existing or prospective product or service. These are usually limited to a single network (that is, the issuer) or a closed network linked to the issuer. For example, a tokenized store card or certain gaming tokens might be considered types of utility tokens.
3. **Security tokens.** Although the definition of a security token varies across jurisdictions, these are tokens that provide the holder with rights like that of a traditional security, for example, the right to a share in the profits of the issuer.
4. **Stablecoins.** This type of crypto asset aims to have a stable price value. This objective is normally pursued by the crypto asset being linked to a single asset or a basket of assets, for example, fiat funds, commodities such as gold, or other crypto-assets. Prominent examples include Tether, Binance USD, and USD Coin.
5. **Central Bank Digital Currencies (CBDCs).** This type of crypto-asset are government-issued digital currencies that are not backed by physical commodities such as gold or silver.
6. **Non-Fungible Token ('NFT').** This is special type of digital asset that can be proved to be unique and not interchangeable with another digital asset token (i.e. non-fungible). NFTs are created in accordance with certain frameworks or standards and deployed on DLT. NFTs generally represent digital files such as digital artworks, photos, videos, and audio, with their main feature being their uniqueness and nonfungibility (based on their programming, the limited copies of a digital artwork created etc).

But again this is far from a closed circuit and linear categorization. We see public attempts, namely by US Securities Exchange Commission, to consider that certain tokens were made to circumvent existing regulatory frameworks by claiming that the “things being marketed” were not securities, but they should be regulated as 'securities' under the existing regulatory frameworks.⁹

More regulation on the field is also bound to bringing new forms of classification of digital assets specially those being developed within the decentralized finance ('DeFi') space like liquidity pool tokens or in the NFT sub-space such as fractional NFTs, or income-driven tokens.

⁸ For example it was the Swiss Financial Market Supervisory Authority (FINMA) one of the first adopters of a [classification based on their objective economic substance](#) as payment, utility and security, with only security tokens being subjected to securities regulation.

⁹ An example is the recent [SEC charges](#) against Coinbase for operating as an unregistered securities exchange, broker, and clearing agency, June 2023.

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The tax treatment of crypto-assets naturally varies from jurisdiction to jurisdiction and the objective is not to provide an outline of the different approaches.¹⁰ What we may try is to identify some key points in developed tax systems that integrate these kinds of digital assets within the tax net.

- Since most tax laws the concept of income is very well developed (either in law or in case-law) and in many instances a schedular or categorization type of system is in place to identify the nature of income, the question will be how each of the main stages of a life-cycle of digital assets will be framed and taxed accordingly.
- Since most tax laws focus on identifying the circumstances surrounding the taxable event and only secondarily the nature of the asset in question, questions are raised if the underlying tax treatment of crypto-asset transactions is sufficiently developed to capture different nuances of digital assets. For example, was it acquired as investment, should it be taxed as property, should it be taxed as currency or when it should be disregarded as an actual digital asset.
- Since most tax laws give different tax treatment to taxable events that produce similar results either because there are certain preferences or tax incentives in place or reasons of administration or compliance to treat such assets differently, the question will be to identify if there is different tax treatment across various classes or types of digital assets.
- Since most tax laws distinguish between domestic and foreign income either for taxing purposes or for administrative purposes such as withholding taxes, credit or exemption systems or tainted sources of income, the question will be to identify how digital assets will be framed within the tax system as regards concepts such as source, payer or withholding agent.

The key aspect when analysing any tax regime is the integration within such tax principles of all the potential variations arising from the very idiosyncratic life-cycle of crypto-assets, which could be summarized in 3 main phases.

1. **Creation:** Creation events may be generally divided into situations where tokens are created and issued in a centralised or decentralised manner. In cases of mining and forging, a decentralised algorithm awards tokens to miners or forgers who perform certain tasks via distributed ledger protocols. Miners and forgers are compensated for their efforts by being issued fresh tokens by the system. Issue and purchase are the straightforward processes of creating tokens and selling them to purchasers. Airdrops on the other hand are distributions of tokens, usually for free or minimal consideration, generally undertaken as marketing tools with a view to increase awareness of a new token and increase liquidity of early stage projects. Forks involve the creation of a new spin-off token, where owners of the old token are typically issued with a corresponding number of new forked tokens. The creation of tokens may constitute a taxable event for tax purposes.
2. **Exchange or Transfer:** Digital assets are often exchanged for real world goods and services, with a notable use being the payment of salaries or services in crypto-assets in some cases. They are widely exchanged for other crypto-assets (via swaps and other formats) or for fiat currency under off-ramp protocols. In the sphere of exchanging crypto-assets, there is a myriad of processes such as token swaps, atomic swaps and token migration that enable the exchange of one token for

¹⁰ For an international overview, see Taxation of Crypto Assets, Niklas Schmidt, Jack Bernstein, Stefan Richter, Lisa Zarlenga, 2020.

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another. In most jurisdictions, an exchange or transfer would constitute a realization event for tax purposes.

3. **Total Loss, Redemption or Termination:** With the rapid evolving ecosystem, it is also possible to see situations that are akin to total loss, redemptions or termination of crypto-assets. The redemption transaction where an investor disposes of wrapped token and regains the original (unwrapped crypto-assets). Another example is the process of token burning where issuers may permanently take the tokens out circulation. Publicly traded companies also buy back stock to reduce the number of shares in circulation and therefore tax consequences may also arise from such events. These issues also are closely linked with when (and if) digital asset losses should be recognized by taxpayers.¹¹

Ultimately the fact that crypto-assets are often said to be without a source or jurisdiction of origin is not helpful to frame them within the existing tax principles. In addition, if legal principles indicate that the location typically follow the person with custody or control over the asset, in the crypto-sphere the existence of self-hosted and decentralized exchanges (DEXs) further emphasises the need for rethinking of the existing principles.

C. WHAT MAKES DIGITAL ASSETS DIFFERENT FOR TAX PURPOSES

In the original Bitcoin paper, Satoshi Nakamoto defined Bitcoin as a “chain of digital signatures”.¹² This digital record is essentially designed to prevent transactions from being forged/denied, carry information about previous transactions relating to such asset, the digital identity of the present owner and a cryptographic lock that ensures that only the actual owner who holds the matching key may spend/transfer/exchange such token. To transfer or exchange such token, the owner will have to use a private key that is associated with those tokens to make changes to the digital ledger (DLT).¹³

Cryptography makes it possible that transactions in crypto are pseudonymous in the sense that each individual in a specific network has pairs of digital keys, one public and one private. These public and private keys constitute the vital elements of so-called pseudo-anonymity of digital assets. Because of the DLT features, anyone can check the public keys of both the sender and the recipient to check the chain of ownership, but not their private keys.

DLT-based transactions in a public permissionless network are by their very nature transparent and thus traceable. Traceability may or may not lead to identification of the person or entity behind the

¹¹ There are several practical situations when a digital asset becomes worthless namely when there is theft of digital assets held for investment, when there is a termination of a particular digital asset or the inability to access crypto-assets due to bankruptcy of CEX.

¹² See Deng, W.; Huang, T.; Wang, H. A Review of the Key Technology in a Blockchain Building Decentralized Trust Platform, 2022.

¹³ See Blockchain Land Transfers: Technology, Promises, and Perils (2022) 45 (105672) Computer Law & Security Review 1-13 SMU Centre for AI & Data Governance Research Paper 04/2022, Singapore Management University School of Law Research Paper.

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transaction. However, using blockchain forensics for tracing various transactions, it is possible to gather evidence of identity, leading to identification of the “who”.¹⁴

Bitcoin and Ethereum, the largest crypto-assets by TVL (total-value locked) and capitalization, work on pseudonymous systems. This simply means that the user’s identity remains unknown, and the activity associated with their wallet takes the form of a cryptographic address. But it has become apparent in recent years that crypto addresses cannot remain fully anonymous, either because they engage in goods or services transactions or because they need to engage in KYC/AML checks.¹⁵

This is where exchange of tax information on crypto-assets will have a critical regulatory role. The open question is if tax law and taxation of crypto-asset transactions is implemented in a way to secure the disclosure necessary to identify and regulate transactions in the digital ecosystem, and at the same time, not curtail the development and innovation of this new field.

In Portugal for example we experienced until 2022 the clear impact of how a lack of regulatory guidance poses a challenge for tax law as it demonstrated that if there is no regulatory policy and concept aligned with the definition in tax law, the crypto-assets are bound to fall within a vacuum of taxation. Hence why taxation also serves an important regulatory tool, either by closing the gaps in the system that allow for income to be untaxed and also help regulate behaviour and raise revenue.

The truth is that no business should flourish based on the principle that pseudo-anonymity will result in income from crypto-assets being untaxed.

The focus should be in developing the technology, enlarging its adoption and use and not promote tax arbitrage. Naturally, there is still space for preferential tax treatments in digital assets but that will depend on policy goals specific to a jurisdiction.

From a tax perspective, tax compliance is largely reliant on self-declaration and automatic exchange of information mechanism merely serve as deterrent for non-disclosure. In crypto-assets this is inverted. The emergence of exchange of information in the crypto-asset sphere is clearly designed to provide the regulatory coverage and boost designed to help in setting a level playing-field that taxes should have in economic development.

As noted, several global initiatives are now underway to extend the current international exchange of information framework to crypto-assets as well, placing the burden on intermediaries who assist with crypto transactions to conduct “know your client” checks and collect information on the ultimate beneficial owners behind crypto wallets. However, the inherent pseudonymity of crypto-assets means that there will inevitably be gaps in the information gathered, since not all users will go through regulated intermediaries.

¹⁴ The wallets which store private keys (and thus, control over tokens) are unique and identifiable. It is public information what transactions a particular wallet is involved in and it is also possible to trace the flow of tokens (i.e. the changes in ownership) from wallet to wallet.

¹⁵ For example for Ethereum blockchain, it is relatively straightforward to trace transactions through tools such as Etherscan but layer two solutions may not necessarily provide the same level of transparency and the emergence of zero-knowledge technologies may make traceability more difficult.

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D. EXCHANGE OF INFORMATION REVOLUTION ARRIVES TO CRYPTO-ASSETS

Within the current framework, crypto-assets are still excluded from information exchange. This means that if a taxpayer holds or transacts in crypto-assets, the party that has these customers is currently not obliged to declare related information on crypto-assets to EU tax authorities.

This will change soon as at a global and EU level there is a strong architecture of agreements for exchange of information and administrative cooperation already in place that will further develop to encompass digital assets. Table 1 outlines the players of this push towards tax transparency.

Table 1 - The Players
<p>OECD - In the field of international taxation of income, the lead role is taken by the Organisation for Economic Co-operation and Development (OECD). OECD members typically use the tax treaties based on the OECD Model Convention on Income and Capital. Article 26 of this model convention provides for exchange of information foreseeably relevant for carrying out the provisions of the convention. The contracting states can also exchange information based on this provision for the enforcement of domestic laws concerning taxes of every kind and description imposed on behalf of the contracting states or their political subdivisions or local authorities insofar as the taxation thereunder is not contrary to the Convention. The Convention on mutual administrative assistance in tax matters also provides a regulatory framework for administrative cooperation such as exchange of information, simultaneous audits and presence of foreign tax officials during audits. On 21 December 2022, 146 countries signed this convention. Countries may also individually engage in tax information exchange agreements, for example based on the Model Agreement of Exchange of Information on Tax Matters.</p>
<p>EU - On an EU level, Directive 2011/16/EU provides for a legal framework for administrative cooperation which includes a wide range of automatic exchange of information covering several types of income streams. Pursuant to Article 2 (2) of this Directive, VAT, customs duties and excise duties are beyond the scope of this directive because they are covered by other legal instruments. Directive 2011/16/EU has been amended several times, where the latest trend is transparency and the provision of information to the tax authorities. Under DAC 6, mandatory disclosure of cross-border tax arrangements has been implemented. Under DAC 7, platforms are required to obtain, review and provide information about themselves and platform sellers operating on the platform to the tax authorities. The European Commission proposed text amending Directive 2011/16/EU (DAC8) is intended to cover the reporting and automatic exchange of information in required for direct taxation purposes. The information can also be used for VAT. In the field of indirect taxes several Regulations deal with the exchange of information and administrative cooperation between EU Member States.</p>

With the roll-out of the ongoing initiatives, digital asset operators will become responsible for collecting, validating and reporting information related to crypto-assets and their users and this will be a true revolution the industry and investors need to be prepared.

This exchange of information architecture is built on a two-step approach: (i) service providers reporting specified crypto-related transactions of their users to tax authorities, and (ii) the (cross-border) exchange of this reported information between tax authorities of different Member States.

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For purposes of the OECD, EU and Portuguese domestic law, it is first relevant to understand which are the crypto-assets in scope or covered by the exchange of information. Table II outlines the differences and similarities on the crypto-assets in scope between DAC8, OECD CRS and Portuguese domestic legislation.

Table 2 - Crypto-Assets in Scope		
EU MiCA (and DAC8)	OECD CRS	Portuguese Domestic Law
The MiCA defines a “crypto-asset” as “a digital representation of a value or a right which may be transferred and stored electronically, using distributed ledger technology or similar technology”. ¹⁶	Under the CARF, the term “Crypto-Asset” means a digital representation of value that relies on a cryptographically secured distributed ledger or a similar technology to validate and secure transactions. ¹⁷	For Portuguese tax purposes, crypto-assets means “a digital representation of value or rights which may be transferred and stored electronically, using distributed ledger technology (DLT) or similar technology”.
<p>MiCA establishes three distinct categories of crypto-assets, namely:</p> <ol style="list-style-type: none"> 1. Asset-Referenced Tokens (ARTs): tokens that aim to maintain a stable value by referencing (i) several currencies that are legal tender; (ii) one or several commodities; (iii) one or several crypto-assets; or (iv) a basket of such assets; 2. E-Money Tokens (EMTs): tokens that are intended primarily as a means of payment that aim to stabilise their value by referencing only one fiat currency; and 3. Crypto-assets other than ARTs and EMTs, such as utility tokens which as a subset of crypto-assets intended to provide digital access to a good or service, 	<p>The definition of Relevant Crypto-Assets in CARF means that in most cases Relevant Crypto-Assets covered under the CARF also fall within the scope of the FATF Recommendations, ensuring the due diligence requirements can, as far as possible, build on existing AML/KYC obligations.</p> <p>2021 FATF Guidance includes clarification of the definitions of virtual assets. For FATF, virtual assets must be digital and must themselves be digitally traded or transferred and be capable of being used for payment or investment purposes. Relevant crypto-assets in scope of the CARF therefore include native crypto-assets, such as</p> <ul style="list-style-type: none"> ▪ mined cryptocurrencies 	<p>Because of the reference to the MiCa definition it is the understanding that Portuguese domestic law will be based on this EU Regulation, that covers three types of crypto-assets, namely asset-referenced tokens (ART), electronic money tokens (EMT), and other crypto-assets not covered by existing EU law.</p>

¹⁶ Under Article 3(2) of MiCA the EU Commission is given power to introduce secondary legislation to “specify technical elements of the definitions (...) and to adjust those definitions to market developments and technical developments”. Recital 16 also indicates that the definition of crypto-assets will be interpreted “as widely as possible to capture all types of crypto-assets which currently fall outside the scope of [European] Union legislation on financial services”.

¹⁷ The definition mentions also “similar technologies”, thus ensuring the inclusion of technologies that may emerge in the future. The definition used by the CARF is aligned with the definition of “Virtual Assets” given by the Financial Action Task Force (FATF).

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<p>available on distributed ledger technology, and accepted only by the issuer of that token.</p>	<ul style="list-style-type: none"> ▪ fungible tokens (such as utility tokens, stablecoins and security tokens) and ▪ most non-fungible tokens. 	
<p>MiCA does not apply to crypto-assets that qualify as “financial instruments” as defined in the second Markets in Financial Instruments Directive (MiFID II), deposits (including structured deposits), funds including e-money (unless they qualify as EMTs), securitisation transactions, and various insurance and pension products regulated under existing EU financial services legislation. Those are also covered by special DAC exchange of information rules.</p> <p>Utility tokens may be excluded when: (i) solely accepted by the issuer; or (ii) issued with non-financial purposes to digitally provide access to applications, services or resources available “closed-loop systems”; or (iii) not traded in a publicly available market or do not require intervention by CASP.¹⁸</p> <p>Some non-fungible tokens (NFTs), and crypto-asset services provided in a fully decentralised manner without any intermediary (i.e. DeFi), are also not in scope.</p>	<p>CARF does not apply to a Central Bank Digital Currency, a Specified Electronic Money Product or any Crypto-Asset for which the Reporting Crypto-Asset Service Provider has adequately determined that it cannot be used for payment or investment purposes.</p> <p>Crypto-Assets that represent Financial Assets are covered. In choosing the terms “traded” and “transferred” the FATF intentionally created a broad, general definition of digital asset, which covers a wide range of activities. This could include, for example, the issuance of an asset to another person, exchanging it for something else, transferring it to someone else or on behalf of someone else, changing its ownership, or destroying it.</p> <p>NFTs that are traded on a marketplace can be used for payment or investment purposes and are therefore to be considered in scope Crypto-Assets. Crypto-Assets operating in a limited fixed network or environment beyond which the Crypto-Assets cannot be transferred or exchanged in a secondary market outside of the</p>	<p>In Portugal, we do not tax the crypto-to-crypto transactions. Direct exchange of crypto-assets for another crypto-asset is a taxable event but does not lead to taxable income. For short-term exchanges (crypto-assets held for less than 365 days are exchanged), the holding period is reset and the acquisition costs of the “new” crypto-asset is the same as the acquisition costs of the “old” crypto-asset. If eventually taxable income in connection with “new” crypto-asset is later realised, the original acquisition costs of the first crypto-asset in a sequence of non-taxable exchanges is relevant for calculating the taxable gain. For long-term exchanges (crypto-assets held for more than 365 days are exchanged), both the holding period and acquisition cost are reset, meaning any gains or losses are considered to be realised but exempt.</p> <p>NFTs are also excluded from income tax, namely the “true” NFTs or the NFTs that cannot be replicated or forged. This should not be the case for fractionalized NFT (known as F-NFT) as then the NFT has been divided into</p>

¹⁸ See European Commission Impact Assessment Report: Initiative to strengthen existing rules and expand the exchange of information framework in the field of taxation so as to include crypto-assets, SWD(2022) 401 final.

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	closed-loop will generally fall outside. ¹⁹	smaller pieces and sold separately. It remains unclear the outcome for the issuance of NFTs in a large series or collections (as it may be an indicator of fungibility). For other taxes NFTs are covered.
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With such a wide and unclear set of “in-scope crypto-assets”, the emphasis will be more on who passes the information – the so-called “Reporting Crypto-Asset Service Provider”.

Within DAC8 this is any legal person or undertaking whose occupation or business is the provision of one or more crypto-asset services in scope (e.g., exchanging fiat to crypto-assets) to third parties on a professional basis, and who is authorized in a member state to provide these crypto-asset services in accordance with MiCA.²⁰ The worlds of regulatory and tax are hence intertwined.

One of the main differences between the DAC8 and the OECD's CARF is that operators of crypto-asset services active in the EU must be regulated by MiCA to be in scope of DAC8.²¹

DAC8 also covers the so-called Crypto-Asset Operators (“CAO”), meaning (i) operators providing Crypto-Asset Services not regulated under MiCA (e.g., services relating to non-fungible tokens, as well as staking and lending), and (ii) operators which are not MiCA-licensed and are serving EU customers on a reverse solicitation basis.²² This extra-territorial application is another game-changer for tax purposes.

The Reporting Crypto-Asset Service Provider must then report on a three-step approach applied on individuals or entities carrying out reportable transactions.

In practice, the first step is to collect and verify the information in line with due diligence procedures on crypto-asset users resident in a EU member state that are not excluded persons.²³ The following information will be exchanged:

- Legal name, Legal address;
- Member state of residency;

¹⁹ The definition of CASPs is aligned with the definition of “Virtual Assets Service Providers” as provided by the FATF. Like any financial institution under CRS, these actors need to collect and review the documentation related to CRS due diligence and reporting from their customers. Therefore, the requirements applicable to CASPs are very similar to the framework established by the CRS.

²⁰ This means any CASP that conducts one or more Crypto-Asset Services effectuating Exchange Transactions for or on behalf of a Reportable Users (i.e Buy/Sell or Trading and not issuance or portfolio management).

²¹ Like DAC7, DAC8 also contains a switch-off mechanism for Reporting Crypto-Asset Service Providers that have already declared reportable transactions in their non-EU jurisdiction, under the condition that the respective third-party jurisdiction is recognized and has implemented and enforces CARF (or equivalent) legislation.

²² CAOs will be required for a single registration with a Member State of their choice (where also reporting takes place).

²³ These excluded persons may include: (i) stock-listed entities and entities of that group (related entities); (ii) governmental entities; (iii) international organizations; (iv) central banks; (iv) financial institutions other than crypto investment entities.

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- Tax Identification Number; and
- Place of birth (in case of an individual).

The second step will involve the Reporting Crypto-Asset Service Providers submitting the required information to the relevant competent authority in their own jurisdiction, focusing in four types of (domestic and cross-border) transactions by users:

- (i) Exchanges between reportable crypto-assets and fiat (i.e., Buy/Sell);
- (ii) Exchanges between one or more reportable crypto-assets (i.e., Trading);
- (iii) Transfers of reportable crypto-assets (i.e., transactions leaving a platform, for example to a cold wallet)²⁴; and
- (iv) High-value retail payment transactions (i.e., transfers for goods or services for a value exceeding USD 50.000 or the equivalent amount in any other currency).

Under that second step, the Reporting Crypto-Asset Service Providers will report annually on an aggregate basis by type of crypto-asset and segregating crypto-to-crypto and crypto-to-fiat transactions and outward and inward transactions. This reported information covers:

- The full name of the type of asset;
- Gross amount paid and received;
- The fair market value; and
- The number of units of the transactions.

The final and third step is the actual exchange of information of the reported information to the competent authority of another relevant member state where the user is tax resident. This is undertaken by the tax authority. Scheduled to initiate as from 1 January 2027, reporting takes place by means of automatic exchange within 9 months following the end of the calendar year via the EU common communication network based on an XML schema already in place in the framework of DAC.²⁵

E. UNCLEAR POINTS: THE CASE OF THE NFTS

There is still a degree of uncertainty when it comes to MiCa regulation and exchange of tax information and NFTs.

When MiCA excluded NFTs from its scope, possibly due to valuation and other difficulties, it also emphasized the unique and not fungible features of those crypto-assets that provide utility function.

In terms of DAC8 or CARF and regardless of whether the NFT is marketed or labelled as a collectible, it will be left to the reporting entities to assess the nature and commonly accepted usage of such NFT and if it is traded on a marketplace for payment or investment purposes. For example, the

²⁴ This includes transfer of reportable crypto-assets to wallets managed by a different CASP/CAO or by the reportable user itself.

²⁵ In terms of penalties, DAC8 lays down a few ground rules that the member states should commit to, when laying down their own rules. For example, in case of non-compliance with national provisions adopted to comply with DAC8, the minimum pecuniary penalty shall be not less than EUR 50,000 (scaled on the annual turnover of the relevant taxpayer, for example this minimum penalty increases to EUR 150,000 when revenue exceeds EUR 6 million).

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Commentary to the OECD CARF assumes that *“NFTs that are traded on a marketplace can be used for payment or investment purposes and are therefore to be considered Relevant Crypto-Assets”*.

When MiCa refers that fractional parts of a unique and non-fungible crypto-asset should not be considered unique and not fungible it is also addressing this chameleonic feature of NFTs.

One could argue that an NFT in itself being a non-fungible token on the blockchain, which typically takes the form of an image or other media should have a different and clearer regime. The mere fact that a digital item may be minted, exchanged or transferred using a Web3 marketplace or blockchain node should not in itself determine if the asset is used for investment or payment purposes. There should be limits to the analogy with financial instruments when it comes to digital art and NFTs.

The market for collectibles and digital art is expanding rapidly with the emergence of the blockchain phenomenon and tax should not be driven by if a particular asset is used speculatively to determine if the rules on exchange of information should apply or not. Ultimately web2 platforms such as e-bay have demonstrated that almost every object may have a financial or barter use, and this may not be used as justifying the wider scope.

If the intention is to catch within regulation the tokenization of real world assets via NFTs the regulation (and tax) should be more precise. One would understand that the rules should be perhaps different for fractional NFTs (F-NFTs), that represent ownership of assets such as art, music, or videos, but as the name suggests, the ownership is fractionalized or shared and which each token representing a share of ownership.²⁶ In those cases, either the fungibility criteria is present or the nature of security may be more prevalent.²⁷

From a Portuguese standpoint, the exchange of information may then apply to an item of income excluded from taxation, as NFTs are excluded from the definition of crypto-assets for income tax purposes. Naturally, there may be always a discussion of a particular asset is non-fungible, which could eventually be the case for fractionalized NFT (known as F-NFT).

Bottom line, individuals already have uncertainty about crypto-asset reporting and if policy should consider if this should extend to NFT tax reporting also, hence the importance of a dividing line.

F. UNCLEAR POINTS: THE CASE OF STABLECOINS

Another point of potential clarification in the future may be the area of stablecoins as crypto-assets for exchange of tax information.

Under MiCA, stablecoin issuers will be subject to additional regulatory requirements. Stablecoins are designed to function as digital representations of fiat currencies. Contrary to CBDCs, stablecoins are representations of fiat currency issued by private-sector institutions (not a central bank) and its circulation is growing rapidly, primarily as a settlement currency for trading in cryptocurrencies. Stablecoins are used by investors, especially in decentralized finance (DeFi), to undertake transactions and also earn a passive yield on their assets.

²⁶ CryptoPunk #543, OTIS, <https://www.withotis.com/drop/crptopunk-543>

²⁷ Brian Elzweig & Lawrence J. Trautman, [When Does a Non-Fungible Token \(NFT\) Become a Security?](#), 39 GA. ST. U. L. REV. 295 (2023).

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There are different types of stablecoins:

- Fiat/commodity-collateralised stablecoins: These rely on a currency reserve, such as the U.S. dollar or the Euro, or a commodity reserve, such as gold or oil, as collateral e.g., Tether or USDC.
- Crypto-collateralised stablecoins: These are backed by other cryptocurrencies, e.g., Dai.
- Non-collateralised stablecoins: These do not use a reserve, but include a mechanism for retaining a stable price (algorithmic stablecoins such as USDD).

A stablecoin therefore constitutes either (i) cryptoassets that are not an e-money token, that purports to maintain a stable value by referencing to any other value or right or a combination thereof, including official currencies (like an asset referenced token) or (ii) a cryptoassets that purport to maintain a stable value by referencing to the value of one official currency (an e-money token).

The regulatory differentiation of stablecoins and potential treatment as e-money may be driven to cover some of the risks associated with stablecoins or entities active on these arrangements, but this may well spillover also to their tax treatment.²⁸

The treatment of stablecoins across jurisdictions continues to evolve. For example, some countries such as Japan, have determined that stablecoins are not crypto-assets per-se. Others do not make such distinction and treat those as equivalents to any other crypto-assets. Stablecoins are a crypto-assets under MiCa, DAC8 and also Portuguese tax legislation.

One could possibly argue that a low volatility cryptoassets should be treated as a currency equivalent but at this stage the market has proven some degree of volatility or even failure of stablecoins. We likely are not there yet to open this discussion and the bridge function remains critical.

Going forward, perhaps it is the development of sovereign crypto-assets stablecoins (CBDCs) that poses the biggest challenges to taxation of stablecoins because those could be clearly regarded as fiat currencies either because they serve as legal tender or become customarily accepted as a medium of exchange.²⁹

G. UNCLEAR POINTS: THE CASE OF DEFI

The MiCa may set the framework for EU regulation, but questions also arise if this regulation should serve as the archway for exchange of tax information in what concerns DeFi ecosystem.

DeFi is a collective term for a set of applications that seek to provide a range of financial services with the aim of reducing reliance on centralised financial intermediaries.³⁰ These alternative financial applications are built on distributed ledger technology, generally with the following key features:

²⁸ Under MiCa, the issuer of e-money tokens or crypto-asset service providers shall not grant interest or any other benefit related to the length of time during which a holder of e-money tokens holds such e-money tokens.

²⁹ See Ted R. Stotzer, "Are Central Bank Cryptocurrencies Currency for U.S. Tax Purposes?," 165 Tax Notes Federal 223 (Oct. 14, 2019).

³⁰ At present, DeFi provides financial services to cryptoassets investors and its size has grown very rapidly with an aggregate amount that DeFi applications based on volume or "total value locked" reaching \$80 billion.

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1. DeFi applications purport to have a decentralised ownership and governance structure. They usually rely on voting by holders of governance tokens to make decisions with the intention of decentralising decision-making (for example, on alterations to the computer code, or changes to the governance structure).³¹
2. DeFi applications operate through rules encoded in programs (or smart contracts) that execute the terms and conditions of a transaction in an automated manner. DeFi generally relies on “open source” technology operated via DApps where anyone can read the underlying source code that operates the applications and performs financial activities.³²
3. Anyone can use DeFi applications, usually anonymously (or pseudonymously) and with minimal customer due diligence, as long as they can fulfil the application’s technical requirements for participation (for example, ownership of cryptoassets wallet). The range of DeFi applications is very wide and growing fast by bring the complexity of TradFi into DeFi.³³

Decentralised exchanges ultimately facilitate transactions, without the need for a centralised intermediary and by in most instances will be remunerating users for contributing crypto-assets into a liquidity pool or allocate investor funds based on risk preferences and returns. But DeFi is still at an early stage of its development but is also evolving rapidly.

³¹ A DAO is organized like a DeFi protocol in the sense that it can also be considered as decentralised, its rules are listed on the blockchain and its members are spread over the network and participate individually to the governance of the protocols, without an entity allowing centralized management. The vote of members is thus carried out directly on-chain, which guarantees the immutability and transparency of the voting process. The results of the vote are recorded on the blockchain and are publicly accessible for allow everyone in the organization to check them. In the specific case of DeFi exchange protocols, governance tokens can also be paid to liquidity providers, serving as remuneration and thus encouraging users to deposit their crypto-assets in cash reserves.

³² Decentralized applications (DApps) are software applications that provide an interface for users to have access to the functionalities of smart contracts directly above the protocol layer blockchain.

³³ A large number of DeFi applications are decentralized exchange protocols (Decentralized Exchanges or DEXs), automated market makers (Automated Market Makers or AMMs). AMMs and DEXs aim to provide activity similar to that of centralized trading platforms, bringing together buying and selling interests, allowing users to exchange their assets at defined quantities and prices. In addition, we have DeFi Loan/borrowing protocols that offer crypto-asset lending and borrowing activities, allowing depositors to deposit their crypto-assets in exchange for obtaining a loan of another crypto-assets, usually in the form of stablecoin tokens (or stablecoins). There are also DeFi protocols of staking and or liquid staking allow users to deposit their assets in exchange remuneration (for example in the form of interest). More recently, we see the emergence of Defi predictive market protocols that a tool allowing users to subscribe to a contract providing opportunities for return on investment based on the results of future events. There are also DeFi protocols allow the negotiation of derived products or synthetics, whose price is determined by reference to the value of an underlying asset, particularly used as perpetual futures. DeFi insurance protocols aim to share risks from smart contract failure and DeFi crowdfunding protocols opt for a decentralised form of governance and are hosted on a blockchain as means of greater transparency.

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Consequently, the establishment of a regulatory and tax framework should be carried out in a progressive and proportionate manner, taking into account, on the one hand, the innovations brought about by DeFi activities and their method of organization and risks incurred by its users.³⁴

According to recital 22 of the MiCA, crypto-asset services are not covered by the scope of the MiCAR if a "*part of such activities or services is performed in a decentralised manner*". This means: "*Where crypto-asset services are provided in a fully decentralised manner without any intermediary, they should not fall within the scope of the MiCA*".

In the same way that DeFi market player should not expect that they fall outright outside of the regulatory umbrella, from a tax perspective the scope of crypto-assets and Reporting Crypto-Asset Service Provider seems much broader and without a clear carve-out for DeFi.

It can even be argued that DAC8 goes beyond the MiCa definition by adding staking and lending within the transactions covered and this may indicate the intention to enclose DeFi applications within the tax net. The same may be said for the so-called governance tokens that allow token holders to put forth proposals that could influence the DEX platform features.³⁵

DAC8 and CARF guidelines as they stand today may well have the effect of burdening token holders with the same onerous and costly reporting requirements placed on larger centralized exchanges. This needs also to be clarified for the benefit of the expected transformational effect of DeFi.

H. CONCLUSIONS

DAC8 and CARF represent a fundamental change or revolution in crypto-tax reporting and an important step towards the regulation (from tax side) of the ecosystem. Exchange of (tax) information is a transnational event impacting the crypto-assets, as a whole that is bound to reduce fragmentation and set an initial (international) level playing field.

An open question is if MiCa and further regulatory initiatives in the tax field will represent a high barrier of entry into the European market. We identified some areas where interaction of MiCa, DAC8 rules and CARF may raise concerns and lead to inconsistent application of which crypto-assets are covered. This may affect NFTs, Stablecoins and DeFi applications and tokens. We should also try to avoid the over-reporting that happened in the transition to CRS with financial instruments.

In the next years, EU Member States are expected to continue to push for further crypto regulation with some countries pushing more for a good tax environment and governance to develop local ecosystem in the framework of their own decision-making power in tax-related matters.

As regards the 2023 Portuguese new framework for taxing Crypto-assets it is worth noting that they have focused on being administrable by recognizing tax neutrality for crypto-to-crypto exchanges. This has been a very positive measure. Because of that administrative difficulty and volatility on this type

³⁴ For the risk aspects, see recent reports of French ACPR - ["Decentralized" or "disintermediated" finance: what regulatory response?](#) (April 2023) IOSCO [Decentralized Finance Report](#) (March 2022) and FSB - [The Financial Stability Risks of Decentralized Finance](#) (February 2023).

³⁵ While governance tokens are specifically issued to enable their use in a DAO, they can also be freely exchanged on the DeFi or CeFi exchange protocols possibly giving them similar feature to other crypto-assets. Examples are Sushiswap and Uniswap governance tokens.

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of crypto-assets, the fact that crypto is then taxed only when it is exchanged for real-world fiat money or goods and services allows crypto to be treated as like-kind exchange when swapped with other crypto without generating a taxable event. When crypto is used to acquire fiat currency or goods and services (including NFTs), it is taxed because at that point value is deemed realized. This diversity of tax treatment also raises important challenges because cross-border exchange of information will focus on reporting all in-scope transactions without distinction between crypto-to-crypto and crypto-to-fiat transactions.

The revolution is underway but the “shades of gray” are bound to remain.

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