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Crypto-assets & Tax Transparency: the OECD Crypto-Asset Reporting Framework

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I hereby declare that the work I present is my own work and that all my citations are correctly acknowledged. I am aware that the use of unacknowledged extraneous materials and sources constitutes a serious ethical and disciplinary offence.

Rita Avelar

Lisbon, March of 2023

List of Abbreviations

AEOI	Automatic Exchange of Information
AML/CFT	Anti-Money Laundering and Counter-Terrorist Financing
BEPS	Base Erosion and Profit Shifting
CARF	Crypto-Asset Reporting Framework
CASP	Crypto-Asset Service Provider
CRS	Common Reporting Standard
DAC	Directive on Administrative Cooperation
DCEP	Digital Currency Electronic Payment
DLT	Distributed Ledger Technology
DTA	Double taxation treaties
ECB	European Central Bank
EOIR	Exchange of Information on Request
FATCA	Foreign Account Tax Compliance Act
FATF	Financial Action Task Force
FFI	Foreign Financial Institution

FMV	Fair Market Value
IGA	Intergovernmental Agreements
IRS	Internal Revenue Service
KYC	Know Your Customer
MiCA	Markets in Crypto-Assets
NFT	Non-Fungible Token
OECD	Organisation for Economic Co-operation and Development
PBOC	People's Bank of China
TIEA	Tax Information Exchange Agreement
TIN	Tax Identification Number
VAT	Value Added Tax

Declaration of Characters

This dissertation is submitted in 97 pages, with the body of the dissertation, including spaces and notes, occupying a total of 150.531 characters.

Abstract

As the usage of digital assets continues to expand, governments throughout the globe are tasked with ensuring that individuals and corporations pay the correct amount of taxes on their taxable income and assets. This dissertation begins with an examination of the different types of exchange of tax information between tax administrations of different states, followed by a historical evolution, concentrating on the legislative framework and practical execution of automatic exchange of information. Afterward, an overview of the current situation of the crypto-asset market is presented, evaluating the different kinds of circulating assets and their related applications. The dissertation concludes by exploring the obstacles involved in building a crypto-asset reporting framework, including value, ownership, and transfer concerns. It achieves this goal by analyzing the evolution of the recently adopted crypto-asset reporting framework, as well as the concerns raised by stakeholders with interest and expertise in the matter.

Keywords: Crypto-assets; CARF; Exchange of Information; Reporting; Tax

Resumo

À medida que a utilização de bens digitais continua a expandir-se, os governos em todo o mundo têm a tarefa de assegurar que indivíduos e empresas paguem o montante correto de impostos sobre os seus rendimentos e bens tributáveis. A presente dissertação começa com um estudo dos diferentes tipos de troca de informação fiscal entre administrações fiscais de diversos estados, seguido de uma evolução histórica, concentrando-se no quadro legislativo e na execução prática da troca automática de informação. Posteriormente, é apresentado um panorama da situação atual do mercado de cripto-ativos, avaliando os diferentes tipos de ativos em circulação e as suas aplicações. A dissertação conclui explorando os obstáculos envolvidos na elaboração de um regime de reporte para cripto-ativos, incluindo questões relacionadas com valor, propriedade e transferência. Atinge este objetivo através da análise da evolução do regime de reporte de cripto-ativos recentemente adotado, bem como das preocupações levantadas pelas partes interessadas e perícia na matéria.

Palavras-chave: Criptoativos; CARF; Troca de Informação; Reporte; Fiscalidade

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1. Introduction[1]

The growth of crypto-assets has presented governments and regulatory organizations with new challenges. The necessity to develop adequate reporting criteria for digital assets, which may assist the proper regulation and taxation of crypto-assets, is one of the greatest obstacles.

The exchange of tax information is a crucial instrument for guaranteeing openness and accountability in financial transactions, and its significance in the context of crypto-assets is growing. Yet, the sharing of tax information on crypto-assets presents several obstacles, including value, ownership, and privacy concerns. Thus, it has been challenging to develop appropriate reporting standards and regulatory frameworks for these assets.

This dissertation intends to investigate the interaction of these two components, with a particular emphasis on assessing the OECD's crypto-asset reporting structure. The research will start with an overview of the history of the exchange of tax information in the United States, the European Union, and the OECD, including the primary drivers of such evolution and the most significant advancements in this sector.

Subsequently, the dissertation will present the numerous varieties of crypto-assets, analyzing the distinctive characteristics and difficulties of each type. It will also contain a study of the many applications and uses of crypto-assets, as well as an overview of the crypto environment's general operation.

[1] Under this topic, only papers until 31/01/2023 were analyzed.

2. Exchange of Information

When countries began to collect taxes, globalization was not nearly as developed as it is today, and so, it was simpler to collect tax from taxpayers based on the territory where the earnings occurred.

But with the development of society, conducting business and obtaining profit in different parts of the world became progressively simpler. As such, nations had to develop tax systems that prevented earners from being taxed more than once over the same revenue. In order to prevent double international taxation[2][3], the

[2] When the same income, property, or assets are taxed two or more times, it is known as "double taxation". International double taxation happens if a person or business is taxed twice on the same source of income or capital—in one jurisdiction and then again in another. This situation can occur when a taxpayer has income or assets that are taxable in two different nations due to, for instance, residing in a country and having income in another one or having double residency. For taxpayers, the resulting monetary cost may be substantial, and for companies, the imposition of double taxes can make international expansion more challenging.

[3] It is also important to establish the distinction between legal and economic double taxation, as only the first will be address under this dissertation. Legal double taxation arises when the same income or asset is subject to taxes in two or more countries. This might occur because nations have their own tax rules and regulations, resulting in double taxation of income or assets. International tax treaties give tools for minimizing or mitigating the effects of this double taxation. In contrast, economic double taxation happens when the same income or asset is taxed twice for different reasons. For instance, a company's income may be susceptible to taxation in both its country of residence and the nation in which its subsidiary operates. This is possible regardless of the existence of an international tax treaty between the two nations. For additional details, see Sousa, Mafalda Rebelo de - *Avoidance of International Double Taxation: A Plea for the Exemption System in Portugal*. Lisboa: Universidade Católica Portuguesa, Faculdade de Direito, 2012. 58 p. Master Thesis. Available at: https://repositorio.ucp.pt/bitstream/10400.14/14083/1/Master%20Dissertation%20Cat%C3%B3lica%20Global%20School%20of%20Law.pdf

exchange of information between tax authorities of different countries became a must[4].

At the same time, while States worked towards the avoidance of double taxation, some taxpayers worked to avoid paying taxes altogether, by making an abusive use of the Double Taxation Treaties[5] and resourcing to "tax havens"[6]. Therefore, there was a shift in paradigm from the problem of double taxation to a problem of double non-taxation. These two factors combined, led governments to focus their efforts on ways to efficiently exchange information which, according to the OECD, "is about achieving global tax co-operation through the

[4] Oberson, Xavier – *International Exchange of Information in Tax Matters*. 1st edition. 2015. [Accessed 25 Jan. 2023]. Available at: https://books.google.pt/books?hl=pt-PT&lr=&id=nd4WCQAAQBAJ&oi=fnd&pg=PR1&dq=exchange+of+information+tax&ots=_16Ce5mL9J&sig=Sume6X4xjmaa4tlfIBViQ4UNQ4E&redir_esc=y#v=onepage&q&f=true

[5] Double taxation treaties (also known as double tax agreements or DTAs) are pacts negotiated between nations to limit or eliminate the incidence of double taxes. These treaties also aim to create clear standards for deciding which nation has the authority to tax a specific income. Depending on a taxpayer's residence, the origin of the income, or other considerations, the treaties may assign taxing authority over some or all of a taxpayer's income to one the nations. For additional details, see: *Europa.eu*. Double taxation. [Accessed 25 Jan. 2023]. Available at: https://europa.eu/youreurope/citizens/work/taxes/double-taxation/index_en.htm

[6] Also known as offshores and formally "non-cooperative jurisdictions for tax purposes" or "uncooperative tax havens". The OECD identifies four main points in order for a nation to be considered a tax haven:
"1) No or nominal tax on the relevant income; 2) Lack of effective exchange of information; 3) Lack of transparency; 4) No substantial activities." Tax havens are located in nations or territories that provide advantageous tax treatment and financial services to non-resident corporations and people. Reduced or zero income and profit taxes, lax regulation, and stringent bank secrecy are characteristic features of offshore financial centers. These nations have enticing tax and regulatory environments, hence luring international investment and financial activity. For additional details, see: *COUNTERING OFFSHORE TAX EVASION*. OECD. 2009. [Accessed 25 Jan. 2023]. Available at: https://www.oecd.org/ctp/exchange-of-tax-information/42469606.pdf

implementation of international tax standards and other instruments to put an end to bank secrecy and tackle tax evasion"[7].

2.1. Types of Exchange of Information

2.1.1. Exchange of Information Upon Request (EOIR)

Exchange of information upon request occurs in cases where, with a specific tax case in mind, the responsible authority of one nation can make a request for information to the designated authority of another nation. Often, the sought documentation will pertain to an inspection or investigation of a taxpayer's tax obligation for certain tax years[8].

DTAs and tax information exchange agreements (TIEAs)[9] outline the procedures to be followed when exchanging tax information upon request.

[7] *Oecd.org*. Exchange of Information. 2022. [Accessed 25 Jan. 2023] Available at: https://www.oecd.org/tax/exchange-of-tax-information/.

[8] *MANUAL ON THE IMPLEMENTATION OF EXCHANGE OF INFORMATION PROVISIONS FOR TAX PURPOSES*. 2006. [Accessed 10 Feb. 2023]. Available at: https://www.oecd.org/ctp/exchange-of-tax-information/36647905.pdf.

[9] TIEAs are international treaties involving two or more nations to interchange tax-related data. The agreements aim to increase transparency, improve tax compliance, and aid in the prevention of tax evasion and other types of tax fraud. TIEAs provide a formal mechanism for the sharing of tax information between the tax authorities of various nations. Financial asset information such as bank accounts, trusts, and other assets, as well as company ownership and management records, might fall under these agreements. More narrowly focused than broader agreements like double taxation treaties, TIEAs facilitate sharing tax information between nations with limited commercial or financial relationships.

2.1.2. Spontaneous Exchange of Information

The OECD defines spontaneous exchange of information as "the provision of information to another contracting party that is foreseeably relevant to that other party and that has not been previously requested"[10]. As such, these information exchanges are characterized by the absence of a prior request.

Tax authorities may strike an agreement to exchange information through a variety of bilateral and international channels. The most prevalent method for the spontaneous communication of tax information is the exchange of information provision included in bilateral tax treaties. These provisions compel signatories to provide information pertinent to the administration and enforcement of their respective domestic tax laws.

This sort of exchange is established under the Base Erosion and Profit Shifting (BEPS)[11] project, whose goal is to create a more equitable and transparent worldwide tax system that more closely links the taxes of multinational corporations to the economic activity from which they get their revenues.

2.1.3. Automatic Exchange of Information (AEOI)

According to the OECD, automatic exchange of information "involves the systematic and periodic transmission of "bulk" taxpayer information by

[10] *Supra*, note 8.

[11] BEPS is a term utilized to describe the methods multinational corporations use to reduce their tax bills by moving money out of countries with higher rates of corporate taxation and into countries with lower rates.

the source country to the residence country concerning various categories of income (e.g. dividends, interest, etc.)"[12]. Unlike the exchange of information upon request, which requires a formal request, this type of exchange will take place regardless of whether there is a specific case that needs the information or not.

Tax authorities can promote openness and decrease worldwide tax evasion with the use of these automatic exchanges, which are predicted in the Foreign Account Tax Compliance Act, the Common Reporting Standard, the Directives on Administrative Cooperation, and bilateral agreements, all of which will be analyzed below.

2.2. Evolution in the United States

The United States took a big step towards an effective exchange of tax information with the introduction, in 2001, of the "Qualified Intermediary System". This regime was created with the main goal of ensuring that foreign investors earning money in the United States were paying their fair share of federal income tax. With that in mind, non-U.S. financial institutions would be required to gather information regarding any of their clients investing in the United States, with the goal of determining whether they were considered U.S. persons and the correct taxation of those clients[13]. However, since its

[12] *Oecd.org*. Automatic Exchange of Information. 2015. [Accessed 10 Feb. 2023] Available at: https://www.oecd.org/tax/exchange-of-tax-information/automaticexchange.htm.

[13] Grinberg, Itai - Beyond FATCA: *An Evolutionary Moment for the International Tax System*. Georgetown: Georgetown University Law Center, 2012. Available at: https://doi.org/10.2139/ssrn.1996752.

applicability was restricted to income earned in the United States, the scope and efficiency of the Qualified Intermediary Systems were limited.

A few years later, a report[14] issued by the Internal Revenue Service (IRS)[15], in 2007, determined that "(…) an unacceptably large amount of the tax that should be paid every year is not, (…) giving rise to (…) a net tax gap of approximately $290 billion [in 2001]"[16]. Almost concurrently, in 2008, a global financial crisis hit, and several tax scandals arose. With it, there was also a raising concern that the 2001-implemented mechanism for qualified intermediaries was being abused, which lead the US to rethink its approach to the exchange of information[17].

The response found was the introduction of the Foreign Account Tax Compliance Act (FATCA), as a part of the HIRE Act[18], in March 2010. The

[14] Internal Revenue Service - Reducing the Federal Tax Gap a Report on Improving Voluntary Compliance. 2007. Available at: https://www.irs.gov/pub/irs-news/reducing_the_tax_gap.pdf

[15] Created in 1862 as a division of the Department of Treasury, the IRS is the United States federal agency charged with collecting taxes and enforcing tax laws. Its principal objective is to guarantee that taxpayers understand and abide by their tax duties and that the government receives the necessary income to fund public services and initiatives. In addition to assisting and educating taxpayers, the IRS conducts criminal investigations involving tax evasion and fraud. For additional details, see *irs.gov*. The Agency, its Mission and Statutory Authority. 2022. [Accessed 10 Feb. 2023] Available at: https://www.irs.gov/about-irs/the-agency-its-mission-and-statutory-authority.

[16] *Supra*, note 14.

[17] Beer, Sebastian; Coelho, Maria Delgado; Leduc, Sebastien - *Hidden Treasure: The Impact of Automatic Exchange of Information on Cross-Border Tax Evasion*. 2019. Available at: https://doi.org/10.5089/9781513519975.001.A001.

[18] In 2010, the United States government passed the Hiring Incentives to Restore Employment (HIRE) Act, which offered financial incentives to businesses that hire and keep on new workers. In addition to those incentives, the HIRE Act also includes measures to increase tax compliance and reduce instances of offshore tax evasion. Said Measures included harsher fines for non-

main purpose of FATCA is to prevent tax avoidance by US persons[19] who use international bank accounts. The statute imposes severe penalties on international financial institutions that fail to provide data about their US customers to the IRS.

If a US person has overseas assets[20] worth more than a specific amount, they must declare them to the IRS (said amounts vary depending on whether the person is a resident in the US or living abroad).

As for foreign financial institutions (FFIs), these must reveal the accounts owned by US persons[21]. This involves checking the identities of account holders in both new and existing accounts to see whether any US persons are the owners. FFIs are also obligated to provide periodic reports to the IRS detailing the financial holdings of US persons and residents. In addition to the account balance and any interest or dividends, this data also contains the account holder's name, address, and tax identification number. Lastly,

compliance, more stringent reporting standards for overseas banks, and more resources for the Internal Revenue Service (IRS) to crack down on tax evaders.

[19] Persons or entities that fall within the purview of U.S. taxation are referred to as a "U.S. person" under U.S. tax law. One may find a vast variety of persons and organizations inside the term of "U.S. person," which includes U.S. citizens, U.S. residents, U.S. corporations, U.S. partnerships and U.S. trusts and estates.

[20] These assets include bank accounts, investment accounts, retirement accounts, trusts and estates, insurance policies, real estate, and business interests.

[21] On the opposite side, a non-US person who receives income from US sources may be required to submit intermediaries with a W8BEN or W8BEN-E form to demonstrate that they are not a US person for tax purposes. Given that the US tax system has unique regulations for taxing US persons and non-US persons, intermediaries must correctly categorize US and non-US persons in order to comply with these requirements. Individuals should fill out Form W8BEN, while businesses should utilize Form W8BEN-E. Name, address, country of residence, taxpayer ID number, and certification of non-US status are some of the required pieces of information to be filled out on these forms.

payments to accounts that do not meet regulatory requirements must have 30% of their contents withheld by FFIs.

In the event of non-compliance with FATCA, financial institutions may be subject to monetary penalties from the IRS, which can include penalties for not withholding taxes or not filing required reports.

Since FATCA went into effect, in 2014, a total of 113 jurisdictions have compromised to share financial information automatically with the United States by signing FATCA Intergovernmental Agreements (IGA)[22].

2.3. Evolution in the European Union

The European Union began to react on its own to the international battle against tax evasion in 2003. Through Council Directive 2003/48/EC[23] on taxation of savings income in the form of interest payments, the EU became an innovator by creating, the first transnational AEOI system. According to the terms of the Directive, the partaking nations had the choice of exchanging data on overseas EU citizens with other involved countries or imposing a withholding tax on interest income held by every reportable person. The Directive was a step in the right direction, but it was not a complete fix because

[22] *U.S. Department of the Treasury*. Foreign Account Tax Compliance Act. [Accessed 3 Jan. 2023] Available at: https://home.treasury.gov/policy-issues/tax-policy/foreign-account-tax-compliance-act.

[23] LUXEMBOURG. OFFICIAL JOURNAL OF THE EUROPEAN UNION - Council Directive 2003/48/EC of 3 June 2003 on taxation of savings income in the form of interest payments. Official Journal L157/38 (3 June 2003). Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32003L0048&from=EN.

of its geographical and material scope, as it solely considered private savings and investment income and disregarded business investments and funds[24].

Later, in 2011, Directive 2011/16/EU, known as DAC1 (Directive on Administrative Cooperation 1), came into force intending to set the "rules and procedures under which the Member States shall cooperate with each other with a view to exchanging information that is foreseeably relevant to the administration and enforcement of the domestic laws of the Member States"[25]. This Directive was applicable to every type of tax to be collected by, or on behalf, of Member States, apart from value-added tax (VAT)[26], customs duties[27], excise duties[28], and compulsory social security contributions.

[24] The Directive ended up being revoked, in 2015, when Council Directive 2014/107/EU of 9 December 2014 amending Directive 2011/16/EU was implemented. Said Directive, which regarded mandatory automatic exchange of information in the field, introduced the Common Reporting Standard (v. *infra*) at EU level. For additional details, see Council Directive 2014/107/EU of 9 December 2014 amending Directive 2011/16/EU [2014] Official Journal L359/1, *infra* note 30.

[25] BRUSSELS. OFFICIAL JOURNAL OF THE EUROPEAN UNION - Council Directive 2011/16/EU of 15 February 2011 on administrative cooperation in the field of taxation and repealing Directive 77/799/EEC. Official Journal L64/1 (15 February 2011). Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011L0016&from=en.

[26] The value-added tax is a consumption tax that is calculated based on the value that is added to a good or service during the process of its production and delivery. It is a tax on the value contributed by firms throughout the supply chain, as opposed to a tax on the customer who is the ultimate end user. The tax is often already included into the price of the product or service and is collected from the customer by the company that is selling the product or service.

[27] Customs duties are taxes or tariffs levied by a government on items imported into or exported from its territory. These tariffs are often based on the value or quantity of the items and are intended to generate government income, safeguard domestic industries, and control foreign commerce.

[28] Excise duties are a kind of tax that is placed on certain products and services that are seen to be detrimental to society or have an adverse effect on its members. Typically, these taxes are levied

These Directives maintained a steady evolution throughout the years, with each amendment being a valuable addition. The table below contains a summary of the changes introduced in each DAC:

Directive on Administrative Cooperation – DAC							
DAC1 **2011/16/EU** Applies 1/2013 **-Exchange of information on request** **-Spontaneous exchange** of information **-Presence in adm. offices** **-Simultaneous controls** **-Request for notification** **-Sharing best practices** **-Use of standard forms**	**DAC1** **2011/16/EU** Applies 1/2015 1st exchanges 30.6.2015 **-Automatic exchange of information (AEOI) on 5 non-financial categories** -Income from employment -Directors fees -Pensions -Life insurance products -Immovable property (income and ownership)	**DAC2** **2014/107/EU** Applies 1/2016 1st exchanges 30.9.2017 Automatic exchange of **financial account information** : -Interests, dividends and other income generated by financial account; -Gross proceeds from sale or redemption; -Account balances.	**DAC3** **2015/2376/EU** Applies 1/2017 1st exchanges 30.9.2017 Automatic exchange of information of: **-Advance cross-border rulings** **-Advance pricing agreements.**	**DAC4** **2016/881/EU** Applies 6/2017 1st exchanges 30.6.2018 **Automatic exchange of information** on **country-by-country-reports** on certain financial information: -Revenues; -Profits; -Taxes paid and accrued; -Accumulated earnings; -Number of employees; -Certain assets.	**DAC5** **2016/2258/EU** Applies 1/2018 **Access by tax authorities to beneficial ownership information** as collected under AML rules.	**DAC6** **2018/822/EU** Applies 7/2020 1st exchanges 31.8.2020 **-Mandatory disclosure rules** for **intermediaries**; and **-Automatic exchange of information** on tax planning **cross-border arrangements**.	**DAC7** **2021/514/EU** Applies 1/2023 1st exchanges 2.2024 **Automatic exchange of information and reporting rules for digital Platform Operators** with respect to income earned by Sellers with the use of their platforms for the **sale of services and goods**.

Table 1: Evolution of the DAC[29]

not just on products like cigarettes, alcohol, petrol, and luxury items, but also on services such as gambling. Excise duties are a common method that governments use in order to raise income while also discouraging the consumption or usage of a number of different goods or services. The taxes are often levied at the point where the items are manufactured, produced, or imported, and they are frequently included into the price that the customer is required to pay for the product.

[29] EUROPEAN COMMISSION - *COMMISSION STAFF WORKING DOCUMENT, 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.* Brussels: 2022.

The DAC1 regulates the sharing of information between tax authorities in various Member States. To avoid tax evasion and fraud, it mandates Member States to communicate information about taxpayers and their assets, including bank account balances, dividends, and capital gains. The directive specifies the methods and standards for sharing information, including the kind of information to be sent, the format for transmitting information, and the required confidentiality regulations.

Directive 2014/107/EU, commonly known as DAC2, came shortly after the Common Reporting Standard, with the goal "to ensure that the expanded scope of automatic exchange of information within the Union [was] in line with international developments"[30]. As explained in the Directive:

> "To achieve this objective, Member States should require their Financial Institutions to implement reporting and due diligence rules which are fully consistent with those set out in the Common Reporting Standard developed by the OECD."[31]

As such, DAC2 paved the way for EU countries to implement the new regulatory framework that had been developed by the OECD (v. *infra*).

DAC3 defines mechanisms for the automated exchange of data on certain categories of income and assets. The regulation mandates Member States to automatically share information on their taxpayers' income and assets, including bank account balances, dividends, and capital gains. The directive encompasses a vast array of financial instruments, including interest income, dividends, and certain insurance products.

[30] OFFICIAL JOURNAL OF THE EUROPEAN UNION - Council Directive 2014/107/EU of 9 December 2014 amending Directive 2011/16/EU as regards mandatory automatic exchange of information in the field of taxation. Official Journal L359/1 (9 December 2014). Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0107&from=EN%20p%202.

[31] *Ibid*.

DAC4 requires that Member States create beneficial ownership registries for corporations and trusts. The regulation mandates corporations and trusts to disclose their beneficial owners' names, birth dates, and addresses. The data must be stored in a central registry accessible to tax officials, law enforcement agencies, and other competent authorities.

DAC5 mandates that Member States adopt countermeasures against tax evasion and aggressive tax planning. The regulation compels intermediaries, such as tax consultants and attorneys, to disclose cross-border agreements with particular indicators of tax avoidance or evasion. The directive specifies the reporting requirements, including the required kind of information, the reporting schedule, and the report's format. The directive seeks to increase tax system openness and prohibit aggressive tax planning.

DAC6 stipulates that intermediaries, including tax consultants, attorneys, and banks, must disclose cross-border agreements with particular features that indicate tax avoidance or evasion. The directive specifies the reporting requirements, including the required information, the date and style of the report, and the consequences of non-compliance. The directive aims to increase tax system openness and prohibit aggressive tax planning.

DAC7 advocates extending automated information sharing to digital platforms. The directive intends to enhance the taxation of the digital economy by mandating digital platforms to disclose their users' incomes. This will allow tax authorities to track and tax the money produced by digital platforms and their users more effectively.

Currently, the plans for a new amendment of the Directive are in motion, which will effectively constitute DAC8[32]. This latest Directive will be focused on

[32] For more details, see *infra*, chapter 5.

the exchange of information and reporting matters of crypto-assets, for direct tax purposes[33].

2.4. Evolution at the OECD

The process to achieve the present stage of automatic exchange of information was lengthy. It may be traced back to as early as 1996 when the OECD was called to "develop measures to counter the distorting effects of harmful tax competition on investment and financing decisions, and the consequences for national tax bases, and report back in 1998".[34] As a response, the OECD issued a report[35] on unfair tax competition, outlining major policy instruments to combat tax evasion based on moving wealth and associated income to low-tax nations, primarily tax havens. One of the key issues pointed out was the lack of effective exchange of information, to which the OECD recommended that "countries should undertake programs to intensify the exchange of relevant information concerning transactions in tax havens and preferential tax regimes constituting harmful tax competition"[36].

[33] *European Commission*. Questions and Answers: DAC8. [Accessed 3 Feb. 2023] Available at: https://ec.europa.eu/commission/presscorner/detail/en/qanda_22_7517.

[34] *Oecd.org*. Recommendation of the Council on Counteracting Harmful Tax Competition. 1998. [Accessed 3 Feb. 2023]. Available at: https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0297#dates.

[35] ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT - HARMFUL TAX COMPETITION: An Emerging Global Issue (Paris: OECD, 1998). Available at: https://www.oecd.org/ctp/harmful/1904176.pdf.

[36] *Ibid*.

Taking things one step further, in April of 2002, the OECD Global Forum on Effective Exchange of Information's[37] Working Group[38] released a framework for an agreement to share financial information. This model agreement was named TIEA[39] and described the interchange of financial data between designated tax havens and OECD member countries. Despite being a notable initiative, the TIEA was not a binding instrument but a basis from which bilateral and multilateral agreements could be established and interpreted and didn't really have the expected adherence from the desired jurisdictions.

[37] After the 1998's report putting such emphasis on tax havens and the problems deriving from them, some tax haven jurisdictions opposed to the report under the pretext that it was OECD's one-sided judgement. As such, it was settled that a new organization would be created, under OECD's supervision, in an effort to be more inclusive. Said organization was founded in 2000 and became known as the *Global Forum on Transparency and Exchange of Information for Tax Purposes*. For additional details, see *oecd.org*. Who We Are. [Accessed 3 Feb. 2023]. Available at: https://www.oecd.org/tax/transparency/who-we-are/.

[38] "The Working Group" included officials from OECD Member states and spokespeople from Aruba, Bermuda, Bahrain, Cayman Islands, Cyprus, Isle of Man, Malta, Mauritius, the Netherlands Antilles, the Seychelles, and San Marino.

[39] For more details, see *supra*, note 9.

After G20's[40] 2009 London Summit, the OECD released a progress report[41] regarding the application of the Internationally Agreed Tax Standard[42] by known[43] tax havens. Said report pinpointed "(i) jurisdictions that (…) substantially implemented the standard, (ii) other jurisdictions that (…) committed to but not yet implemented the standard, and tax havens that (…) committed to but not yet implemented the standard, and (iii) jurisdictions that have not committed to the standard"[44]. The criterion used to determine which jurisdictions had substantially implemented the standard was based on the

[40] The Group of Twenty (G20) is a global forum for coordinating policy among the world's leading established and developing nations. The Group is comprised of 19 major countries and the European Union, including the BRICS (Brazil, Russia, India, China and South Africa), nations that are not OECD members (Argentina, Indonesia, and Saudi Arabia) and the following OECD members: Australia, Canada, France, Germany, Italy, Japan, Korea, Mexico, Turkey, United Kingdom and United States, along with the European Union. Representing "more than 80 percent of world GDP, 75 percent of international trade and 60 percent of the world population", the G20 is crucial to ensuring the continued expansion and prosperity of the global economy. For additional details, see: *g20.org*. About the G20 – G20 Presidency of Indonesia. 2022. [Accessed 30 Jan 2023] Available at: https://www.g20.org/about-the-g20/#origins.

[41] *A PROGRESS REPORT ON THE JURISDICTIONS SURVEYED BY THE OECD GLOBAL FORUM IN IMPLEMENTING THE INTERNATIONALLY AGREED TAX STANDARD.* [Accessed 9 Nov. 2022]. Available at: https://www.oecd.org/tax/exchange-of-tax-information/42497950.pdf.

[42] "The internationally agreed tax standard on exchange of information, as developed by the OECD and endorsed by the UN and the G20, provides for full exchange of information on request in all tax matters without regard to a domestic tax interest requirement or bank secrecy for tax purposes. It also provides for extensive safeguards to protect the confidentiality of the information exchanged.". *Supra*, note 6.

[43] In 2000, these nations were classified as fitting the tax haven standards outlined in the OECD report from 1998.

[44] *Supra*, note 6.

signature (or lack of) of 12 information exchange agreements meeting the TIEA standards[45].

In a meeting held in September of 2013, G20 Leaders backed the OECD proposal for a genuinely international model for the automatic exchange of information and encouraged the OECD, to create such a standard, including technological aspects, in an attempt to more effectively combat tax evasion and assure tax compliance.[46]

As such, in 2014, the OECD, G20 nations, the EU, and other organizations joined forces to come up with the Standard for Automatic Exchange of Financial Account Information in Tax Matters (hereinafter, "the Standard"), meant to be a powerful new system to avoid tax evasion by providing tax authorities with more data on their citizens' overseas assets[47]. The Standard was comprised of: the Common Reporting Standard (CRS), the Model Competent Authority Agreement (CAA), as well as commentaries to interpret both the latter and various annexes.

Following in the footsteps of the United States, a pioneer in the automatic exchange of tax information, the member states of the OECD, along with the European Union and the nations that form the G20, have developed a

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[45] *Ibid.*

[46] ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT - *Standard for Automatic Exchange of Financial Information in Tax Matters.* OECD, 2014. Available at: https://read.oecd-ilibrary.org/taxation/standard-for-automatic-exchange-of-financial-account-information-for-tax-matters_9789264216525-en.

[47] ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT - *Standard for Automatic Exchange of Financial Information in Tax Matters, Implementation Handbook.* 2nd Edition. OECD, 2018. Available at: https://www.oecd.org/tax/exchange-of-tax-information/implementation-handbook-standard-for-automatic-exchange-of-financial-information-in-tax-matters.pdf.

truly multilateral agreement that is modeled after FATCA, intending to streamline information sharing across all participating nations with the use of automated processes.

The key component of the Standard is the CRS, which lays forth the specific guidelines that financial institutions must adhere to, so that appropriate data may be gathered and reported. To ascertain which nation has taxation authority over their taxpayer's wealth without depending on their self-disclosure, it requires governments to gather information from their financial institutions and automatically transmit that data to other jurisdictions continuously[48].

So far, over 110 governments have committed to using the CRS and, as of October 2022, there were more than 4,900 ongoing bilateral exchange agreements[49].

[48] *Ibid.*

[49] *Oecd.org*. Activated Exchange Relationships For CRS Information. [Last updated October 2022; Accessed 30 Nov 2022] Available at: https://www.oecd.org/tax/automatic-exchange/international-framework-for-the-crs/exchange-relationships/.

3. Cryptoworld

3.1. Introduction

The beginning of the "crypto world" as we know it today dates back to October 2008, when the "Bitcoin Whitepaper"[50], was published anonymously under the alias Satoshi Nakamoto, outlining the foundation for a paradigm shift in the way in which worldwide payments are processed and how data is managed across businesses.

The fundamental goal of this system was to "allow online payments to be sent directly from one party to another without going through a financial institution"[51] in order to avoid certain known flaws of the traditional payment system: in the event of a transaction disagreement, such as when a transaction has to be reversed, conventional payments often incur hefty transaction and mediation expenses; these payment methods are also susceptible to fraud and need a reliable third party at all times.

In January 2009, the first Bitcoin (BTC) had been created, launched into circulation, and transacted, thus becoming the first cryptocurrency in the world, setting the path for the creation of many others.

However, although Bitcoin became a hot topic due to its enormous price valuation, the key ingredient to its success, the Blockchain, went far beyond its initial intended use.

[50] Nakamoto, Satoshi - *Bitcoin: A Peer-To-Peer Electronic Cash System*. 2008. [Accessed 3 Dec 2022]. Available at: https://bitcoin.org/bitcoin.pdf.

[51] *Ibid.*

3.2. Distributed Ledger Technology (DLT)

In many ways, Distributed Ledger Technology (DLT) is a game-changer that might affect many sectors and uses. DLT is a database system that utilizes a network of computers to facilitate the safe and efficient storage, sharing, and management of information and transactions between numerous parties. DLT systems have no single point of failure or governance, contrasting with centralized databases[52].

DLT's use of encryption to protect transactions and guarantee the database's consistency is one of its most distinguishing characteristics. In other words, once data is stored in a DLT system, it cannot be changed or removed without the agreement of at least 51% of the members of the network. Additionally, this guarantees that the database is consistent for all users, creating a verifiable, authoritative source of information.

DLT's capacity to facilitate direct transactions between users is another major benefit. This might drastically cut down on expenses, boost productivity, and speed up financial dealings. In the field of supply chain management, for instance, DLT can keep a public and immutable log of all transactions, from the very beginning until the delivery of the final product to the customer. This has the potential to enhance supply chain performance by decreasing fraud, raising visibility, and removing obstacles to information flow[53].

[52] WORLD BANK GROUP - *Distributed Ledger Technology (DLT) and Blockchain*. WBG, 2017. [Accessed 3 Jan 2023]. Available at: https://openknowledge.worldbank.org/server/api/core/bitstreams/5166f335-35db-57d7-9c7e-110f7d018f79/content.

[53] *Ibid.*

In its most well-known form, distributed ledger technology may be found in blockchain, the underpinning technology powering the cryptocurrency Bitcoin.

3.3. The Blockchain

Essentially, a blockchain is, as the name indicates, a chain of blocks that contains information. In 1991, a team of academics first proposed this method for digitally timestamping documents to make it impossible to alter or fake their creation dates[54].

Each block stores data, a hash of the current block, as well as the hash of the block that came before it. The kind of data that is kept inside a block differs according to the blockchain that is being used. The hash function, which is analogous to a fingerprint in that it identifies a block as well as all of the information contained inside it, is unique. The hash of a block is computed as soon as it is formed, and any change to the contents of a block will cause that block's hash to also change. This property of hashes makes them an extremely valuable tool for tracking changes to blocks. The hash of the preceding block is stored as the third element in each block. This effectively creates a chain of blocks, which is essential to the blockchain's function of providing security[55].

[54] Lamounier, Lucas - *A História Da Tecnologia Blockchain: Conheça Sua Timeline*. 2018. [Accessed 3 Jan 2023]. Available at: https://101blockchains.com/pt/historia-da-tecnologia-blockchain/.

[55] *Ibm.com*. What Is Blockchain Technology. [Accessed 3 Jan 2023]. Available at: https://www.ibm.com/topics/what-is-blockchain.

The information in a blockchain can only be added to the most recent block and none of the blocks that came before it can be changed. This feature, when combined with the protection offered by the hashes, makes it very difficult, if not impossible, to compromise the blockchain. This is because the information contained on the blockchain is not kept by a conventional centralized authority. Instead, it is disseminated to each and every member of the chain, making it possible for everyone to see the complete sequence of occurrences. As a result, to hack a blockchain, one would need to alter the information that at least 51% of the members hold (if a certain piece of information is prevalent on the web, it will be regarded as the truth).

To sum up, "a blockchain gains its secure, immutable nature by combining two innovations: a cryptographic link between records that makes changes progressively more difficult the longer the chain is, and the distribution of the data to all participating nodes on the decentralized network in which it is expected honest nodes outnumber potential attackers"[56].

3.3.1. Mining

In the context of crypto-assets, mining is the practice of confirming transactions and adding them to a public ledger called a blockchain. By employing sophisticated computer gear, miners attempt to solve difficult

[56] Sultan, Karim; Ruhi, Umar; Lakhani, Rubina - *CONCEPTUALIZING BLOCKCHAINS: CHARACTERISTICS & APPLICATIONS.* 2018. [Accessed 3 Jan 2023]. Available at: https://arxiv.org/ftp/arxiv/papers/1806/1806.03693.pdf.

mathematical puzzles in the hopes of earning a reward in the form of the crypto-assets they are mining[57].

This procedure aids in network security and fraud prevention by making it very difficult to change prior transactions on the blockchain. It also facilitates the creation of new tokens and their distribution to the miners who provide the network with computing power and energy[58].

3.3.2. Proof of Work

Many digital currencies employ Proof of Work as a consensus technique for network security and transaction validation. In a proof-of-work network, miners compete to solve difficult mathematical problems and the winner of this competition is granted the ability to verify transactions and add them to a distributed ledger[59].

These issues take a large number of computing resources to solve (the name "proof of work" actually comes from the amount of computer power needed) and have difficult-to-produce yet simple-to-verify answers. As a result, it would be quite hard for a single miner or group of miners to exercise centralized control over the network and alter the blockchain since it would require using enormous computing resources[60].

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[57] *coinbase.com*. What is Mining? [Accessed 3 Jan 2023]. Available at: https://www.coinbase.com/pt-PT/learn/crypto-basics/what-is-mining

[58] *Ibid.*

[59] *coinbase.com. What is "proof of work" or "proof of stake"?* [Accessed 3 Jan 2023]. Available at: https://www.coinbase.com/th/learn/crypto-basics/what-is-proof-of-work-or-proof-of-stake

[60] *Ibid.*

Many cryptocurrencies, including Bitcoin and Ethereum, have found Proof of Work to be an effective consensus method. It has, however, been critiqued for its excessive energy usage and the possibility that mining power may be centralized around a small number of big mining pools. As a consequence, alternative consensus techniques like Proof of Stake (v. *infra*) are being investigated as possible answers to these problems.

3.3.3. Proof of Stake

In order to verify transactions and create new blocks, some blockchain networks utilize a consensus mechanism called Proof of Stake.

Unlike Proof of Work, which, as seen above, relies on computational capacity to solve complicated mathematical problems, Proof of Stake selects validators to verify transactions based on the number of tokens they have and are willing to "stake" or lock up, as collateral. The winner is selected and given a chance to validate the block's transactions, which will be verified by other participants of the network. If everything is done correctly, all of the validators will receive a cryptocurrency reward[61].

The goal behind Proof of Stake is to create a more power-efficient consensus mechanism for blockchain networks. Users are also encouraged to keep their coins using Proof of Stake since they are rewarded for staking them and contributing to the network's consensus process[62].

[61] *Ibid.*

[62] *Ibid*.

3.4. Types of Crypto-assets[63]

3.4.1. Cryptocurrencies

By definition, a cryptocurrency system is designed to issue tokens that can be exchanged for goods and services, and which are recorded in a distributed digital ledger that uses encryption to secure financial transactions instead of relying on centralized authorities.[64] They are distinct from fiat currency since they are not backed by any government or central bank, neither their creation nor their exchange are subject to control by a government, banking system, or other institution, and they are transferred directly between users through the corresponding blockchain.

These coins may be mined or purchased directly on the blockchain, although it is more typical for them to be obtained and traded through intermediary trading platforms due to the technological complexity of working on the blockchain.

3.4.1.1. Cryptocurrencies and E-money

Recent years have seen substantial progress in the field of digital currency, with the emergence of both cryptocurrencies and e-money.

[63] Although the terms "crypto-assets" and "digital assets" are frequently used synonymously, there is a subtle difference between the two forms of assets. Crypto-assets constitute a sort of digital asset that uses cryptography to secure and authenticate transactions, as well as to regulate the creation of new units. Typically, crypto-assets have a decentralized structure and may operate independently of traditional monetary systems.

[64] Pernice, Ingolf G. A.; Scott, Brett – *Cryptocurrency*. Internet Policy Review 10, no. 2. 2021. [Accessed 4 Jan 2023]. Available at: https://doi.org/10.14763/2021.2.1561.

Both allow for convenient digital transactions, but they operate on quite distinct technological, secure, and decentralized foundations.

Financial transactions made using a decentralized cryptocurrency, like Bitcoin, are completely transparent and very hard to hack because of the blockchain technology that underpins the system[65].

E-money, on the other hand, is a kind of digital payment issued and controlled by banks that adhere to strict regulatory guidelines. The issuing bank's guidelines and policies control all transactions recorded in one single location. Electronic currency is often linked to a user's bank account due to the ease with which money may be transferred between accounts[66]. As examples of e-money, one can look at the digital yuan and the digital euro.

The digital yuan, also known as the Digital Currency Electronic Payment (DCEP), is a digital representation of the yuan, China's official currency, issued and controlled by the People's Bank of China (PBOC). The digital yuan is intended to function alongside physical currency and other payment systems, offering consumers and companies a government-backed digital payment alternative. It is also seen as a means of modernizing China's financial system and fostering financial inclusion. By being issued and managed by a central body, the PBOC, it also enables the Chinese government to monitor and control financial activities and trace the transfer of money[67].

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[65] Desjardins, Jeff - *Explained: The Differences Between Electronic Money and Bitcoin*. 2015. [Accessed 4 Jan 2023]. Available at: https://www.visualcapitalist.com/explained-the-differences-between-electronic-money-and-bitcoin/.

[66] *Ibid.*

[67] Fullerton, Elijah Journey; Morgan, Peter J. - *THE PEOPLE'S REPUBLIC OF CHINA'S DIGITAL YUAN: ITS ENVIRONMENT, DESIGN, AND IMPLICATIONS*. ADBI Discussion

The European Central Bank (ECB) is also examining a potential digital version of the euro currency known as the digital euro. It would be an electronic form of currency produced and supported by the ECB, similar to banknotes and coins. The digital euro would enable electronic transactions using digital wallets on cellphones and other devices. It would function alongside traditional payment methods such as credit cards and bank transfers and would be meant to be quick, secure, and easy. One of the primary objectives of the digital euro is to establish a safe and dependable method of electronic payment that is under the jurisdiction of the central bank. It might also aid in reducing the usage of cash and promoting financial inclusion, especially for individuals who lack access to conventional banking services[68].

There are several positive and negative aspects of using cryptocurrency or electronic money. Cryptocurrencies have an impressively high level of security because of the sophisticated encryption mechanisms they use and the fact that transactions will not go via a governing authority. But if a user loses or has their private keys stolen, their cryptocurrency is no longer secure, and they will no longer have access to their funds. The case is different for electronic money, which is backed by the trustworthiness of the organization that issued it and is subject to governmental regulations and standards[69].

One other key contrast between cryptocurrency and e-money is its decentralized nature. Users of cryptocurrencies have unparalleled

Paper Series. 2022. [Accessed 4 Jan 2023]. Available at: https://www.adb.org/sites/default/files/publication/772316/adb-wp1306.pdf.

[68] *ecb.europa.eu*. Digital euro. [Accessed 5 Jan 2023]. Available at: https://www.ecb.europa.eu/paym/digital_euro/html/index.en.html.

[69] *Supra*, note 65.

freedom since there is no central authority or authority node to rely on. Electronic money, on the other hand, is issued by a central authority and is subject to the laws and regulations of the issuing government or organization[70].

Finally, the convenience of digital transactions is shared by both cryptocurrencies and e-money. Cryptocurrencies, however, are still in the early development stages, and many people see investing in them as a dangerous venture because of this. As such, e-money, which is backed by the security precautions of financial institutions and subject to government legislation, is a safer and more popular form of digital payment[71].

3.4.1.2. Cryptocurrency Wallets

A cryptocurrency wallet is the means used to store the public and private keys that give access to a user's crypto-assets. In this context, a key is defined as a lengthy series of arbitrary letters and/or numbers. The public key is similar to a bank account number; it is visible to the whole blockchain and enables the owner of the key to receive transactions. Private keys, on the other hand, are like passwords and should be kept private and secure. Every cryptocurrency transaction requires a public key to be sent to, and a private key to be able to decrypt and receive the transaction. The public key can also be named a 'wallet address' since its functions mimic the ones of a building's address.

[70] *Ibid.*

[71] *Ibid.*

3.4.1.3. Cold Wallets and Hot Wallets

There are two main categories of cryptocurrency storage options: cold wallets and hot wallets.

In the world of cryptocurrencies, a cold wallet (sometimes called a cold storage wallet) is a wallet that is kept offline and is not linked to the web. Because of this, unauthorized users will have a considerably harder time gaining access to the assets that have been stored. One may store cryptocurrency in a "cold wallet" which can be any of various offline storage mediums, including a USB drive, a printed paper wallet, or a secure offline computer.[72]

Conversely, "hot wallets" are internet-connected bitcoin storage solutions that are more susceptible to hacking and cyber assaults. Most people utilize hot wallets for their day-to-day bitcoin transactions and their lesser cryptocurrency holdings. Mobile wallets, online wallets, and desktop wallets are all examples of hot wallets. These wallets have the advantage of being accessible from any location with an internet connection, but they also increase the user's exposure to potential security threats[73].

Briefly put, the amount of protection offered by cold wallets is the primary distinction between them and hot wallets. Hot wallets are less secure but easier to use, whereas cold wallets provide more security but are more inconvenient.

[72] Ramirez, Dalia - *Crypto Hot Wallet vs. Cold Wallet: What's the Difference*. 2022. [Accessed 5 Jan 2023]. Available at: https://www.nerdwallet.com/article/investing/hot-wallet-vs-cold-wallet.

[73] *Ibid.*

3.4.1.4. Custodial Wallets and Non-Custodial Wallets

When it comes to managing and protecting one's digital assets, there are two distinct cryptocurrency wallet options: custodial and non-custodial.

A custodial wallet is a form of cryptocurrency storage in which an intermediary takes responsibility for safeguarding one's private keys and holding one's cryptocurrency. The service provider is liable for safeguarding the assets and can limit the financial resources if necessary. While custodial wallets offer increased ease of use and convenience, users should be aware that the security of their funds is dependent on the service provider, which could be compromised by hacking, bankruptcy, or fraudulent activity[74].

On the other hand, by using a non-custodial wallet, one will always have complete access and ownership of the digital assets. The keys to a non-custodial wallet are kept on the user's device, making the wallet more secure and private. With a non-custodial wallet, however, one is fully responsible for the safety of the funds, which necessitates a higher level of technical expertise and accountability[75].

Another key difference between these two types of wallets is that, since non-custodial wallets do not require intermediaries to run the transactions, they are also not subject to KYC requirements[76].

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[74] *Academy.binance.com*. *Custodial vs. Non-Custodial Wallets: What's the Difference?* [Accessed 5 Jan 2023]. Available at: https://academy.binance.com/en/articles/custodial-vs-non-custodial-wallets-what-s-the-difference

[75] *Ibid.*

[76] Know Your Customer (KYC) refers to the process of verifying the identity of customers or clients to comply with anti-money laundering (AML) and counter-terrorist financing (CTF) laws and regulations. KYC is typically performed by financial institutions and involves collecting and

3.4.2. Stablecoins

Stablecoins are a type of cryptocurrency that strive to be valued at a constant amount despite movements in the market. Stablecoins attempt to offer a more stable alternative to cryptocurrencies like Bitcoin and Ethereum, which tend to exhibit severe price fluctuation, by linking their value to a stable asset like the US dollar or gold[77].

Stablecoins aim to solve the problem of price volatility that has prevented many people from using cryptocurrencies as a payment system, while also providing the advantages of cryptocurrencies like low transaction costs and decentralization.

The most common type of stablecoins are the ones backed by a reserve of fiat money stored in a bank, with fiat-collateralized stablecoins being the most frequent. By being pegged to a stable asset, the value of the stablecoin is guaranteed to stay constant.[78]

A second kind of stablecoins is crypto-collateralized stablecoins, which are backed by a collection of other cryptocurrencies. Stablecoins, for instance, might have several cryptocurrencies like Bitcoin and Ethereum as backing. Since the value of the underlying cryptocurrency is subject to market forces, this sort of stablecoin is seen as less safe than fiat-collateralized stablecoins.[79]

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verifying personal information such as name, address, date of birth, and government-issued identification documents.

[77] *Coinbase.com*. *What is a stablecoin?* [Accessed 5 Jan 2023]. Available at: https://www.coinbase.com/learn/crypto-basics/what-is-a-stablecoin.

[78] *BlockFi.com. A Guide to Stablecoins on BlockFi*. 2022. [Accessed 5 Jan 2023]. Available at: https://blockfi.com/a-guide-to-stablecoins-on-blockfi.

[79] *Ibid.*

Stablecoins have exploded in popularity over the last several years, as many people perceive them as a more realistic use of cryptocurrency technology. Currently, these are not only used as a method of payment, but also for other purposes such as sending money abroad, making loans, and protecting one's wealth from the fluctuations of the market.

3.4.3. Utility Tokens

Before going into the various kinds of tokens, it is first relevant to go over the difference between coins and tokens, which is related to the blockchain. Whereas a coin uses its own blockchain to keep track of all the data, a token uses someone else's coin blockchain as its infrastructure. Instead of developing the blockchain itself—including the necessary code and validation procedures—token developers only need to develop a token that can be used on an existing network.

The proposal for a regulation on Markets in Crypto-assets (MiCA) defines utility tokens as "a type of crypto-asset which is intended to provide digital access to a good or service, available on DLT, and is only accepted by the issuer of that token"[80]. Unlike cryptocurrencies, these tokens are not meant to serve as a means of exchange or payment. Instead, utility tokens exist on smart contract[81] blockchains and have a specific function within

[80] BRUSSELS. EUROPEAN COMMISSION - Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (24 September 2020). Available at: https://eur-lex.europa.eu/resource.html?uri=cellar:f69f89bb-fe54-11ea-b44f-01aa75ed71a1.0001.02/DOC_1&format=PDF

[81] Smart contracts are blockchain-based computer software that activate when predefined situations occur. In most cases, these are utilized to eliminate the need for a third party or the

that system, allowing users to perform certain operations only achievable with the said token. These may include, among a large array of services, software licenses and the right to be a member of a certain community.

As an example, Golem Network Tokens (GNT) are the currency used to access computer resources inside the Golem network, a decentralized platform that enables users to rent out their idle computing resources to others[82]. Another use for these tokens is Kin (KIN), accepted by the Kik messaging software, for the purchase of in-app items like stickers and premium content[83].

3.4.4. Security Tokens

A security token can be defined as a "digital asset that represents ownership or other rights and transfers value from an asset or bundle of assets to a token"[84]. Similar to stocks, bonds, and derivatives of publicly traded corporations, these investment tokens enable investors to recoup their initial money via dividends. This sort of asset may also confer voting rights, as well as the right to receive a certain periodic payment over a specified period (interest).

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delay in the implementation of a contract by automating said contract's execution. When certain parameters are observed, they may also automate a process by immediately moving on to the next step.

[82] *Golem.network.* [Accessed 10 Feb 2023]. Available at: https://www.golem.network/glm.

[83] *Kik.com.* [Accessed 10 Feb 2023]. Available at: https://kik.com/kin/.

[84] Majaski, Christina - *Cryptocurrency Security Token: Definition, Forms, Investing In*. [Last updated May 27, 2022; accessed 10 Feb 2023]. Available at: https://www.investopedia.com/terms/s/security-token.asp.

For instance, real estate tokens represent a claim to real estate, such as a house or a plot of land, which might be useful for easier transactions and fractional ownership.

3.4.5. Non-Fungible Tokens (NFTs)

Despite its shared coding style with cryptocurrencies like Bitcoin and Ethereum, this type of crypto-asset has few other features in common with digital tokens.

The trait of "fungibility"[85] is shared by both fiat and digital currencies, making them easily tradeable, while maintaining their value. This means that one Euro is always equal to any other Euro in the world, just as much as one Bitcoin is the same as any other Bitcoin existent. As such, it is irrelevant which particular Euro or Bitcoin an individual owns, as they are all worth the same.

The case is different for NFTs. Because of their unique digital signatures, NFTs cannot be converted into or used as a substitute for one another (hence, non-fungible).

When a new NFT is formed, its details are recorded on a distributed ledger, utilizing a method known as "minting". The minting method comprises the creation of a new block, the validation of the NFT's data by an assigned responsible person, and the recording of this data on the ledger.

[85] A product or asset is said to be fungible if it can be readily substituted for another of the same kind. Each unit or item may be exchanged for another of the same kind and value. For instance, money is a fungible asset since one euro may be traded for another euro with the same value.

This procedure frequently requires implementing smart contracts that allocate ownership and regulate the transferability of the NFT.

Each newly created token has a distinct cryptographic fingerprint that is associated with a specific network address. There is a proprietor for every token, and the proprietorship details can be found in a publicly accessible ledger. Each NFT is identifiable and distinguishable from the others, even if thousands of the same thing are created.

For instance, by using NBA Top Shot, a platform created by Dapper Labs in partnership with the US National Basketball Association (NBA), basketball fans may purchase, acquire, and exchange NFTs depicting iconic moments from NBA games that have been licensed by the league. Each Top Shot is a unique digital collectible that verifies the authenticity and ownership of a particular moment[86].

NFTs also find use in the realm of video games. Players of games like Decentraland and The Sandbox may use NFTs to purchase and sell virtual real estate and in-game products, respectively. These NFTs provide gamers with a sense of genuine ownership and agency over in-game items, elevating the sense of immersion and interaction.

For authors and artists, these tokens represent a new revenue stream, while for collectors, they represent a chance to acquire and show off truly one-of-a-kind pieces. Unlike conventional collectibles, NFTs don’t need third parties like auction houses in order to be exchanged between buyers and sellers. This creates fresh possibilities for interaction and commerce between artists and collectors, expanding the potential customer base for the art industry as a whole.

[86] CRYPTOPEDIA - *NBA Top Shot: Pioneering NFT Collectibles in Sports*. [Last updated June 28, 2022; accessed 10 Feb 2023]. Available at: https://www.gemini.com/cryptopedia/nba-topshot-nft-flow-blockchain-nba-moments#section-what-is-nba-top-shot.

3.5. The Issues Raised by Crypto-Assets

Decades of knowledge in "conventional" financial services have guided the development of automatic information reporting models like the US FATCA and the CRS, which have shown positive impacts throughout their existence.

However, the unique nature of crypto-assets as highly mobile digital assets that do not require centralized control, allowing pseudo-anonymity, and sometimes presenting themselves as difficult to evaluate, brought an elevated level of disruption to the financial system.

The main issue deriving from all the characteristics of crypto-assets is that tax authorities are not obtaining sufficient information to keep track of the proceeds that are being gained from those assets. This lack of information may lead to loss of revenue for tax authorities, resulting from tax evasion, and to an unfair treatment between the compliant and the non-compliant taxpayers[87].

Crypto-assets' main taxable event by governments are the capital gains[88] derived from the exchanges of these assets. Said exchanges include both the trading of a crypto-asset into another crypto-asset and the event of using fiat currency to buy crypto-assets and then trading those back into fiat currency[89]. Due to the nature of crypto-assets, the aforementioned exchanges may or may not include a regulated intermediary, meaning that if there is an intermediary involved, tax authorities will obtain information on the transactions through them. Otherwise, without its involvement, access to the transaction details would require the information engraved in the blockchain[90]. For instance, in

[87] *Supra*, note 29.

[88] Capital gains refer to the profit made when a person or company sells a capital asset, such as stocks, real estate, or other investments, for a greater price than its initial cost.

[89] *Supra*, note 29.

[90] *Ibid.*

non-custodial crypto wallets, where users have total access to their private keys and may transfer their assets at any moment, it might be challenging for tax authorities to precisely estimate the worth of these assets and identify their owners. Similarly, with cold wallets, where the assets are offline and often not linked to the internet, it might be difficult for tax authorities to precisely calculate the worth of these assets or identify their owners. This may make it difficult for taxpayers to correctly declare their crypto assets and income, and for tax authorities to enforce tax compliance.

If left unregulated, this absence of information will continue to lead to higher losses of revenue for tax authorities, proportionally to the expansion of the crypto-asset market, which has averaged two digits percentages per year[91].

Currently, the guidelines established in the CRS do not ensure the proper exchange of information regarding crypto-asset transactions. As such, in light of this problem, the OECD was given the task of creating a supplementary compliance framework.

[91] *Ibid.*

4. Crypto-Asset Reporting Framework (CARF)

4.1. Introduction

On March 22nd, 2022, the OECD published its draft version of the "Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard"[92], commonly known as CARF. The document was released as a public consultation, in which the OECD invited all those interested to elaborate and forward their comments.

With this document, the OECD's first goal was to develop "a new global tax transparency framework" that presented "the automatic exchange of tax information on transactions in Crypto-Assets in a standardized manner"[93]. In the second part of the paper, there is also a series of amendments to the CRS, aiming to "bring new financial assets, products, and intermediaries in scope, because they are potential alternatives to traditional financial products while avoiding duplicative reporting with that foreseen in the CARF"[94].

The necessity for a Crypto-Asset Reporting Framework stands from the fact that crypto-assets can be "held without interacting with traditional financial intermediaries and without any central administrator having full

[92] ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT - *Public consultation document: Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard.* (OECD, 2022). Available at: https://www.oecd.org/tax/exchange-of-tax-information/public-consultation-document-crypto-asset-reporting-framework-and-amendments-to-the-common-reporting-standard.pdf.

[93] I*bid.*

[94] I*bid.*

visibility on either the transactions carried out or the location of Crypto-Asset holdings"[95].

On October 10th of the same year, after the approval of its Committee on Fiscal Affairs, the OECD released the complete work, containing the rules and commentary of the CARF and the modifications to CRS.[96] The result is a non-binding initiative that offers guidance and recommendations for the reporting of crypto-asset-related information. It is a non-binding framework designed to enhance openness and uniformity in the reporting of these assets, with the ultimate objective of bolstering investor protection and market integrity.

As such, CARF's guidelines and review revolve around four fundamental pillars:

> "i) the scope of Crypto-Assets to be covered; ii) the Entities and individuals subject to data collection and reporting requirements; iii) the transactions subject to reporting, as well as the information to be reported in respect of such transactions; and iv) the due diligence procedures to identify Crypto-Asset Users and Controlling Persons and to determine the relevant tax jurisdictions for reporting and exchange purposes"[97].

[95] ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT - *Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard*. (Paris: OECD, 2022). Available at: https://www.oecd.org/tax/exchange-of-tax-information/crypto-asset-reporting-framework-and-amendments-to-the-common-reporting-standard.pdf.

[96] *Ibid.*

[97] *Ibid.*

4.2. The Scope of Crypto-Assets to be Covered

OECD, in its CARF, states that crypto-assets are "assets that can be held and transferred in a decentralized manner, without the intervention of traditional financial intermediaries", while focusing on "the use of cryptographically secured distributed ledger technology" as a "distinguishing factor" of crypto-assets[98]. The commonly pointed out issue with this definition is that it proves itself to be very broad.

CARF also defines Relevant Crypto-Assets as "any Crypto-Asset that is not 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"[99]. This means that native cryptocurrencies (such as mined cryptocurrencies), fungible tokens (such as utility tokens, stablecoins, and security tokens), and non-fungible tokens are all examples of relevant crypto-assets under the purview of the CARF.

The Financial Action Task Force[100] (hereinafter, FATF) defines virtual assets as "a digital representation of value that can be digitally traded, or

[98] *Supra*, note 95.

[99] *Ibid*.

[100] In an effort to tackle financial crimes such as money laundering and terrorism financing, the FATF was formed in 1989 as an international organization. The FATF creates global benchmarks and encourages the effective adoption of legal, regulatory, and operational measures to counter these criminal acts. The organization also offers advice and technical support to help nations strengthen their AML/CFT regimes and performs mutual reviews of member countries' compliance with these standards. There are now 39 member nations and jurisdictions in the FATF, along with a number of observer organizations and regional groupings. Its guidelines are generally seen as the reference standard for combating money laundering and funding terrorists worldwide. For additional details, see *fatf-gafi.org. What we do.* [Accessed 15 Feb 2023]. Available at:

transferred, and can be used for payment or investment purposes"[101]. The subtle, yet crucial, difference here is the *"can be used for payment or investment purposes"* portion.

By opting not to include this important parameter, the OECD is opening the doors for reporting on all sorts of transactions, which may not always be of interest to tax authorities. As such, if these transactions do not serve a purpose useful for tax entities' activities and responsibilities, obtaining information on them could actually be a burden for these organizations[102].

Given the case, some entities call for the equalization of CARF's definition to the one given by FATF, seeing that, having such a universal reach, it would be of great value to the crypto financial system to have its core terms uniformized[103].

Consistent definitions across regulatory regimes are crucial for preventing misunderstanding and promoting successful crypto-asset regulation, in my view. It also contributes to the uniform application of regulatory obligations across countries. Thus, it is crucial that the description of a crypto-asset offered

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https://www.fatf-gafi.org/en/the-fatf/what-we-do.html, and *fatf-gafi.org. Who we are.* [Accessed 15 Feb 2023]. Available at: https://www.fatf-gafi.org/en/the-fatf/who-we-are.html.

[101] FINANCIAL ACTION TASK FORCE - *INTERNATIONAL STANDARDS ON COMBATING MONEY LAUNDERING AND THE FINANCING OF TERRORISM & PROLIFERATION: The FATF Recommendations*. (Paris: FATF, 2012-2023). Available at: https://www.fatf-gafi.org/content/dam/recommandations/FATF%20Recommendations%202012.pdf.coredownload.inline.pdf

[102] *Ibid.*

[103] 2TM. *Public comments received on the Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard*. Available at: https://www.oecd.org/tax/exchange-of-tax-information/public-comments-received-on-the-crypto-asset-reporting-framework-and-amendments-to-the-common-reporting-standard.htm.

by the crypto-asset reporting system is closely aligned with the FATF definition of a virtual asset.

4.2.1. Fungible Tokens

4.2.1.1. Stablecoins

The CARF made it clear from the beginning that it intended to cover stablecoins as a reportable asset, by listing this type of token in the crypto-asset definition provided.

However, this decision has been met with some controversial opinions due to the fact that stablecoins are usually viewed as low risk from a tax compliance perspective because of their typically steady value.

Since the rate volatility of these coins is low (due to being backed by a fiat currency, another stable asset, or having a limited supply that is controlled by a computer algorithm), they tend not to serve as an investment-type asset.

That being said, the general recommendation after the public consultation was that stablecoins were excluded from the reporting scope, by classifying them as low risk[104].

[104] ABRDN. *Public comments received on the Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard*. Available at: https://www.oecd.org/tax/exchange-of-tax-information/public-comments-received-on-the-crypto-asset-reporting-framework-and-amendments-to-the-common-reporting-standard.htm.

According to the final guidelines, stablecoins will, sometimes, meet the standards that characterize Specific Electronic Money Products, resulting in their treatment as fiat currencies. This, however, would require stablecoins to be convertible upon request, at par value, meaning that many existing stablecoins would be ineligible.

This can, however, raise some issues. For instance, if a person or business mines stablecoins as a professional activity, they would produce taxable revenue that must be declared to the tax authorities. But, without stablecoins included in the reporting requirements, it may be difficult to monitor and enforce compliance with reporting requirements.

Regulators must find a balance between guaranteeing tax law compliance and lowering the regulatory burden on firms and people. If stablecoins are exempt from the reporting obligations, compliance may be more difficult to monitor and enforce. Instead, if stablecoins are subject to the same reporting requirements as other crypto-assets, it might impose extra administrative obligations on organizations and people participating in stablecoin mining and trading.

From a personal perspective, implementing a focused reporting requirement for stablecoins that focuses on high-risk activities such as stablecoin mining or trading could be an approach. This strategy would allow authorities to monitor compliance while reducing the regulatory burden on firms and people engaged in low-risk stablecoin operations.

4.2.1.2. Utility Tokens

The final version of CARF no longer mentions "Closed-Loop Crypto-Assets", which concerned the commonly known utility tokens, as excluded categories in its "Relevant Crypto-Asset" definition.

The public consultation version defined Relevant Crypto-Asset as "any Crypto-Asset that is not a Closed-Loop Crypto-Asset or a Central Bank Digital Currency", with Closed-Loop Crypto-Asset being specified as one that "a) is issued as a means of payment with Participating Merchants for the purchase of goods or services; b) can only be transferred by or to the issuer or a Participating Merchant; and c) can only be redeemed for Fiat Currency by a Participating Merchant redeeming with the issuer."

Instead, the revised version of the Commentary now states that "certain Crypto-Assets can only be exchanged or redeemed within a limited fixed network or environment for specified goods and services" and if such assets "cannot be transferred or exchanged in a secondary market outside of the closed-loop system, and cannot be sold or exchanged at a market rate inside or outside of the closed-loop, such Crypto-Assets would generally not be able to be used for payment or investment purposes"[105]. However, it also implies that to determine whether the transactions of these assets are to be considered relevant or not, a case-by-case analysis needs to be conducted.

This seems to indicate that utility tokens were a blatant exclusion in the initial version of the CARF but, with the adjusted text, now may be included in some situations.

[105] *Supra*, note 95.

The addition of utility tokens to the revised CARF document underlines the dynamic character of the crypto-asset market and the need for regulatory frameworks to change and adapt appropriately. Yet, the need for a case-by-case investigation to identify whether a utility token fits within the scope of the reporting obligations might generate ambiguity among reporting-required companies. Different interpretations of the same token might result in differing reporting responsibilities for various service providers.

One possible approach would be to give service providers explicit rules or criteria for determining if a utility token is subject to the reporting obligations. These parameters might be based on the token's purpose, its economic function, and the amount of anonymity or pseudonymity it offers its users. This would aid in standardizing the decision-making process and reducing the likelihood of conflicting interpretations of the reporting obligations.

4.2.1.3. Security Tokens

Regarding security tokens, there is also a call for their exclusion from the scope of the CARF, based on the statement that these financial assets will already be addressed under the newly amended CRS[106].

[106] EMA. *Public comments received on the Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard*. Available at: https://www.oecd.org/tax/exchange-of-tax-information/public-comments-received-on-the-crypto-asset-reporting-framework-and-amendments-to-the-common-reporting-standard.htm.

As such, Japan Securities Dealers Association[107] enumerated a set of requirements that, if met, should result in the elimination of the security tokens examined from CARF's reporting.

> "(A) The assets are subject to the CRS so that Reporting FIs comply with the due-diligence and reporting obligations,
>
> (B) Customers cannot exchange and transfer the assets without interacting with reporting FIs and
>
> (C) The reporting FIs have full visibility on the transactions and holdings of the assets at the FIs' financial accounts"

4.2.2. Non-Fungible Tokens (NFTs)

With their popularity and use cases constantly rising, NFTs are expected to become more common, and owning digital items represented by them will likely come to be the norm.

The CARF is very clear on its position regarding NFTs, stating that "non-fungible tokens (NFTs) representing rights to collectibles, games, works of art, physical property or financial documents that can be traded or transferred to other individuals or Entities in a digital manner" are included in the presented definition for crypto-assets[108]. This means that all sorts of

[107] Japan. *Public comments received on the Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard*. Available at: https://www.oecd.org/tax/exchange-of-tax-information/public-comments-received-on-the-crypto-asset-reporting-framework-and-amendments-to-the-common-reporting-standard.htm.

[108] *Supra*, note 95.

NFTs would be subject to reporting under CARF, regardless of their worth or purpose.

If NFTs are to be treated as crypto-assets, this means that every single transaction made using NFTs would be reportable under CARF. This would prove to be excessive and unreasonable, due to the diversity of uses that NFTs may present[109].

With this being the case, several interested parties have accepted OECD's invitation to submit commentaries, vocalizing their concerns regarding the inclusion of this set of tokens.

The FATF defines NFTs as "digital assets that are unique, rather than interchangeable, and that are in practice used as collectibles rather than as payment or investment instruments"[110]. In this sense, the FATF also underlines that, under this definition, NFTs that are collectibles are typically not regarded as virtual assets.

Despite mentioning that "uses of cryptographic technology that are not digital representations of value, are not Crypto-Assets"[111] and even listing some examples, the CARF's definition of crypto-assets still seems to have substantial further reach than the FATF definition, specifically when it

[109] Block Chain Association. *Public comments received on the Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard*. Available at: https://www.oecd.org/tax/exchange-of-tax-information/public-comments-received-on-the-crypto-asset-reporting-framework-and-amendments-to-the-common-reporting-standard.htm.

[110] FINANCIAL ACTION TASK FORCE - *UPDATED GUIDANCE FOR A RISK-BASED APPROACH: VIRTUAL ASSETS AND VIRTUAL ASSET SERVICE PROVIDERS*. (Paris: FATF, 2021). Available at: https://www.fatf-gafi.org/media/fatf/documents/recommendations/Updated-Guidance-VA-VASP.pdf.

[111] *Supra*, note 95.

comes to NFTs which, regardless of their main use not being related to payment or investments, still fall within this definition, by being digital representations of value[112].

While the FATF seems to be applicable to NFTs meant for investment or payment only, the CARF focuses on any NFT, as long as it has value. Rather than being created in isolation, NFTs are often developed by implementing specialized protocols[113] on top of preexisting blockchain networks that are also a store of value. In this sense, all NFTs created on these blockchains possess value, irrespective of the amount[114].

This led to commenting parties[115], in their submissions, to request that, at least the NFTs that qualify as collectibles, are excluded from the

[112] Global Digital Finance. *Public comments received on the Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard*. Available at: https://www.oecd.org/tax/exchange-of-tax-information/public-comments-received-on-the-crypto-asset-reporting-framework-and-amendments-to-the-common-reporting-standard.htm.

[113] For example, Ethereum (one of the most popular networks using blockchain) uses protocol ERC-721 (Ethereum Request for Comments) which is is a data standard for making tokens that are unique and not interchangeable with one another. Producers can use this protocol to create unique NFTs by using smart contracts.

[114] CryptoUK. *Public comments received on the Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard*. Available at: https://www.oecd.org/tax/exchange-of-tax-information/public-comments-received-on-the-crypto-asset-reporting-framework-and-amendments-to-the-common-reporting-standard.htm.

[115] Crypto Council for Innovation. *Public comments received on the Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard*. Available at: https://www.oecd.org/tax/exchange-of-tax-information/public-comments-received-on-the-crypto-asset-reporting-framework-and-amendments-to-the-common-reporting-standard.htm.

definition of crypto-asset, in an effort to reach consistency between the CARF and the FATF's virtual asset guidance[116].

This definition also seems to give CARF a far broader reach than the CRS. Meaning that assets that would otherwise not fall within reportable parameters under the CRS would need to be reported under CARF, due to being represented in the form of NFTs[117].

For instance, one of the examples pointed out is trading cards, which are sold and exchanged all the time, with different cards having different values. It's quite common for sports teams to issue these cards, featuring their own players, in which the top players will be featured on fewer cards, therefore uplifting the value of the cards with such players, due to their scarcity. Since these are usually obtained in bundles of random cards, some people never obtain all the cards and they will end up buying them from other collectors, to complete their set. These transactions are not subject to any taxation under the existing frameworks. However, if transactions of the same sort were to be made using NFTs, these would now be reportable under CARF, regardless of the value or intention, merely because it would be a digital representation of value, rather than a physical one[118].

[116] To better oversee digital assets like cryptocurrencies, the FATF published updated guidelines in June of 2019. As a result of this guideline, providers of virtual asset services (VASPs), including exchanges and wallets, are subject to AML/CFT requirements. This includes conducting customer due diligence, monitoring transactions, and reporting suspicious activities to the relevant authorities. As virtual asset transactions often span international borders, the guidelines also encourage more international collaboration and information exchange. Through its virtual asset recommendations, the FATF aims to counteract the growing threat that virtual currencies represent to the international monetary system.

[117] *Supra*, note 114.

[118] *Supra*, note 109.

In spite of this, it is also worth to highlight a difference between common trading cards and NFTs representing similar transactions. While with regular trading cards, their resale does not implicate any additional profit towards the producer, with NFTs the case is different. When an artist sells an NFT, they may attach a smart contract that sets the conditions of the transaction, including the royalty percentage they will earn from any future sales of the NFT. This implies that even after the first sale, the artist might continue to make money from the sale of their work, a considerable change from the conventional art market in which artists normally get a single payment. From a tax compliance point of view, this raises concerns about making sure that sellers and collectors report and pay the correct taxes on transactions of NFTs and royalties. Since NFTs may be purchased and sold anonymously, there is a possibility that some sellers will fail to disclose their transactions or pay the applicable taxes. In this sense, the reporting of all NFTs transactions, although burdensome, could actually have the desired impact.

Nevertheless, entities like Global Digital Finance[119] called for an equalization of the standards between CARF and the CRS, asking that NFTs are treated based on the asset that they represent, so that, "if the underlying asset would not be reportable under the CRS, it should not be reportable

[119] Global Digital Finance (GDF) is a non-profit trade association created in 2018 to encourage the dissemination of best practices in the digital asset and blockchain industries. The group intends to create a worldwide code of conduct and taxonomy for digital assets, as well as cooperate with regulators and policymakers to ensure that the sector is suitably governed. GDF gathers an array of digital asset industry players, comprising exchanges, custodians, asset managers, technology suppliers, and legal and accounting organizations. For additional details, see *gdf*.io. [Accessed 10 Mar 2023]. Available at: https://www.gdf.io/about/.

under the CARF"[120]. This request is also linked to the principle of technology neutrality.

The above-stated principle is one of the focal points of the European Regulatory Framework for Electronic Communications[121], introduced in 2002. Said rule requires states to make certain that their regulatory authorities "take the utmost account of the desirability of making regulation technologically neutral", meaning that they are not allowed to "impose nor discriminate in favor of the use of a particular type of technology"[122]. As expressed by United States' Secretary of Treasury, Janet Yellen, "the principle of tech neutrality is also applicable to concerns related to tax evasion, illicit finance, and national security"[123], which the CARF appears to not be taking into consideration.

Protocol Labs[124], for example, accuses the CARF of violating this principle, stating that it requests far more reporting than the CRS, asking

[120] *Supra*, note 112.

[121] BRUSSELS. EUROPEAN PARLIAMENT AND COUNCIL OF THE EUROPEAN UNION - DIRECTIVE 2002/21/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive (7 March 2002). Available at: eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32002L0021&from=EN.

[122] *Ibid.*

[123] U.S. Department of the Treasury. Remarks from Secretary of the Treasury Janet L. Yellen on Digital Assets. [Last updated April 7, 2022; accessed 1 Mar 2023]. Available at: https://home.treasury.gov/news/press-releases/jy0706.

[124] Protocol Labs was established in 2014 as an investigation, development, and implementation lab with the intention of making the internet more decentralized and accessible. The group's efforts are directed at creating novel protocols, tools, and applications that make it possible to store and distribute material and maintain identities in a distributed fashion. The organization collaborates with universities, government agencies, and other groups to spread awareness about

that the OECD focuses its tax efforts on the underlying asset, instead of the technology that allows the transaction to be made, or the asset to be held[125]. In this sense, the organization claims that "only digital assets representing actively-traded fungible assets used for payment or investment, and that are ordinarily reported for tax purposes, should be part of the CARF"[126].

NFTs represent a cutting-edge subset of technology that is undergoing fast development, and there seems to be a common fear that imposing strict regulations on this emerging technology would suppress innovation, by preventing new participants from entering the market. At this point, investments in art, collectibles, or music are not the only things people are using NFTs for anymore; they're being used for things like event tickets, experiences, loyalty benefits,[127] and even humanitarian benefits.

Given the case, the Swiss Blockchain Federation[128] highlights the OECD's need to adhere the idea of "function over form," in which the

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the benefits of decentralized technology and encourage their widespread implementation. For more details, see *protocol.ai*. [Accessed 10 Mar 2023]. Available at: https://protocol.ai/about/.

[125] Protocol Labs. *Public comments received on the Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard*. Available at: https://www.oecd.org/tax/exchange-of-tax-information/public-comments-received-on-the-crypto-asset-reporting-framework-and-amendments-to-the-common-reporting-standard.htm.

[126] *Ibid.*

[127] Chamber of digital commerce. *Public comments received on the Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard*. Available at: https://www.oecd.org/tax/exchange-of-tax-information/public-comments-received-on-the-crypto-asset-reporting-framework-and-amendments-to-the-common-reporting-standard.htm.

[128] Swiss Blockchain Federation. *Public comments received on the Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard*. Available at: https://www.oecd.org/tax/exchange-of-tax-information/public-comments-received-on-the-crypto-asset-reporting-framework-and-amendments-to-the-common-reporting-standard.htm.

Organisation would have to switch its focus into NFTs' function, instead of their token type[129].

The Swiss Blockchain Federation also shared the thought that, initially, it would make sense to not include NFTs at all, but rather to specify that they would obey to the CRS/FATCA rules to the degree that they reflected financial assets[130].

CryptoUK[131] shared a more radical thought, asking for NFTs transactions not to be considered in any sort or under any legislation. This organization urged the OECD to opt for a phased approach on the reporting of crypto-assets, with this initial phase focusing only on the reporting of transactions converting cryptocurrency to fiat currency and, perhaps, cryptocurrency to another cryptocurrency. The goal of this request was to permit the NFTs market and technology to evolve and develop freely, without the risk of the CARF slowing this expansion, and, later, revisit the idea of reporting NFTs-related transactions, once there was a higher knowledge of the true tax risks that derive from this asset type.

The same organization had also called for the exclusion of NFT-to-NFT transactions from CARF at an early stage, based on the fact that NFTs may be very illiquid and thus difficult to appraise until converted to fiat currency. As such, it might prove burdensome for CASPs to inform on the value of an NFT-to-NFT transaction if neither of them presents a defined market value[132].

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[129] *Ibid.*

[130] *Ibid.*

[131] *Supra,* note 114.

[132] *Supra,* note 115.

Although the OCDE opted not to change the definition of crypto asset or the scope of NFTs to be covered, from its initial public consultation document, it did introduce the following commentary:

> "NFTs are in many instances marketed as collectibles. This function does, however, by itself not prevent an NFT from being able to be used for payment or investment purposes. It is important to consider the nature of the NFT and its function in practice and not what terminology or marketing terms are used. NFTs that can be used for payment or investment purposes in practice are Relevant Crypto-Assets. Reporting Crypto-Asset Service Providers should therefore consider on a case-by-case basis whether an NFT cannot be used for payment or investment purposes, taking into account the commonly accepted usage of the Crypto-Asset. NFTs that are traded on a marketplace can be used for payment or investment purposes and are therefore to be considered Relevant Crypto-Assets."[133]

From this it can be deduced that the urges of the commentating parties were not taken under great consideration as, not only will many NFTs still be considered as serving for investment purposes, and thus, reportable, despite their low value, but it will also require every case to be analyzed in order to determine the purpose of the asset, which might result in a huge burden for the providers.

Additionally, this can also raise some concerns due to uncertainty. The principle of legal security, often referred to as the principle of legal certainty, is a basic legal principle that alludes to the stability and predictability of the legal system. It guarantees that people and organizations may trust on the law to guide their actions and choices, as well as that the law is administered consistently and impartially. According to this principle, individuals and organizations should be able to foresee the results of their activities based on the stability and consistency of the law.

[133] *Supra*, note 95.

However, even though the legal security principle stresses the need of predictability and consistency in the legal system, it does not demand a rigid or inflexible approach to decision-making. In truth, the principle of legal security acknowledges that each case may include unique circumstances requiring a thorough and specialized evaluation.

A case-by-case decision-making procedure may thus be compatible with the principle of legal security so long as it is governed by clear and consistent legal principles and judgments are made fairly and impartially, without discrimination or arbitrary decision-making. Yet, it is essential that the decision-making process be clear so that people and organizations can comprehend how choices are reached and have the option to contest conclusions they deem to be unjust or contradictory with the law.

4.3. The Intermediaries in Scope

The CARF deems as Reporting Crypto-Asset Service Providers "any individual or Entity that, as a business, provides a service effectuating Exchange Transactions for or on behalf of customers, including by acting as a counterparty, or as an intermediary, to such Exchange Transactions, or by making available a trading platform"[134].

The word "effectuating" seems to cause apprehension as, in a vastly inventive and product-developing industry, depending on how one interprets said word, a financial institution might be considered subject to CARF if it has any interaction at all with virtual assets. As such, in the context of a transaction, this term may prove to be excessively broad and imprecise, with the foreseeable consequence being an inconsistent application of the regulations across countries due to the possibility of CASPs understanding the guidelines distinctly[135].

The OECD is a powerful worldwide organization and, as such, the rules it chooses to define have the potential to affect a vast number of countries. With this in mind, some organizations[136] argue that it might not be the wisest move to immediately start with a framework that tries to cover everything and everyone. Instead, the OECD should perhaps begin with a smaller, more targeted scope, and then start increasing its reach, as necessary[137]. With a scope

[134] *Supra*, note 95.

[135] *Supra*, note 114.

[136] BAS. *Public comments received on the Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard*. Available at: https://www.oecd.org/tax/exchange-of-tax-information/public-comments-received-on-the-crypto-asset-reporting-framework-and-amendments-to-the-common-reporting-standard.htm.

[137] *Ibid.*

this broad, the CARF might actually produce the opposite effect of it aims to do.

Given the fact that crypto-assets function solely on the internet and, therefore, consumers may utilize service providers from anyplace with ease, there is also a raising concern that by bringing some service providers within the purview of legislation, clients who seek to avoid such control may shift their operations to non-regulated service providers. Whether they opt for providers from different countries or devise a means to conduct their operations with no service providers at all, this can result in both the weakening of the legislation and a disadvantage for the providers compliant with the CARF[138].

Additionally, the fact that crypto-assets are web-based, can also lead to issues due to a subjective application in which various service providers may interpret and implement the reporting obligations differently, depending on their own subjective judgements of the relevant jurisdiction. Finding the applicable jurisdiction may be difficult, particularly when clients operate in many countries or transactions happen in a decentralized way. This may result in inconsistent and incorrect reporting, as well as significant legal issues and regulatory problems.

[138] Bitonic. *Public comments received on the Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard*. Available at: https://www.oecd.org/tax/exchange-of-tax-information/public-comments-received-on-the-crypto-asset-reporting-framework-and-amendments-to-the-common-reporting-standard.htm.

4.3.1. The Scope Based on Jurisdiction

Under paragraph A of section I: "Obligations of Reporting Crypto-Asset Service Providers", the CARF defines the requirements that make a Reporting CASP obliged to comply with the reporting and due diligence procedures described in its following sections. According to this paragraph, the following Entities are considered as subjects to CARF's legal obligations:

- Entities or individuals resident for tax purposes in a certain Jurisdiction;
- Entities that are incorporated or organized under the laws of a certain Jurisdiction and either has legal personality in said Jurisdiction or have an obligation to file tax returns or tax information returns to the tax authorities in the Jurisdiction with respect to the income of the Entity;
- Entities managed from a certain Jurisdiction; or
- Entities or individuals that have a regular place of business in a certain Jurisdiction.

Based on this list, the applicability of CARF appears to be an extension of the approach taken in the CRS, which only focuses on residence and branch[139]. The Swiss Bankers Association calls for the

[139] In the CRS, a Participating Jurisdiction Financial Institution is defined as "(i) any Financial Institution that is resident in a Participating Jurisdiction, but excludes any branch of that Financial Institution that is located outside such Participating Jurisdiction, and (ii) any branch of a Financial Institution that is not resident in a Participating Jurisdiction, if that branch is located in such Participating Jurisdiction." – Supra, note

convergence of CRS and CARF requirements so that Reporting Entities are subject to these pieces of legislation in no different jurisdictions[140].

However, as some commenting parties ask for leaner duties for the Reporting CASPs, others worry that the regulation does not cover enough. Specifically, there is a concern that non-participating jurisdictions will actually start attracting CASPs that are looking to evade the reporting and due diligence obligations. Although non-participating jurisdictions are not new (as, for instance, not every country as adopted CRS since its implementation), the problem is deeper when it comes to crypto-assets since these are far more movable and easily transferable than traditional assets held by financial institutions. As such, to ensure that CARF is fair for all players and has the best chance of succeeding, it could be wise to require CASPs that act in non-participating jurisdictions to provide information about all of its clients in participating jurisdictions, to the competent authorities of those same jurisdictions[141].

[140] Swiss Bankers Association. *Public comments received on the Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard*. Available at: https://www.oecd.org/tax/exchange-of-tax-information/public-comments-received-on-the-crypto-asset-reporting-framework-and-amendments-to-the-common-reporting-standard.htm.

[141] *Supra,* note 112.

4.4. Reporting Requirements

4.4.1. Introduction

As the name indicates, CARF's Section II: Reporting requirements, describes the reporting requirements that Reporting CASPs are subject to, under this legislation.

According to these, in each reporting period, Service Providers have the responsibility to provide the following information, with concerns to each Reporting User or Reporting Person:

1) the name, address, jurisdiction(s) of residence, TIN(s) and date and place of birth (in the case of an individual) of each Reportable User and, in the case of any Entity that, after application of the due diligence procedures, is identified as having one or more Controlling Persons that is a Reportable Person, the name, address, jurisdiction(s) of residence and TIN(s) of the Entity and the name, address, jurisdiction(s) of residence, TIN(s) and date and place of birth of each Reportable Person, as well as the role(s) by virtue of which each Reportable Person is a Controlling Person of the Entity;

2) the name, address and identifying number (if any) of the Reporting Crypto-Asset Service Provider;

3) for each type of Relevant Crypto-Asset with respect to which it has effectuated Relevant Transactions during the relevant calendar year or other appropriate reporting period:
    i) the full name of the type of Relevant Crypto-Asset;
    ii) the aggregate gross amount paid, the aggregate number of units and the number of Relevant Transactions in respect of acquisitions against Fiat Currency;
    iii) the aggregate gross amount received, the aggregate number of units and the number of Relevant Transactions in respect of disposals against Fiat Currency;
    iv) the aggregate fair market value, the aggregate number of units and the number of Relevant Transactions in

respect of acquisitions against other Relevant Crypto-Assets;

v) the aggregate fair market value, the aggregate number of units and the number of Relevant Transactions in respect of disposals against other Relevant Crypto-Assets;

vi) the aggregate fair market value, the aggregate number of units and the number of Reportable Retail Payment Transactions;

vii) the aggregate fair market value, the aggregate number of units and the number of Relevant Transactions, and subdivided by Transfer type where known by the Reporting Crypto-Asset Service Provider, in respect of Transfers to the Reportable User not covered by subparagraphs (3)(b) and (d);

viii) the aggregate fair market value, the aggregate number of units and the number of Relevant Transactions, and subdivided by Transfer type where known by the Reporting Crypto- Asset Service Provider, in respect of Transfers by the Reportable User not covered by subparagraphs (3)(c), (e) and (f); and

ix) the aggregate fair market value, as well as the aggregate number of units in respect of Transfers by the Reportable Crypto-Asset User effectuated by the Reporting Crypto-Asset Service Provider to wallet addresses not known by the Reporting Crypto-Asset Service Provider to be associated with a virtual asset service provider or financial institution.[142]

[142] *Supra*, note 95.

4.4.2. Fair Market Value

The CARF, in its public consultation version, stated that it required "reporting with respect to Relevant Transactions in Crypto-Assets based on their fair market value, determined and reported in a single Fiat Currency at the time of each Relevant Transaction"[143].

These requirements raised several concerns, beginning with the obligation to report on a transaction-by-transaction basis. Said constraint was viewed as a very time-consuming and laborious task for financial institutions to perform, given the fact that the crypto market is home to millions of clients and holds up to billions of transactions[144].

The fair market value (hereinafter, FMV) was also seen as an issue. The IFRS 13[145] defines fair value as "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date"[146]. Although FMV is a usual concept in regular marketplaces, the involvement of crypto brings new challenges to the table.

Starting with the fact that the crypto market is filled with different types of crypto-assets and their distinct nature can translate into higher or

[143] *Supra*, note 92.

[144] *Supra*, note 140.

[145] The International Accounting Standards Board (IASB) released IFRS 13 as an accounting standard that contains guidelines on how to assess and declare the fair value of assets, liabilities, and equity instruments. Fair Value Measurement is the full title of IFRS 13, which applies to all businesses that generate financial accounts in accordance with International Financial Reporting Standards (IFRS).

[146] *Ifrs.org*. 2022. [Accessed 1 Mar 2023]. Available at: https://www.ifrs.org/issued-standards/list-of-standards/ifrs-13-fair-value-measurement/

lesser liquidity. For instance, NFTs are illiquid tokens that are typically auctioned off and whose cost is only definable at spot prices[147]. In these cases, the recommendation is to consider not the FMV but rather the 'last known value' or 'last traded value'[148].

It is also a well-known reality that crypto markets can be extremely volatile and even within the same day prices can fluctuate quite a lot. Adding to this, the issue that some crypto-assets can only be bought with other crypto-assets and do not possess a fiat pair could lead to a huge burden on CASPs due to the copious amounts of information needed to determine the fiat currency equivalents. And even if the said burden is to be overlooked, inconsistencies would arise, as various Service Providers might utilize varying valuation methodologies (as simple as a different time of day as the basis for their calculations[149]), obtaining distinct FMVs.

To mitigate these effects, the CARF could, for instance, allow Reporting CASPs to effectuate the reports on the transactions in the cryptocurrency that they were made or, at least, in the most common cryptocurrencies like Bitcoin (BTC) or Ethereum (ETH). Tax authorities

[147] The spot price can be defined as the current price at which vendors and purchasers value an asset, meaning that said asset must be immediately available for purchase of sale. For additional details, see: Park, Meeyeon - *Spot Price: The current market price of a security, commodity, or currency*. [Last updated February 24, 2023; accessed 1 Mar 2023]. Available at: https://corporatefinanceinstitute.com/resources/wealth-management/spot-price/.

[148] *Supra*, note 106.

[149] Chiomenti. *Public comments received on the Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard*. Available at: https://www.oecd.org/tax/exchange-of-tax-information/public-comments-received-on-the-crypto-asset-reporting-framework-and-amendments-to-the-common-reporting-standard.htm.

would then keep their own conversion rate, thus granting more uniformized results[150].

Nonetheless, despite the various concerns and recommendations, the final version of the CARF still requires the reporting of Relevant Transactions in Crypto-Assets based on their fair market value.

4.4.3. Reportable Retail Payment Transactions

The CARF states that it applies to "instances where a Reporting Crypto-Asset Service Provider processes payments on behalf of a merchant accepting Crypto-Assets in payment for goods or services"[151], i.e. its scope includes Reportable Retail Payment Transactions.

Many commenting parties viewed this reporting requirement as out of proportion and unequal to the management of any other methods of payment, as, prior to CARF, there were no other instances in which financial institutions were required to report payments related to goods and services[152].

There were also raised concerns regarding the difficulty that CASPs could have in collecting the information necessary. Since the retail vendors are not required to perform due diligence procedures and do not have reporting obligations, the burden to collect all the required information would fall on the CASPs. However, in these scenarios, the Service

[150] *Supra*, note 112.

[151] *Supra*, note 92.

[152] *Supra*, note 106.

Providers are merely third parties in the relationship between the buyer and the seller and, as such, having to gather documentation on the merchant's clients could prove to be very invasive of the merchant-customer dynamic[153].

In order to mitigate this burden, the CARF introduced a *de minimis* threshold of US$50,000, meaning that CASPs will only have to perform due diligence and reporting procedures on transactions that exceed that amount.

This 50,000 USD threshold for due diligence and reporting processes on crypto-asset transactions may be seen as a reasonable compromise between the need to counter money laundering and terrorist funding and the burden on service providers to comply with these requirements.

Yet, this threshold may also provide possible difficulties. For instance, a transaction of USD 49,000 may not reach the threshold for reporting, but it might still be part of a wider plot to launder money or fund terrorism. Setting a precise amount threshold for reporting might thus result in certain transactions slipping through the gaps, so enabling illicit activity to go unnoticed.

In addition, criminals may attempt to evade the reporting threshold by dividing bigger transactions into smaller ones to escape detection. This might further complicate the regulatory process for service providers, who would have to monitor a multitude of smaller transactions to verify compliance with reporting obligations.

Using a risk-based approach to compliance might be an option for resolving challenges connected to the threshold for due diligence and

[153] *Supra*, note 112.

reporting requirements for crypto-asset transactions. This would require service providers to evaluate the amount of risk associated with each transaction based on variables such as the character of the persons involved, the origin and destination of the money, and the purpose of the transaction.

Under this approach, service providers would continue to be obliged to comply with reporting requirements for transactions over a specific threshold, but they would additionally be requested to execute additional due diligence processes for high-risk transactions below the level. This might aid in identifying and reporting suspected money laundering and terrorist funding operations, regardless of the magnitude of the transaction.

4.4.4. Wallet Addresses

Under CARF's public consultation document, tax authorities were given the option to obtain reports on the transactions made to external wallet addresses that were not associated with any Reporting CASP. The purpose was to heighten the awareness of crypto-assets that were transferred or kept outside the purview of intermediaries.

However, this requirement was immediately met with controversy, as many of the commenting parties were quick to express their disagreement, pointing out that it was a huge expansion of authority beyond the scope of CRS, from a data-privacy standpoint. The concern was that creating a centralized list of all wallet addresses would not only pose a significant violation of individuals' privacy rights but also put users at risk since if there ever was a leak of such information, it could cause them to be coerced into

transferring their assets, which would not be subject to the same safeguards as the assets regularly kept at financial institutions[154].

Furthermore, it was also pointed out that customers can have multiple wallet addresses meaning that CASPs could have to provide reporting on hundreds. or even thousands, of wallet addresses for a single client[155].

Given the feedback received from all the submissions, the OECD's official CARF no longer demands this requirement. As an alternative, CASPs must now disclose any aggregate transfers to wallet addresses that have never been affiliated with another Service Provider or financial institution (i.e., addresses that are not reported under any other Provider).

Moreover, CASPs have to maintain those external wallet addresses for a duration of five years. This seems to imply that although tax authorities may still request this data, it will be done on the basis of exchange of information upon request, rather than large amounts of unnecessary data.

Although the five years requirement might still seem burdensome, it is crucial to keep in mind that crypto-assets are a relatively new and fast-growing field, and that tax authorities may want a specific quantity of data to guarantee compliance with tax rules. Furthermore, the obligation to keep external wallet addresses is consistent with the concept of proportionality, since it aims to ensure that tax authorities have access to the required information while reducing the burden on CASPs.

Compliance costs may also be an issue for CASPs, as they may be required to invest in extra resources and systems to satisfy reporting obligations. It is crucial to emphasize, however, that compliance expenses are a typical aspect of conducting business, and CASPs have a duty to

[154] *Supra*, note 114.

[155] *Supra*, note 119.

comply with relevant laws and regulations. Furthermore, it is worth to keep in mind that the CARF was developed via a public consultation process that incorporated feedback from a number of stakeholders, including CASPs. Thus, it is expectable that, when developing the current framework, consideration was put into a balance between maintaining compliance with tax laws pertaining to crypto-assets and reducing the burden, and proportion reporting requirements to the risks associated with various forms of crypto-assets. Additionally, the CARF's reporting requirements may provide other advantages, such as enhanced transparency and accountability, which may be appealing to consumers and investors.

Overall, compliance expenses may be a concern for CASPs, but they must be seen in the perspective of supporting a healthy and sustainable crypto-asset market and maintaining compliance with tax regulations. They may be required to invest in extra resources and processes in order to comply with the CARF's reporting standards, but this has the possibility of bringing certain advantages and contribute to the industry's long-term success.

4.5. Due Diligence Procedures

In order to help Reporting CASPs identify their Reportable Crypto-Asset Users, gather valuable information, and establish the pertinent tax jurisdictions, the CARF includes the due diligence procedures to be followed by the Service Providers, which are modelled after the ones

already applicable to de CRS and the 2012 FATF Recommendations (updated in 2019), concerning AML/KYC responsibilities.

According to these procedures, when forming a financial relationship with an Individual Crypto-Asset User or with an Entity Crypto-Asset User (except Excluded Persons[156] or Active Entities), the Reporting CASP is responsible for obtaining a self-certification that facilitates the determination of their residence(s) for tax purposes, while also having the responsibility to verify the reasonableness of said self-certification. With regards to Pre-existing Individual or Entity Users, Service Providers instead possess a deadline of 12 months after the effective date of CARF's rules.

Additionally, when it comes to Entity Crypto-Asset Users, with the exception of Excluded Persons, the Reporting Service Provider must also determine if the Entity has one or more Controlling Persons, who are defined as "the natural persons who exercise control over an Entity" under CARF's Section IV: Defined terms. This can be achieved by depending on the information already available due to AML/KYC Procedures, if those are consistent with the June 2019 updated version of the 2012 FATF Recommendations, or procedures similar to those. Upon collecting information on the Controlling Persons of an Entity, the Reporting CASPs will also have to verify if they are Reportable Persons, i.e., if they are considered as residents in a Reportable Jurisdiction, by counting on the self-certification provided by the Entity or requesting a new one from the Controlling Person.

[156] The CARF defines an Excluded Person as "(a) an Entity the stock of which is regularly traded on one or more established securities markets; (b) any Entity that is a Related Entity of an Entity described in clause (a); (c) a Governmental Entity; (d) an International Organisation; (e) a Central Bank; or (f) a Financial Institution other than an Investment Entity described in Section IV E(5)(b)".

The self-certifications gathered for either Individual Crypto-Asset Users or Controlling Persons must be properly signed and dated and contain the first and last name of the person it pertains to, their residence address and jurisdiction(s) of residence for tax purposes, their date of birth and, lastly, their Tax Identification Number (TIN)[157] concerning each Reportable Jurisdiction.

As for Entity Crypto-Asset Users, the self-certification must also be duly signed and dated, but the necessary information differs. In this case, besides the legal name of the Entity, the address, the jurisdiction(s) of residence for tax purposes, and the TIN concerning each Reportable Jurisdiction, the Entity must also provide a self-certification for each of its Controlling Persons (unless the Controlling Persons have provided one by themselves) as well as the roles exercised by them of the Entity. Additionally, in the case of Active Entities or Excluded Persons, information must be provided to justify the standards met to be considered as such entities.

After successfully collecting the necessary self-certifications, the Reporting CASP will have to verify its reasonableness. The CARF considers that a Service Provider has confirmed the reasonableness of the self-certification if "in the course of establishing a relationship with an Individual Crypto-Asset User and upon review of the information obtained in connection with the establishment of the relationship (…), it does not know or have reason to know that the self-certification is incorrect or

[157] Regardless of the user being an Individual or an Entity, the Tax Identification Number requirement is only applicable in Jurisdictions that issue and/or require the collection of that same number. A breakdown of the domestic policies regulating the issue, structure, usage, and validity of TINs or their functional counterparts in the countries, can be found at: https://www.oecd.org/tax/automatic-exchange/crs-implementation-and-assistance/tax-identification-numbers/

unreliable". This means that Service Providers are not required to be conducting extensive research on tax laws, but rather do a straightforward fact-check on the information provided. For instance, the CARF lists as examples cases where the self-certification obtained contains conflicting information regarding residence addresses or the proper residence for tax purposes.

If a self-certification does not pass the reasonableness test, it is the Reporting CASP's duty to either acquire a new, valid, self-certification, or an explanation[158] (accompanied by documentation, where necessary) to justify the conflicting information, before allowing Crypto-Asset Users to make Relevant Transactions through its services.

Lastly, in the event of a change of circumstances, after the Reporting CASP becomes aware, or should become aware, that the initial self-certification obtained is no longer accurate, it can no longer depend on that self-certification and has the obligation to request a new one, or, as an alternative, an explanation and documentation attesting that the initial self-certification remains valid.

[158] The CARF provides examples of explanations that would be acceptable, such as if the individual: "(1) is a student at an educational institution in the relevant jurisdiction and holds the appropriate visa (if applicable); (2) is a teacher, trainee, or intern at an educational institution in the relevant jurisdiction or a participant in an educational or cultural exchange visitor program, and holds the appropriate visa (if applicable); (3) is a foreign individual assigned to a diplomatic post or a position in a consulate or embassy in the relevant jurisdiction; or (4) is a frontier worker or employee working on a truck or train travelling between jurisdictions".

5. Upcoming Regulatory Developments[159]

Implementation of the CARF on a worldwide scale is anticipated to begin around 2024 or 2025. By that time, the OECD, the European Union, and the national governments will all need to have published and agreed upon some crucial aspects.

Given the previous procedure adopted around the application of the CRS, it is likely that the OECD will provide further guidelines and templates for the arrangements between national bodies that establish the foundation for the exchange of information.

At the EU level, the next stage is the revision of the DAC to accommodate the CARF and updated CRS criteria.

On December 8th, 2022, the European Commission suggested establishing a reporting regime that would compel CASPs to declare transactions performed by EU clients. The progressively revised Directive, generally recognized as DAC8, will be accompanied by each Member State's implementation into domestic law.

As stated in official European Parliament documentation, the newest amendment of the Directive will be focused on "the exchange of information about the gains and profit made from crypto-transactions by EU users"[160]. As such, the DAC8's major purpose is to improve the automated sharing of information between EU tax authorities, including information on bank accounts, cross-border tax arrangements, and multinational firms' country-by-country reporting. This

[159] Under this topic, only papers until 31/01/2023 were analyzed.

[160] Baert, Pieter - *Tax transparency rules for crypto-asset transactions (DAC8)*. 2023. Available at: https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/739310/EPRS_BRI(2023)739310_EN.pdf

information exchange is designed to aid tax authorities in detecting and preventing tax evasion and avoidance, as well as ensuring that taxpayers pay their fair share of taxes.

Although being consistent with the CARF, the DAC8 still presents a few different aspects when compared to the preceding framework.

In its present form, the DAC8 mandates all Reporting CASPs, regardless of size or jurisdiction, to record transactions involving EU customers. The proposal applies to both domestic and international transactions and requires EU and non-EU Service Providers with EU customers to register in a member state in order to meet their reporting duties. The CARF, on the other hand, is only applicable to CASPs with a nexus on a participating jurisdiction that extends further than the basic supply of services inside the market[161].

Another key aspect is the blockage of transactions. Under the Directive if a crypto-asset user fails to supply the needed information within sixty days after two reminders and the first request by the Reporting CASP, the CASP shall prevent the user from engaging in exchange activities. Thus, the Reporting CASP must design a procedure to guarantee that it follows up on the information request, watches the timing, and stops the transactions (automatically). Furthermore, to comply with this requirement, Reporting CASPs must evaluate their legal duties to ensure that they are not in violation of contract with their customer. Although the CARF did contain a parallel blocking initiative in its public consultation (with a ninety-day period), it was later eliminated and no longer exists in the final version[162].

[161] Michel, Bob. *Everybody's got something to hide except me and my NFT monkey: analysis of the European Commission's DAC8 proposal on automatic exchange of crypto-asset information.* 2023. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4323158

[162] *Ibid.*

Additionally, according to the DAC8, Reporting CASPs are required to notify each affected customer that information about them will be gathered and disclosed to the appropriate authorities as soon as possible, but no later than when the information is actually reported. The Reporting CASPs must also include all information needed of data controllers by the General Data Protection Regulation. This rule is comparable to the notification obligation for CRS clients in several countries.

Finally, the Directive also stipulates minimum penalties ranging from €20,000 to €500,000 for Reporting CASPs that have not completed reporting after two legitimate administrative reminders, or when more than 25% of the supplied information includes incomplete, inaccurate, or misleading data. Thus, the Reporting CASPs must have procedures in place to guarantee that all pertinent information is acquired, is correct, and is properly documented. Although this will be a minor adjustment to the current FATCA and CRS regulations and processes of FIs, it may prove to be a significant burden for companies that were not subject to FATCA and CRS but are caught by CARF and DAC 8.

The DAC8 is set to enter into force on 1 January 2026, after its submission European Parliament for consultation and to the Council for adoption[163].

[163] *Ec.europa.eu. Taxation: New transparency rules require service providers to report crypto-asset transactions*. [Last updated December 8, 2022; accessed 15 Jan 2023]. Available at: https://ec.europa.eu/commission/presscorner/detail/en/ip_22_7513

6. Conclusion

This dissertation's objective was to examine the newly implemented Crypto-Asset Reporting Framework. While it is too premature to draw definitive conclusions on the effects this regulation's implementation will have on tax compliance, certain observations may already be drawn.

To begin with, the exchange of tax information has evolved significantly over the last several decades, as a result of a variety of reasons, such as globalization and digitization.

Secondly, the introduction of crypto-assets has presented tax authorities and regulatory agencies with new issues, necessitating the creation of new reporting requirements and regulatory frameworks.

Furthermore, different forms of crypto-assets have distinctive characteristics and issues, necessitating distinct legal requirements for monitoring and reporting their actions.

Regarding OECD's CARF itself, it constitutes a well-thought-out collection of recommendations for reporting crypto-asset transactions. It gives important advice on how to report different forms of crypto-assets and their numerous use cases, as well as the many parties engaged in crypto-asset transactions.

The framework recognizes the need for harmonization and consistency in reporting obligations, which may assist minimize compliance costs and improve regulatory effectiveness. According to the CARF, a lack of uniformity in regulatory procedures and reporting requirements across jurisdictions might create impediments to effective crypto-asset market monitoring and supervision. As such, it provides a uniform way to reporting crypto-asset transactions for tax and regulatory reasons to solve this problem. This involves defining important crypto-asset words and ideas, identifying the persons participating in crypto-asset transactions, and outlining the sorts of transactions that should be reported. The

framework also contains instructions on how to detect and report questionable crypto-asset transactions.

Yet, the CARF may be too sophisticated and technical for certain organizations and people, especially smaller participants in the crypto-asset market, to comprehend and comply with. Additional specific examples and case studies might aid in demonstrating how the reporting requirements work in reality. Moreover, the framework may not capture all of the subtleties and complexity of the rapidly expanding crypto-asset market, resulting in obsolete or inadequate reporting obligations.

Overall, the OECD's CARF is a step in the right direction toward better clarity and openness in the crypto-asset market, but it may need to be refined on an ongoing basis to keep up with market changes.

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