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The Digital Ecosystem Dilemma: Some Legal and Tax Inputs on Non-Fungible Tokens and Innovative 'Disruptive' Ways to Handle Future Tax Uncertainties

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BACKGROUND

Businesses run on information. The faster it's received and the more accurate it is, the better. Blockchain is an ideal information tool because it provides immediate, shared, and completely transparent information stored on an immutable ledger that, in some cases, only permissioned network members can access. A blockchain network can track orders, payments, invoices, accounts, production processes, and much more. And because members share a single view of the truth, they can see all details of a transaction end to end, giving them increased confidence and opening up new efficiencies and opportunities. In addition, it's also tamper-proof thanks to sophisticated encryption methods. This, together with some other features (i.e., NFTs), but also smart contracts, cryptocurrencies and artificial intelligence enable a fusion of the real and virtual worlds and so creates a ***digital ecosystem***. On the other hand while traditional banking relies on centralized institutions, decentralized finance is setting the stage for the next financial revolution since it has the potential to transform well-established financial institutions and bring lower costs, faster execution of transactions, improved transparency, auditability of operations, and other benefits. Particularly relevant will be the disruption of payments for banks, as well as for customers, by reducing the cost and time taken to transfer money. The technology is ready to allow faster and more cost-effective processing of financial transactions. This is done through a decentralized, distributed ledger that grants its users with autonomy, and security. Nevertheless some of these disruptive features, and in particular the phenomenon of non-fungible tokens (NFTs), comparing and contrasting them with cryptocurrency is heading to some legal and tax uncertainties but also, on the other hand, to some important investing opportunities. Therefore today, the tax industry operates within an extremely complex ecosystem where conflicts disparities often arise due to discrepancies incongruity between at the state, national, regional, and global legislation. Technology in combination with professional tax services are necessary to fulfill taxpayers' reporting and planning needs.

INTRODUCTION TO NFTs

NFTs are best understood as computer files the main purpose of which is proof of ownership and authenticity. They display unique characteristics that make them one of the latest hypes in the blockchain sphere, with their influence extending into the entertainment (music and movies), luxury, and sports industries, and many others. Blockchain is a form of distributed ledger technology (DLT) pursuant to which transactions are conducted in a peer-to-peer fashion and broadcasted to the entire set of system participants, all or some of whom work to validate them in batches or "blocks."

In their basic form, like cryptocurrency, NFTs are cryptographic files that exist on a blockchain — a

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This article may be cited as Antonio Lanotte, *The Digital Ecosystem Dilemma: Some Legal and Tax Inputs on Non-Fungible Tokens and Innovative 'Disruptive' Ways to Handle Future Tax Uncertainties*, 63 Tax Mgmt. Memo. No. 17 (Aug. 15, 2022).

tamper-resistant digital public ledger — and have no intrinsic value. Unlike cryptocurrency, NFTs are nonfungible, i.e., one NFT is not worth the same as another NFT. As such, they cannot be exchanged for one another (by contrast, Bitcoin is fungible). Each NFT has a unique valuation, which accrues based on the media attached to it (such as images, videos or GIFs), as well as the law of supply and demand. The value is, therefore, based on the owner's/investor's perception of value. As such, NFTs are tokens that can function like a deed and be exchanged on a marketplace in a bid or peer-to-peer sale where the price paid establishes the valuation. In contrast to traditional marketplaces, such as eBay, users can verify the authenticity of the digital assets they are buying by tokenizing nonfungible assets on the blockchain. Thanks to their unique status, the appeal of NFTs to collectors, in terms of the mechanism applicable to their authentication, is that it allows one buyer to stand alone as the sole owner, creating the phenomenon of scarcity.

In this light, NFT technology has the power to provide original creators (authors, musicians, filmmakers, journalists and artists) with a stream of revenue, such as royalties, from their works, whereas previously, despite having intellectual property (IP) rights, their creations were ''freely'' accessible through the Internet without any compensation. Thanks to smart contract technology, NFTs can be programmed to share a percentage of the revenues with the original artist when the work is (dis)played. Further, NFTs can be used for alternative fundraising schemes, such as the release of ''VIP'' ticketing — in other words utility tokens, live auctions of NFTs capturing exciting moments of sporting events or musical performances, as well as licensing agreements. NFTs, as they exist on platform chains, can be sold in the secondary market. The potential for steady revenue streams can incentivize artists, athletes, and filmmakers to continue to support their NFT products, increasing their value.

Some Legal and Tax Aspects of NFTs

Assets are digitally transferrable between two parties in the blockchain ecosystem. This characteristic makes them commonly referred as ''tokens.'' Tokens can be assigned specific uses and properties. An NFT contains a unique identification code and metadata that distinguishes it from another NFT. While excitement relating to NFTs is growing exponentially and on a global level, the legal framework continues to evolve. With reference to the European Union, the Markets in Crypto-Assets (MiCA) law, Europe's first attempt at comprehensive policy around cryptocurrencies, is also intended to regulate NFTs.

In launching an NFT project or establishing a secondary market, various legal aspects need to be considered in order to avoid any possible issues before and after setting up the potential investment. Depending on the applicable domestic regulation (such as financial regulations) tokens can be categorized as, for example, payment, utility, and asset tokens. Hybrid forms are possible. The term ''cryptocurrency'' emerged as a reference to a bitcoin-style digital currency the ownership of which (upon being issued and following any subsequent transfers) is recorded as a chain of digital signatures on a blockchain, secured by cryptography. The ''coin'' carries value that can be transferred, although it can be very unstable since that value is not supported by underlying assets, economic activity or a central authority, such as a bank. For that reason, it is often considered to be a digital or crypto asset rather than (official) currency.

Anti-Money Laundering — AML

The EU Fifth Anti-Money Laundering Directive (AMLD) (strengthened by the Sixth AMLD, which came into effect on December 3, 2020, and must be implemented by financial institutions by June 3, 2020) imposes on all ''Art Market Participants'' a plethora of new duties. Most notable among these is the requirement to carry out Client Due Diligence to verify a purchaser's identity (KYC) and their source of funds in advance of any transaction.

Royalties

Smart Contracts written into the code of NFTs effect the distribution of funds for the payment of royalties to the creator each time the creator's work of art is ''used.'' These automated royalty payments and their corresponding rights may, however, vary and are jurisdiction dependent. For example, the United States does not recognize resale rights relating to creative works, so the law provides no recourse for unpaid resale royalties in the United States as it does in approximately 70 other jurisdictions, including the United Kingdom and the European Union.

IP

While the underlying art masterwork may be subject to IP rights, such as designs or trademarks, an NFT is closest to a form of deed, receipt, or certificate of authenticity. It merely verifies that the owner of the NFT owns the ''original'' of something that may have an infinite number of digital copies. Yet, an NFT is not a trademark and does not fall into any of the existing IP categories nor is it subject to copyright.

An NFT is nothing more than a digital receipt of ownership of a given version of the underlying work; hence, it is not patentable. The extent of ownership

ISSN 0148-8295

can be negotiated. The legal treatment of cryptocurrency is still a developing area and, as such, is still subject to different approaches. For this reason, the European Central Bank called on policymakers and member states to pass the MiCA law, which will require stablecoin issuers to maintain ample reserves and regularly update disclosure documents. The new law would also address environmental concerns around crypto by having firms report their energy usage and emissions.

GENERAL TAX TREATMENT NFTs (DIRECT AND INDIRECT)

Europe is a major hub for investors with a keen interest in cryptocurrency. While NFTs are often bought and sold using cryptocurrencies such as Bitcoin and Ethereum, they are not cryptocurrencies themselves. Therefore investors, before releasing cryptocurrency supply and beginning to trade, first need to determine the applicable taxes in Europe in order to determine whether NFTs constitute a good investment opportunity.

How taxes operate in respect of NFTs depends on their use and function. Various events might trigger tax in relation to NFTs, for example, when they are created and sold in a marketplace, when they are bought directly from the original creator and when they are sold by an investor. As with any other token, an NFT can be held for personal use. The resulting tax treatment (direct) of an NFT will depend on the use and reasons for holding and entering into a transaction in respect of the NFT. As such, the following might apply:

- Capital gains tax;
- Income tax on revenue backed by the ownership of the NFT;
- Income tax on a business or profit-making scheme;
- Tax on the value of the NFT;
- Depending on the terms of the NFT, smart contract and the rights it grants, a combination of the above.

Most jurisdictions have not enacted specific tax laws on the taxation of NFTs or cryptocurrency. Their tax treatment is, therefore, based on general principles and any guidance issued by the tax authorities. The guidance issued by some jurisdictions' tax authorities is more comprehensive than others and some jurisdictions have not, to date, issued any guidance. The tax treatment of cryptocurrency differs depending on the terms of the cryptocurrency. Most taxes target bitcoin-style cryptocurrency intended to operate as a transferrable asset carrying value. Whilst tax authorities globally have made progress in considering and issuing guidance on the taxation of cryptocurrency, the tax treatment of other crypto-assets, including NFTs, remains unclear. This can give rise to considerable complexity and uncertainty. The taxation of NFTs really depends on the way you interact with them into a marketplace. The role you might assume is of a buyer or alternatively a seller of NFTs, in other words an investor. Creators encounter a taxable event when they sell NFTs, those can generally deduct ordinary and necessary business expenses to offset income. Those who buy and sell NFTs for speculative purposes are typically investors, whose tax treatment often fall into the cryptocurrency trading since the way you purchase NFTs is by using cryptocurrencies.

INDIRECT TAXATION — GENERAL OVERVIEW: THE EU VAT LAW

The Metaverse today represents the idea of a parallel world, already in our present, in which blockchain and smart contracts, NFTs, cryptocurrencies and artificial intelligence enable a fusion of the real and virtual worlds. NFTs are cryptographic tokens based on blockchain technology, which contain a right to a digital or a physical asset. The holder of an NFT acquires, in practice, the digital certificate of authenticity ''embedded'' in the token itself.

As NFTs constitute ''intangible assets,'' they are treated as services for value-added tax purposes since the EU VAT law divides supplies into two categories, goods and services.

In this light the identification of the country triggers the way VAT has to be applied or charged or eventually exempted. In the case the buyer and the seller are both ubicated in the same country, the so-called ''place of supply,'' in which the sale is taxable, is identified in the country while alternatively, whether the buyer and the seller are not ubicated in the same country the ''place of taxation,'' needs to designated accordingly. One of the most recent official positions in Europe on NFT sales is coming from the Spanish Tax Administration, which is treating NFTs as electronically supplied services.

THE BLOCKCHAIN AT THE CENTER OF THE NEXT FISCAL REVOLUTION: THE "TAX GAME"

The idea of adopting a blockchain technology presents many legal and regulatory challenges, ranging from consumer protection to the fight against criminal activities. However, we are facing an epoch-making change that also presents enormous potential advantages for the citizens themselves: reduced costs,

ISSN 0148-8295

greater safety in financial traffic, and a more accessible and innovative financial system — to name just some of the possibilities.

The blockchain technology has the potential to revolutionize transaction registration systems and their taxation as well as automate many of the processes that characterise tax systems nowadays.

With regard to ''real-time accounting,'' the blockchain technology has the potential to improve the accounting profession by reducing the costs of maintaining and reconciling the registers and providing greater reliability of the registrations themselves. Instead of often-awkward auditing activities, in a ''private'' blockchain scenario, the company subjected to an external audit would provide access to the auditing company allowing a more rapid and effective control action. In the payroll tax activity, the blockchain technology would allow employees to be paid and consequently all the related deductions and contributions made in real time and at the same time would also allow different entities (especially social security and insurance ones) to have immediate access to all employee records and all payments received by the employee.

Finally, given the complexity of intercompany transactions and the transparency obligations imposed by the various jurisdictions, automating the processes of applying and documenting a correct transfer pricing policy is clearly of interest and of considerable importance.

Last but not least, in a value added tax (VAT) transaction scenario with the support of the blockchain technology, the customer pays the invoice to the supplier; at the same time the blockchain, through a set of instructions and calculations enclosed in a smart contract, calculates the VAT and separates the taxable part from the nontaxable part; and according to preset ''digital instructions,'' pays the tax directly to the tax authorities. Finally, the entire transaction will be automatically recorded in the company's accounting system in real time including any exclusion regime, exemption, or miscellaneous information, thus allowing for subsequent transactions without repeated or periodic transmission of the declaration forms because all the needed information will already be in the hands of the competent tax authorities (pre-populated tax return).

The main benefits of using blockchain in everyday VAT transactions are the following:

- Significantly reduced administrative burden, saving companies time and the cost of accounting services;
- Real-time, tamper-proof, transparent transactions executed by smart contracts;
- Reduced risk of mistakes;
- Immediate insight into a company's finances;
- High-speed money transfers between businesses and governments;
- Removal of taxpayers' burden of the VAT calculations on the invoice level and Vat amount due on tax return level;
- Drastically reduced risk for VAT fraud, as the same system that allows for Vat processing from a transactional perspective allows for multi-dimensional checks and verifications of the transaction as well as the parties to the transaction and the legal and business context.

BLOCKCHAIN: THE DISRUPTIVE TECHNOLOGY UNDERLYING THE ''UNIQUE'' DIGITAL ECOSYSTEM

Blockchain is a ledger by way of which information is replicated and distributed across computers connected over a peer-to-peer network. This distributed ledger technology basically creates a single record of a transaction that can be accessed and independently verified by all approved parties to the transaction. That single transaction is recorded in a ''block'' that serves as an unchangeable, permanent and trusted record maintained in a shared digital ledger. The decentralized ledger can be used for smart contracts (as well as self-executing contracts, blockchain contracts and digital contracts). Smart contracts are basically agreements in the form of computer programmes where the terms and conditions can be programmed such that they are self-executing.

PRIVATE BLOCKCHAINS AND DECENTRALIZED AUTONOMOUS ORGANIZATIONS (DAOs)

There are permissionless blockchains, i.e., they have no barriers to entry and anyone can use them or participate in the activity. This implies that everyone is invited to take part in the essential functions of the network. All users are granted equal access to the ongoing operations of the blockchain. This is what gives a public blockchain its sense of autonomy.

Similar to classic public blockchains, private blockchains are controlled by one central organization, which then exploits their technological peculiarities and various applications, but without considering total decentralization as the ultimate goal of the system.

In private blockchains, who is authorized to use the network, validate transactions, and manage the shared ledger is determined solely by the central authority and owner of the system. Due to limitations on public access to these blockchains, these networks are only partially decentralized.

ISSN 0148-8295

Private blockchains are similar to public blockchains, except that these are managed by a single central authority. While some organizations see great value in blockchain technology, these could live without its openness and transparency. For these organizations, a closed and secure blockchain makes more sense due to the particular nature of its database.

With a public blockchain, every user takes part in network operations. The efficiency and speed of the blockchain may suffer. A private blockchain, on the other hand, uses only the necessary resources. As a result, processes will be accelerated and improved. In addition to this, private blockchains guarantee higher levels of privacy. That is, untrustworthy counterparts are prevented from accessing or taking control of the network by restricting who is authorized to view and validate transactions. Private blockchains are easier to manage, suffer less downtime, and offer maximum uptime because they have a smaller network with fewer users. In addition, the digital ecosystem can incorporate compliance requirements more easily because there is only one central authority.

Businesses, banks and even governments are interested in this idea of a ''distributed ledger.'' However, these organizations generally use a private blockchain. This is a limited implementation of the technology, instead of a completely open configuration that can realise its full potential.

A blockchain framework called Hyperledger Fabric is used to create applications with distinctive identity management and access control features. Because of these features, it is an exceptional technology for all companies engaged in supply chain monitoring, reward programmes, clearing and settlement of financial assets, and so on. Walmart, for example, uses a private blockchain platform based on Hyperledger Fabric. This is a very good example of a private blockchain and is an open source framework created by The Linux Foundation.

While the basis of blockchain technology is undoubtedly the libertarian philosophy that presupposes pure decentralization, and thus the idea that each citizen can perform a range of activities without any role on the part of central authorities, its technological essence expresses something else entirely. First and foremost, security, transparency, immutability.

Companies normally have a head office, a boss, a board of directors, shareholders. Governance, for example, is defined in the articles of association and independent auditors are often provided for to check that there are no illegal activities on the part of the directors.

In fact, a company is in its essence a centralized organization, it has always been that way.

DAOs, on the contrary, are decentralized by nature, starting with the fact that they are born directly on the blockchain. There is no need to go to a notary for a public deed. They have no headquarters as a DAO is everywhere because it is on-chain and those who work on it can be anywhere, as long as there is an internet connection.

Concerning the funding part, DAOs don't make capital increases and don't go to venture capital firms (VCs), they create their own digital currency and try to convince, directly on blockchain, people to buy it. And people will do that if they think that DAO will be successful, just like you do when you decide to invest in a startup or buy shares in a listed company.

The whole point of DAO is governance: it is all on-chain and, potentially, every day there can be one or more votes on topics that the various token holders can propose. Who can vote? Only those who own the tokens of that specific DAO. Since everything is on-chain, everything is transparent and immutable. There is no need for any of the members to trust the management: when a decision is approved by the majority of the token holders.

We could probably argue that the DAO will become, or perhaps has already become, the type of organization for the blockchain way of doing business. At the same time, the tokens of these organizations can be thought of as a kind of shares. They are issued by the DAO and serve to finance its activities.

CONCLUSIONS: VIRTUALLY TRANSFORMING THE ART MARKETPLACE AND MORE

The utility of NFTs is premised on blockchains. NFTs are composed of software code in the form of ''smart contracts'' that can be crafted to provide significant benefits to NFT creators. NFTs make it possible to ''own'' and sell intangible art masterworks. NFTs can be seen as the digital — and financial — dimension of an artist's creative effort, singularity and soul. Having put so much of their time and themselves into their work, it is comforting and reassuring for the future of creative expression and content that such work can be compensated. The art market is one realm where NFTs can be transformational, as they represent a shift from art being something physical, embodying ethereal beauty and essence, at times unattainable and intangible, to a digital and abstract, yet innovative and unconventional, form of expression. And like physical art and collector's items, NFTs are unique, as they are produced as a limited edition, the latter characteristic being bound to increase their value. At the same time, blockchain, as the most significant application of distributed ledger technology, is one of the key emerging technologies that is shaping Europe's future. From an economic and financial perspective, blockchain technology has the potential

ISSN 0148-8295

to displace any business activity built on transactions occurring on traditional corporate databases, which is what underlies nearly every financial service. Any financial operation that has low transparency and limited traceability is thus vulnerable to disruption by blockchain applications. This decentralization and the use of encryption make blockchains particularly robust in preventing data manipulation. This was the reason behind the initial case for their use for payments, such as in respect of Bitcoin. Time-stamped data entries serve as proof of authenticity and make blockchains ''trust machines.'' Governments, financial services companies, and FinTech start-ups form a digital ecosystem or a ''digital marketplace,'' which will face different challenges and opportunities and also allow for a more dynamic and complex landscape as it continually evolves.

It is for these reasons and many others — as the digital financial services industry moves from the exploration phase to the application phase — that policymakers, financial decision makers, and tax practitioners need to understand the role of such disruptive technologies in order to take advantage of the potential business opportunities and the related legal and tax implications.

ISSN 0148-8295