ALL ABOUT NFT

E-BOOK

COMPREHENSIVE GUIDE ON NFT ISSUANCE
WITHIN THE V4 REGION

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INTRODUCTION

Cryptocurrencies and the digitization of society are among the most interesting development topics of the 21st century. They open doors to completely new topics. NFT (Non-fungible tokens) are part of these topics, practically their fusion. Art is experiencing a renaissance with a growing interest in digital collecting. Digital prints, 3D visualizations of unique things and objects, music and others that we can buy, sell, use as investments or popularization and promotion of the industry through blockchain technologies.

However, despite the growing interest, there is still a large information gap and those interested in NFTs do not have one place where they can find all the information they need, whether it is to sell, to buy or how NFTs work.

The AllAboutNFT project and the E-book you are currently reading are intended to solve and correct this information asymmetry. We have brought together experts in digitization, NFT sales, NFT taxation and accounting, and lawyers who have pooled their knowledge to give you complete information for working with NFT.

The e-book you are reading should answer all the questions you will encounter from the moment of the first idea to create your own NFT to solving the tax return from its sale. We used this information to 3D digitization of 700-year-old Corvinus linden tree, which will soon be available on the market to those interested in owning it as an NFT.

I believe that this publication will also be helpful to you, and if you still have further questions, we are at your disposal.

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HOW TO DIGITIZE PHYSICAL OBJECTS?

As an object digitizer interested in creating an NFT from a digitized object, you have several options to digitize your chosen object (which you should have the right/entitlement to digitize). In the beginning, you have two main options: to digitize it by yourself or to use the services of companies - digitizers - whose services, depending on the type, size or accessibility of the digitized object, as well as the technology used for digitization, can range from tens of EUR to thousands of EUR.

The second, more demanding approach is digitization on your own. Here you have several options as a digitizer. Choosing the most suitable one again depends on the type of object you want to record, and therefore also on the requirements for the accuracy and detail of the scan.

We do not need to address 2D scanning for the purposes of this e-book. If you are creating digital art, there is no need to scan anything. In addition, when you have printed a design print that you want to digitize, you can work with the structure of the paper, wear of the paint or any damage to the visual or the canvas. Therefore, it is more appropriate to deal directly with 3D scanning.

3D scanning technologies make it possible to create a digital three-dimensional representation of a physical object or environment. There are several different technologies and methods of 3D scanning that use different methods. We select the most interesting in various respects:

LASER 3D SCANNING

Often referred to as LIDAR (Light Detection and Ranging), employs laser beams to measure distances to objects or surfaces. LIDAR scanners can rapidly capture high-density 3D data points, making them useful in applications like autonomous vehicles, archaeology, topographic mapping, and forestry. This technology is already used in a few types of mobile phones.

Advantages	Disadvantages
• High accuracy and scanning speed • Ability to obtain detailed 3D maps of the surface of the object • Usable for a variety of applications including industry, architecture and surveying	• Requires expensive equipment • Limited when scanning transparent or glossy surfaces • Usually requires professional service

STRUCTURED LIGHT SCANNERS

Structured light scanners project patterns of light onto an object and then capture the deformations in these patterns to calculate 3D coordinates. This technology is suitable for applications in industrial quality control, reverse engineering, and cultural heritage preservation.

Advantages	Disadvantages
• Relatively fast and accurate scanning • Usable for various surfaces and objects • The possibility of scanning larger scenes	• Needs sufficient light for successful scanning • Works best in well-lit environments • May be affected by other light sources

PHOTOGRAMMETRY

The process of taking many photographs of an object from a variety of angles and stitching them together to create a 3D model. A standard digital camera can be used with specific software that detects overlapping patterns to build up a 3D reconstruction of the photographed object. This specialized software analyzes common points in the photos and calculates the object's 3D position.

By comparing pixel colours and defining anchor points, photogrammetry software evaluates and creates 3D models of a vast variety of objects. It is widely used in aerial mapping, land surveying, and 3D reconstruction of historical sites.

Advantages	Disadvantages
• Low equipment costs (if conventional cameras are used) • Ability to scan larger scenes • Usable for terrain mapping and building modelling	• Requires proper camera calibration • Less accurate in case of lack of good reference material • Sensitive to object movement between frames

CT SCANNING

Combines X-ray technology with computer processing to create detailed 3D images of the internal structures of objects. A CT scanner emits X-ray beams from various angles around the object. Detectors measure the amount of X-rays that pass through the object at each angle. A computer processes this data to reconstruct a cross-sectional image of the object, and multiple cross-sectional images are stacked to create a 3D model.

Advantages	Disadvantages
• Ability to create detailed 3D representations of internal structures • Usable for medical and industrial applications	• High doses of ionizing radiation in the case of X-ray CT • Expensive and large equipment

ULTRASOUND

3D scanning uses high-frequency sound waves (ultrasound) to create 3D images of the internal structures of the human body or objects. Ultrasound waves are emitted and bounce off different tissues and structures. The returning echoes are used to construct a 3D image.

Advantages	Disadvantages
• Usable for medical applications and diagnostics • Safe and non-invasive for patients • The ability to visualize the internal structures of the body	• Limited to indoor scanning, not surface 3D maps • May be affected by body tissues and fluids

TOF (TIME-OF-FLIGHT)

3D scanning technology measures the time it takes for light or laser pulses to travel to an object and back to the sensor. By measuring the time-of-flight, the system calculates the distance to the object's surface. Multiple measurements from different angles and positions are used to create a 3D point cloud, which can be turned into a 3D model.

Advantages	Disadvantages
• Fast and efficient scanning • Usable for a variety of applications including the gaming industry	• Limited resolution to distant objects • Sensitive to ambient light conditions

Each technology has its place in different industries and applications, and the choice depends on the needs and requirements of the particular task. It is important to consider accuracy, speed, cost and technical limitations when choosing 3D scanning technology for a given project.

Ideally, if you have enough time for digitization, it is advisable to use a combination of several methods (for example, photogrammetry, photometry, and structured light technology). This fusion of methodologies results in exceptional scan accuracy and realism.

After digitizing the object, the usually important post-production comes next. Usually (depending on the chosen technology), scans cannot yet capture all the details exactly. After scanning a 3D object, a post-production process follows, which includes processing and editing the obtained 3D data to make it suitable for a specific application or purpose.

This step involves removing any inaccuracies and errors that may be present in the scanned data. This may include removing noise, inaccuracies or “point errors” that may be caused by influences such as vibration or inaccurate calibrations of the scanning equipment. Use various filters and techniques to improve the quality of the data and process it to display the desired levels of detail. With filters, you can tune out unwanted changes that can be caused, for example, by faulty lighting or other factors. If you used multiple scan images, pair them to create a single 3D model. In addition, if you use multiple scanning devices or images from different angles, they need to be unified and aligned into one coherent model.

If necessary, be sure to create a polygonal network (mesh) from the point data. The created mesh will form the surface of the 3D object. You can subsequently add textures, colours, reduce the number of polygons in this network and many others. It depends on the level of detail you want. The rest of the digitization depends on the use of the scanned object - do you plan to animate it further? Where should it be used - is it only for visualization or do you want to use it, for example, in the gaming industry?

Please note that these steps in the post-production process can be complex and often require expertise in 3D modelling and animation. The accuracy and quality of post-production will depend on the specific requirements of the project and the level of detail you want to achieve.

ARE NFTS CONSIDERED AS A VIRTUAL CURRENCIES IN TERMS OF TAX REGULATIONS?

CZ NFTs are a type of a crypto asset used to prove ownership of digital or physical items. Each NFT is unique and information about it is written in the blockchain to prevent counterfeiting. Blockchain works on the Distributed Ledger Technology.

Cryptocurrencies, crypto assets and virtual currencies are not specifically defined within the framework of the Czech tax laws, and the method of taxation is not specifically determined for them. Therefore, when determining the method of taxation, it is necessary to proceed according to the general rules and principles established in individual tax laws. The topic of cryptocurrency was dealt with by the General Financial Directorate in its Information on the Tax Assessment of Transactions with Cryptocurrencies (e.g., Bitcoin)[1] , which was based on the Ministry of Finance's announcement[2], the opinion of the Czech National Bank[3] and Czech legislation. This document[4] defined cryptocurrencies for income tax purposes as intangible, movable and fungible. As NFTs are non-fungible tokens and they do not meet the definition of fungibility set forth in the Information of the General Financial Directorate, the Information cannot be unequivocally relied upon in determining the manner of NFT taxation.

The only definition regarding crypto assets is provided in the Act on Certain Measures Against the Legalization of Criminal Proceeds and the Financing of Terrorism[5], where, in Section 4 (9), the term virtual asset is defined as an electronically storable or transferable unit that is capable of fulfilling the purpose of a payment, an exchange or an investment; where it is not important whether or not it has an issuer, and it must not be a security, an investment instrument or funds according to the Payment System Act. Furthermore, this law[6] stipulates that crypto assets may not be funds intended for payment only at the place of the issuer of these funds or within a narrowly defined range of suppliers, or for payment of a narrowly defined range of goods or services, and that they may not be funds for specific benefits provided by employers to their employees and specific payments made through the provider of electronic communications.

In the European Union, the Regulation of the European Parliament and of the Council of the EU on Crypto Asset Markets was issued in 2023[7], where crypto assets are defined as: "a digital capture of value or right that can be transferred and stored electronically using distributed ledger technology or assistive technology". However, crypto assets that are unique or not replaceable by other crypto assets are excluded from the scope of this regulation, therefore the regula-

[1]Information on the tax assessment of transactions with cryptocurrencies (e.g. Bitcoin), General Financial Directorate, file no. 18809/22/7100-40050-205680, dated 30.3.2022

[2]Notice of the Ministry of Finance on accounting and reporting of digital currencies dated 15/05/2018

[3]Opinion of the CNB on the regulation of the financial market dated 11/19/2018

[3]Information on the Tax Assessment of Transactions with Cryptocurrencies (e.g. Bitcoin), General Financial Directorate, file no. 18809/22/7100-40050-205680, dated 30.3.2022

[5]Act No. 253/2008 Coll. on certain measures against the legalization of proceeds from criminal activity and the financing of terrorism, as amended.

[6]Act No. 253/2008 Coll. on certain measures against the legalization of proceeds from criminal activity and the financing of terrorism, as amended.

[7]Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023, on crypto-asset markets and amending Regulation (EU) No. 1093/2010 and (EU) No. 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937

tion is not applicable to most NFTs due to their non-interchangeability.

Since neither crypto assets nor NFTs are defined in detail in the Czech legislation for the purposes of tax laws, we recommend that, when determining the method of taxation of NFTs, you consider the transactions from the perspective of their true nature and accordingly determine the method of their reporting in accounting records and their taxation.

SK The Slovak legislative does not define neither NFT nor it does not provide any specific instructions for taxation of NFTs.

The first part of the definition of virtual currency in the Methodological guideline of the Ministry of Finance of the Slovak Republic is also applicable to the NFT. It states that virtual currency is a digital value carrier that is not issued or guaranteed by the central bank or a public authority, nor is it necessarily tied to legal tender, does not have the legal status of currency or money.

However, the difference between virtual currency and NFT is that virtual currency is accepted by some individuals or legal entities as mean of payment. In contrary, the unique and non-fungible character of NFT causes that NFT does not provide a possibility to be used as a usual mean of payment.

Even though on the level of European Union the cryptoassets are defined much wider than in the Slovak Republic, for the purposes of tax regulations the NFTs are usually not considered virtual currencies.

NFTs are, similarly as other tokens, based on DLT (Distributed Ledger Technology). They are classified among the utility tokens.

In Slovakia, the legal regulation of crypto assets is not very well developed so far. The Slovak Income Tax Act[8] regulates only the method of taxation of virtual currencies. However, it does not define what is considered as virtual currency. Methodological guideline of the Ministry of Finance of the Slovak Republic[9] defines virtual currency as follows: **"the term virtual currency means a digital value carrier that is not issued or guaranteed by the central bank or a public authority, nor is it necessarily tied to legal tender, does not have the legal status of currency or money, but is accepted by some individuals or by legal entities as a means of payment and which can be transferred, stored or traded electronically."**

At the same time, the Slovak legislation and interpretations of state authorities do not provide any specific instructions for taxation of NFTs. First of all, it is crucial to investigate what the essence of NFT is and to proceed adequately with taxation. Therefore, before certain legislative changes will be adopted in the future, either at the legislative level of the European Union or at the national level, which will regulate the taxation of NFTs, it is necessary to deal with the question whether NFTs can be considered virtual currency or not.

Following the Slovak definition of virtual currency, it is a digital value carrier hat is not issued or guaranteed by the central bank or a public authority, which is applicable also on NFT. NFT, like a virtual currency, is not strictly tied to legal tender and it does not have status of currency or money. However, the difference in the identification of virtual currency and the identification of NFT lies in the last part of the definition, which says that virtual currency is accepted by some individuals or legal entities as mean of payment and which can be transferred, stored or traded

[8]Act no. 595/2003 Coll. On income tax as amended

[9]Methodological guideline of the Ministry of Finance of the Slovak Republic no. MF/10386/2018-721 to the procedure taxation of virtual currencies

electronically. The main essence of NFT is the authentication of ownership of a certain thing or right. NFT does not enable direct payment for the provision of services or the delivery of goods. In the event of possibility to exchange NFTs for services or goods, it should be considered a barter trade. For this reason, when we talk about NFTs, we can hardly talk about a means of payment. In contrast as regards virtual currencies, it is possible to pay with some of virtual currencies in e-shops that accept bitcoin (or other virtual currency) payment when buying goods or services online. In the capital city - Bratislava it is even possible to pay for a food or beverages using bitcoin in a restaurant owned by the cryptocurrency enthusiast. Although NFTs can be exchanged for other NFTs or can be bought or sold in exchange for cryptocurrency, NFT does not provide a possibility to be used as an usual mean of payment, which is primarily caused by their unique and non-fungible character.

The main difference of NFTs from virtual cryptocurrencies as well as from fiat money is that NFTs are non-fungible by nature, which means NFT cannot be traded or exchanged for one another. Each NFT has a digital signature and they are not equal in value – one NFT, for example NBA Top Shot clip, is not equal to another NBA Top Shot clip, which is in contrast with fiat money or cryptocurrencies[10].

At the level of European Union, in October 2022 the European Council approved the Regulation on crypto-asset markets[11] (hereinafter referred to as the "MiCA"[12]). This regulation regulates crypto-assets much wider than the Slovak legislation. MiCA defines a crypto-asset as "**a digital representation of a value or a right which may be transferred**

[10]What Is An NFT? Non-Fungible Tokens Explained [online]. Available **here**.

[11]Proposal for a regulation of the European Parliament and of the Council on Markets in Crypto-Assets, and amending Directive (EU) 2019/1937

[12]The abbreviation comes from the English term "Markets in Crypto-assets".

and stored electronically, using distributed ledger technology or similar technology". At first sight, the one could say that this definition of crypto-asset includes also NFTs. However, in paragraph 2a the MiCA further specifies that "This Regulation does not apply to crypto-assets that are unique and not fungible with other crypto-assets". The features of crypto-assets set by MiCA limit its application only on fractional parts of NFTs, which should not be considered unique and non-fungible and which can have a financial use. The indicator of fungibility of NFTs should be their issuance in a large series or collection, however, its explicit meaning is not defined. According to EU regulators, if a token is issued as a collection or as a series – even though the issuer may call it an NFT and even though each individual token in that series may be unique – it is not considered an NFT. So, although the EU regulators states that NFTs are excluded from the scope of the MiCA, this is not applicable to all NFTs[13]. However, it is hard to imagine that the national financial supervisor would have to assess on a case-by-case basis how to categorize an NFT based on the specific characteristics of the NFT in question, and then assess whether the NFT falls under any existing financial market regime.

The Committee of European parliament on Economic and Monetary Affairs (ECON) stated that NFTs representing intellectual property rights, certificates of authenticity, guarantees or any right not linked to rights in financial instruments should not fall within the scope of this regulation. ECON also proposes a special regime for NFTs according to the framework applicable to the economic and not the financial sector. Thus, the ECON does not see NFT as a financial instrument. The Committee's position clearly shows the intention to categorize NFTs as a separate cryptoasset and to differentiate NFTs from other cryptoassets due to their specific character and functions[14].

[13]NFT Collections Will Be Regulated Like Cryptocurrencies Under EU's MiCA Law, Official Says [online]. Available **here**.

[14]UMENIE V DIGITÁLNOM SVETE A NFT [online]. Available **here**.

When considering the question whether NFTs are considered virtual currencies in terms of tax regulations, we are inclined to say that NFTs, with certain exceptions, do not constitute virtual currency for the purposes of tax regulations. Therefore, the income from the sale of NFTs can not be considered the income from the sale of virtual currency defined by the Slovak Income Tax Act.

HU It should be noted that only the Personal Income Tax Act defines cryptocurrencies as virtual currencies in Hungary. According to the Hungarian PIT rules the NFTs are considered virtual currencies and taxable according to the taxation of crypto assets.

A cryptoasset, for the purposes of the PIT rules, is a digital representation of value or rights that can be electronically transferred and stored using shared ledger technology (e.g. blockchain) or similar electronics. Thus, in addition to cryptocurrencies, NFTs and digital objects acquired in the metaverse, which are transferred through the blockchain, are also considered cryptoassets under the relevant law.

Beside the PIT rules neither other tax regimes (e.g. VAT, corporate tax, small business tax, etc.) nor the Accounting Act itself define the concept of cryptocurrency. Therefore, from an accounting and corporate tax point of view, cryptoassets are not a separate category and should be treated and accounted according to the rules applicable to purchased receivables. Even though this approach differs from international accounting standards, which require cryptoassets to be treated as intangible assets or inventories, the official position of the tax authority is that digital currencies should be accounted as receivables.

Regarding the VAT treatment: according to the case law of the European Court of Justice, cryptocurrencies are payment instruments and trading with them is a tax-free activity without the right to deduction. The sale of cryptos therefore does not give rise to a VAT liability, but VAT on the costs related to crypto activities is not deductible.

WHAT TAX REGIME APPLIES TO INCOME FROM THE SALE OF NFTS?

CZ Czech tax legislation does not specifically regulate the method of taxation of income from the sale of NFTs. Due to the possible diversity of NFTs, which may represent rights to various assets, we recommend that you base the taxation of NFTs on the true nature of the assets and tax the income from their sale accordingly.

1.1. TAX REGIME APPLIED TO INCOME FROM THE SALE OF NFTS IN THE CASE OF ITS SALE BY A NATURAL PERSON

In the case of natural persons, when selling NFTs, there may be two different ways to tax this income according to Act No. 586/1992 Coll., providing for income taxes, as amended, either under Section 7 or Section 10 of the Act.

The first option is to tax income from transactions with NFTs as income from self-employment according to Section 7 of the Act[15] . This method of taxation is used if:

- natural persons will create their own works of art, which will then be converted into a digital form (NFTs) and sold or licensed for use (hereinafter referred to as “copyright fees”),
- natural persons will buy and sell NFTs as a part of a trade, which is defined in the Trade Act as a continuous activity carried out independently, in one’s own name, on one’s own responsibility, for the purpose of making a profit, while meeting other conditions stipulated in the Trade Act[16].

The second option is to tax income from transactions with NFTs as other income according to Section 10 of the Act[17]. This method of taxation will be used if the natural person does not meet the conditions for self-employment and it will only be occasional income from the sale of purchased NFTs.

Income of natural persons is taxed as a part of their personal income tax returns after the end of the tax period. The basic tax period of natural persons is usually a calendar year. Income received by natural persons during a year is taxed in their annual income tax returns. The duty to file an income tax return arises if the annual income which is object of income tax exceeds CZK 50 000. If natural persons have both income from a dependent activity and other income, they will have a duty to file income tax returns if their income other than that from dependent activity exceeded CZK 20 000. The threshold will not apply if a natural person reported a tax loss.[18]

The tax base, which is determined according to individual provisions for individual types of income, after reduction by the non-taxable part of the tax base and the deductible items from the tax base, is subject to a 15 % tax rate applicable to the part of the tax base up to 48 times the average wage; 23 % tax rate will apply to the part of the tax base exceeding 48 times the average wage[19]. In 2023, the average

[15]Act No. 586/1992 Coll., providing for income taxes, as amended.

[16]Section 2 Trade Act No. 455/1991 Coll., as amended.

[17]Act No. 586/1992 Coll., providing for income taxes, as amended.

[18]Section 38g (1) of Act No. 586/1992 Coll., providing for income taxes, as amended.

[19]Section 16 of Act No. 586/1992 Coll., providing for income taxes, as amended.

wage is CZK 40 324[13]. The tax calculated in this way is subsequently reduced by tax discounts and tax benefits under the Income Taxes Act[20].

1.1.1. INCOME FROM SELF-EMPLOYMENT

According to Section 7 of the Income Taxes Act[15], several methods can be used for determining the tax base and subsequent taxation of income from self-employment.

Taxpayers can claim expenses for achieving, securing and maintaining income from self-employment[21]. Taxpayers can choose whether to apply expenses in their actual amounts or as a lump sum. When applying expenses in their actual amounts, taxpayers can choose whether they will keep tax records or accounting. The chosen method of applying expenses is binding for all income in the partial tax base, except for income received from cooperating persons. The last option is taxation using flat-rate tax, but this option only applies to certain taxpayers who must meet very specific conditions[22].

A natural person may keep tax records to apply expenses in their actual amounts. Tax records include data on income and expenses to the extent that it is possible to determine the tax base, and in which there are data on property and debts[23]. As part of the tax records, it is not possible to

[13]Government Regulation No. 290/2022 Coll., providing for the amount of the general assessment base for 2021, the conversion coefficient for adjusting the general assessment base for 2021, the reduction limits for determining the calculation base for 2023 and the basic pension amounts set for 2023 and on the increase in pensions in 2023.

[19]Sections 35 - 35d of Act No. 586/1992 Coll., providing for income taxes, as amended.

[20]Act No. 586/1992 Coll., providing for income taxes, as amended.

[21]Section 7 (3) of Act No. 586/1992 Coll., providing for income taxes, as amended.

[22]Section 7a of Act No. 586/1992 Coll., providing for income taxes, as amended.

[23]Section 7b of Act No. 586/1992 Coll., providing for income taxes, as amended.

depreciate long-term intangible assets, and in the case of the acquisition of long-term intangible assets, their value is applied as an expense in the year of acquisition. Another way of applying actual expenses is through accounting. Accounting is regulated in Act No. 563/1991 Coll., providing for accounting, as amended. In this case, taxpayers tax their economic results reported in the accounting, adjusted according to the Income Taxes Act[24] for non-taxable items and other adjusting items. Taxpayers have a duty to keep accounts if they reach the annual turnover of CZK 25 000 000, they are registered in the commercial register, or they decide to do so voluntarily and in other situations established by Act[25]. Natural persons who are accounting units can stop keeping their accounts not sooner than after 5 consecutive accounting periods in which they kept accounts, a sooner termination of keeping accounts is only permitted if the natural person is terminating its activity. In the case of bookkeeping, taxpayers can claim the costs of the acquisition of long-term intangible assets as part of asset depreciation, which are tax-deductible in the amount of accounting depreciation. The expenses (costs) that taxpayers can claim against their business income are governed by the rules that are largely common to natural and legal entities. They must be actual expenses (costs) that taxpayers used to achieve their taxable income. Expenditures (costs) incurred by the taxpayer to achieve, secure and maintain this income can be deducted from taxable income, are proven by him in a certain amount and must not be expenses applied in previous tax periods[26].

Flat-rate expenses are determined depending on the type of income. The percentage amount and the maximum absolute amount of applicable expenses are determined for various types of income. For income from copyright fees, i.e. for self-created NFTs, the amount of expenses that the

[24]Act No. 586/1992 Coll., providing for income taxes, as amended.

[25]Act No. 563/1991 Coll., providing for accounting, as amended.

[26]Section 24 (1) of Act No. 586/1992 Coll., providing for income taxes, as amended.

taxpayer can claim is set as 40 % income, with the annual maximum of CZK 800 000. For income from business activities based on a trade license, the amount of expenses that the taxpayer can claim is set as 60 % income, but the annual maximum is CZK 1 200 000. For the application of flat-rate expenses, it is sufficient that the taxpayer keeps records of income and records of receivables. When applying flat-rate expenses, the taxpayer does not have the option to apply any other expenses related to business[27].

Taxpayer can freely decide which method of application of expenses they choose (if they do not have a duty to keep accounts). The transition between the application of actual expenses and flat-rate expenses is limited by certain rules, and adjustments during these transitions are determined by the Act[28].

In the case of applying actual expenses, income (revenue) may exceeds expenses (costs), or adjustments may be made in determining the tax base, resulting in a negative tax base or a tax loss. A tax loss from previous years can be deducted from the tax base in the 2 tax periods immediately preceding the tax period in which the loss arose, or in the 5 years immediately following the tax period in which this loss arose and cannot be applied against income from dependent activities[29].

In addition to taxation, the income is also subject to social and health insurance contributions. The assessment base for social and health insurance is a half of the difference between income and expenditures. Social insurance payments are 29,2 % of the assessment base and health insurance payments are 13,5 % of the assessment base. In addition, for social insurance, there is a minimum assessment base of 25 % of the average wage and a maximum assessment base

[27]Section 7 of Act No. 586/1992 Coll., providing for income taxes, as amended.

[28]Act No. 586/1992 Coll., providing for income taxes, as amended.

[29]Section 34 (1) of Act No. 586/1992 Coll., providing for income taxes, as amended.

of 48 times the average wage. For health insurance, only a minimum assessment base of 10 times the average wage is established.

1.1.2. INCOME FROM SALE OF NFTS ACQUIRED BY PURCHASE OUTSIDE THE SCOPE OF THE BUSINESS ACTIVITIES.

If natural persons sell purchased NFTs outside of their business activities, this income is taxed as other income according to Section 10 of the Income Tax Act, but only if it is income that cannot be classified as income from a dependent activity, income from self-employment, income from capital assets or income from rent. The income can be reduced by expenses demonstrably spent on achieving it, up to the amount of individual types of income. Any excess of expenses over income is not considered and the resulting loss cannot be compensated in any way with other types of income[30].

1.2. TAX REGIME APPLIED TO INCOME FROM THE SALE OF NFTS IN THE CASE OF ITS SALE BY A LEGAL ENTITY

If income arises from the sale of NFTs to a legal entity, the general rules of the Income Tax Act are used to determine the tax base or tax loss from that income. Unlike in the case of natural persons, in the case of legal entities the accounting economic result is always decisive. The economic result is determined as the difference between revenues and expenses of the given tax period. The economic result is adjusted for the purposes of determining the tax base using procedures set out in the Income Tax

[30]Act No. 586/1992 Coll., providing for income taxes, as amended.

Act[31]. Revenues and expenses of a given tax period depend on the methods of accounting, which are described in the following chapters, and which are applied according to the actual nature and use of specific NFTs.

NFTs may be included in fixed assets if their expected useful life is more than one year; the price limit is not determined by legal regulations, but should be set within the company's internal accounting guidelines. If the value of an NFT exceeds the specified limit, the NFT will be capitalized as a long-term intangible asset and the company will apply the acquisition costs gradually according to the depreciation plan using accounting depreciation which is tax deductible. If an NFT is sold before its total acquisition cost was applied in depreciation expenses, its residual value will be fully tax deductible in the year of sale. In the case of acquisition of an NFT with its expected useful life exceeding one year and not exceeding the limit set by the company for long-term intangible assets, the cost of the given NFT will be applied in the year of acquisition. In the case of the intention to purchase NFTs for resale within one year, the company will apply the costs of the purchased NFTs simultaneously with the proceeds from their sale. In the case of a purchase of an NFT that is not expected to depreciate and has more of the value of a collectable, this NFT may be classified as a non-depreciating non-current asset and the cost of acquisition will be applied against expenses only at the time of sale.

In a corporate income tax return, based on the accounting economic result before taxation the tax base is determined by means of adjusting items that reduce and increase the tax base, and any deductible items are deducted from the tax base. After rounding, the final tax amount is determined from this value in the amount of 19 %[32]. Any tax loss from previous years can be deducted from the tax base in the 2 tax periods immediately preceding the tax period in which the loss occurred, or during the 5 years immediately following the tax period in which the loss occurred[33]

The taxation of income from the transactions with NFTs in the conditions of the Slovak Republic is not clearly defined in any currently valid legislation. When determining the taxation regime for the generated income, it is necessary to consider primarily the status of the person conducting transactions with NFTs and also the method of acquiring the NFTs.

Depending on the status of the person conducting the transactions with NFTs, we distinguish transactions carried out by individuals and transactions carried out by legal entities. In the case of individuals, it is also necessary to differentiate whether this person conducts transactions with NFTs as a part of his/her business activities. Another important aspect is whether there is a transfer of ownership rights related to the NFTs or not.

Based on these circumstances, different tax regimes are also applied to the generated income. According to the legislation of the Slovak Republic, the tax base, consisting of the generated taxable income, can generally be reduced by specifically defined expenses or undergo specific adjustments for the purpose of its reduction. The tax rate of 15 % (for micro-taxpayers) or 19 % and 25 % for income generated by individuals, and 15 % (for micro-taxpayers) or 21 % for income generated by legal entities, is then applied to the calculated tax base after adjustments.

SK The method of taxation of the income derived from the sale of NFTs in the conditions of the Slovak Republic, similar to other member states of the European Union, is currently not clearly defined in the applicable legislation or methodological guidelines issued by relevant state authorities. This legislative gap creates le-

[31]Act No. 586/1992 Coll., providing for income taxes, as amended.

[32]Section 21 of Act No. 586/1992 Coll., providing for income taxes, as amended.

[33]Section 34 (1) of Act No. 586/1992 Coll., providing for income taxes, as amended.

gal uncertainty in the taxation of this type of income in practice.

The legal regulations of the Slovak Republic do not contain basic definitions of NFTs or transactions related to them. Therefore, when assessing the appropriate tax regime, it is necessary to rely on generally accepted definitions of NFTs and derive the nature of the transaction and its tax implications from them.

The following tax regimes applied to income derived from the sale of NFTs in the conditions of the Slovak Republic are based on the assumption that NFTs, in their essence, are not cryptocurrencies (or virtual currencies). Income from the sale of NFTs cannot be considered as income derived from the sale of virtual currency, and therefore, the relevant provisions of Slovak Income Tax Act cannot be applied to it.

2.1. TAX REGIME APPLIED TO INCOME FROM THE SALE OF NFTS IN THE CASE OF ITS SALE BY A NATURAL PERSON

Assuming that the sale of NFTs is carried out by an individual, it is first necessary to distinguish the method by which this person acquired the NFTs being sold, and whether the sale or purchase of NFTs is conducted as a form of their business activity (i.e. trading NFTs is the subject of their entrepreneurial activity) or whether the sale or purchase of NFTs is conducted outside the scope of their business. Differentiating these situations is essential for correctly determining the type of income derived from the sale of NFTs and, consequently, determining the applicable tax regime for taxation of this income. In transactions involving NFTs, it is also important to consider whether the sale of an NFT involves the transfer of copyright to this digital work or whether the copyright itself is the source of income.

2.1.1. INCOME FROM THE SALE OF SELF-CREATED NFTS

An individual can acquire an NFT through two basic methods - by purchasing it or by creating it through their own activities. If an NFT is created through their own activities, it is necessary to distinguish whether it represents income from licensing the use of the work (referred to as passive income) or income from creating the work, issuing, reproducing, and disseminating literary works and other works at their own expense, as well as creating or producing other intellectual property objects and using other intellectual property objects or transferring rights to intellectual property objects (referred to as active income) according to the Methodological Guideline of the Financial Directorate of the Slovak Republic for the taxation of income according to § 6 (2) (a) and § 6 (4) of Slovak Income Tax Act.[34]

If a person primarily creates an artistic work, which is subsequently transformed into a digital form to create new NFT, this NFT does represent their own intellectual property. The subsequent sale of such NFTs, which involves granting permission to use the artistic work to other individuals, is considered passive income of the individual under § 6 (4) of the Slovak Income Tax Act in the form of royalties. In this case, the transaction involves granting an exclusive or non-exclusive license to use the artwork, but there is no change in the ownership of the artwork, and the copyright does not transfer to the new owner.

At the same time, the taxpayer is entitled to deduct the incurred expenses that are demonstrably related to the income. The amount of these deductible expenses can reduce the taxable income, without considering

[34]Methodological Guideline of the Financial Directorate of the Slovak Republic for the taxation of income according to § 6 (2) (a) and § 6 (4) of Slovak Income Tax Act; Available **here**.

any potential loss incurred in this case[35]. If the taxpayer chooses not to claim demonstrable expenses, they can apply a flat-rate deduction of up to 60% of the total income, limited to a maximum amount of 20 000 EUR[36].

The partial tax base for this type of income will be included by the taxpayer in the aggregate tax base, which consists of partial tax bases from income derived from dependent activities, rental of real estate, income from the use of artworks or artistic performances, and other income. Subsequently, this tax base will be subject to taxation through the personal income tax return. The tax rate of 19 % or 25 % will be applied to the taxable portion of the tax base that exceeds 176,8 times the applicable subsistence minimum[37].

In the case where an individual creates an NFT through their own activities and incurs expenses to publish, reproduce, and distribute the work, such income will be considered, in terms of its nature, as income according to § 6 (2) (a) of Slovak Income Tax Act. In this case, the author of NFT earns income from the distribution of copies of the work. If the NFT is created on demand, it will be considered income from the creation of the work under this provision. However, in this case, a withholding tax at the rate of 19 %[38] will be applied to the income unless the taxpayer enters into a written agreement with the payer of the income to exempt them from withholding tax on the said income (it will be subsequently taxed through the tax return of the author).[39] In the case of the assignment of rights to the intellectual property under this provision, there is a transfer of copyright to the new owner. Consequently, in the case of NFT sales,

[35]§ 6 (6) third sentence of Slovak Income Tax Act

[36]§ 6 (10) of Slovak Income Tax Act

[37]§ 15 (a) 1st point of Slovak Income Tax Act

[38]§ 43 (3) (h) and § 43 (1) b) of Slovak Income Tax Act

[39]§ 43 (14) of Slovak Income Tax Act

there may also be a transfer of copyright to the new owner of the work if agreed upon with the previous owner or the author of the NFT. These types of income are considered active income. The same tax regime as in the case of acquiring NFT through its purchase will apply to these income sources, which will be further discussed in section Income from the sale of NFT acquired through purchase within the scope of business activities.

2.1.2. INCOME FROM SALE OF NFT ACQUIRED BY PURCHASE OUTSIDE THE SCOPE OF THE BUSINESS ACTIVITY

In the case where an individual earns income from the sale of NFT acquired through purchase, and this activity is not the subject of their business activity, such income will be considered as “other income” according to § 8 of Slovak Income Tax Act, without specific classification into a particular category of other income as defined by Slovak Income Tax Act. However, in this case, there is no transfer of copyright to the buyer.

Taxable income achieved from the sale of NFT can be reduced by expenses that the taxpayer can prove they were necessary to generate such taxable income, according to the legislation of the Slovak Republic.[40] These expenses primarily include the costs incurred for acquisition of the sold NFT (i.e. their purchase price) and any transaction fees related to the acquisition. At the same time, the taxpayer cannot incur a loss from this type of income. This means that if the related expenses exceed the amount of income derived from the sale of NFT, the taxpayer would not have any taxable income in such a situation, nor would they be able to offset future income tax base with a tax loss.

[40]§ 8 (2) first sentence of Slovak Income Tax Act

The partial tax base for other income according to § 8 (after reducing taxable income by demonstrably proven expenses) must be included by the taxpayer in the aggregate tax base consisting of partial tax bases for income from dependent activities, rental of real estate, income from the use of works or artistic performances and other income. This tax base is subsequently subject to taxation through the personal income tax return.

For the total accumulated tax base for personal income tax, comprising partial tax bases for income from dependent activities, rental of real estate, income from the use of works or artistic performances, and other income, the taxpayer applies a tax rate of 19 % or 25 % depending on the resulting amount of the tax base.[41]

The taxpayer is also obliged to pay health insurance contributions at a rate of 14 % of the assessment base from other income. The assessment base is the amount of the tax base for personal income tax achieved in the calendar year in which these health insurance contributions are paid.[42] However, proven expenses incurred in connection with the payment of mandatory insurance can be considered as expenses incurred to generate these taxable incomes.[43] This means that it is possible to reduce the amount of taxable income achieved with these expenses.

In the case where the sale of NFT involves the transfer of copyright associated with the NFT to the buyer, the income from the sale of the NFT could be considered as income from other self-employment activities arising from the transfer of rights to the intellectual property under § 6 (2) (a) of Slovak Income Tax Act. In this case, the tax regime that

[41]§ 15 (a) 1st point of Slovak Income Tax Act

[42]§ 12 (1) (c) of Act no. 580/2004 Coll. on health insurance and on amendments to Act no. 95/2002 Coll. on the insurance industry and on the amendment of certain laws

[43]§ 8 (12) of Slovak Income Tax Act

also applies when selling NFTs within business activities of an individual would be applied. This regime is discussed in the section Income from the sale of NFT acquired by purchase within the scope of business activities.

2.1.3. INCOME FROM THE SALE OF NFT ACQUIRED BY PURCHASE WITHIN THE SCOPE OF BUSINESS ACTIVITIES

In the event that a natural person generates income from the sale of an NFT, while buying and selling NFTs as part of their business activities, such income will be subject to a different tax regime compared to the tax regime applied to income from the sale of NFTs outside of the business scope, as defined in § 8 of Slovak Income Tax Act and § 6 (4) of Slovak Income Tax Act.

If the taxpayer engages in the buying and selling of NFTs, from which taxable income is derived, based on a trade license according to Act No. 455/1991 Coll. on Trade Business (hereinafter referred to as the “Trade Business Act”), the income obtained will be considered income from trade, in accordance with the provisions of § 6 (1) (b) of Slovak Income Tax Act.

The taxpayer, if earning this type of income, is obliged to determine the partial tax base of personal income tax according to § 6 (1) and § 6 (2) of Slovak Income Tax Act, based on the general provisions for determining the tax base in accordance with Slovak Income Tax Act. In the tax period in which the taxpayer has earned income from the sale of NFTs, the partial tax base is determined as the difference between the income obtained and the demonstrably incurred expenses, if the taxpayer kept records in the system of simple accounting or maintained tax records for these purposes. If the taxpayer kept records in the double-entry accounting system, the tax base will be based on the achieved accounting result. In both cases, the taxpayer is required to make the necessary adjustments in accordance with the

relevant provisions of Slovak Income Tax Act. If the taxpayer decides not to apply demonstrable tax expenses, he may apply flat-rate expenses of up to 60 % of the total income obtained, up to a maximum of EUR 20 000.[44]

The determined partial tax base according to § 6 (1) and § 6 (2) of Slovak Income Tax Act can be reduced by several non-taxable parts of the tax base and tax bonuses in accordance with the Income Tax Act.[45] At the same time, the taxpayer may deduct a tax loss incurred in previous tax periods from the determined tax base up to 100 % of the tax base (in the case of a micro-taxpayer) or up to 50 % of the tax base.[46]

The tax rate of 15 % is applied to the calculated tax base consisting of partial tax bases of income according to § 6 (1) and § 6 (2), after reducing it by relevant non-taxable parts and tax bonuses, if the taxpayer did not exceed the total taxable income of EUR 49 790 for the given tax period. Otherwise, a tax rate of 19 % or 25 % will be applied to the calculated tax base, depending on the resulting amount of the tax base.[47]

Similarly to the case of an individual who generates income from the sale of NFTs outside their business activities, in the case of a taxpayer who engages in buying and selling NFTs as their business activity, we also draw attention to the obligation to pay health insurance contributions on this type of income at a rate of 14 %.[48] Furthermore, this individual may also be required to pay contributions to the social security agency at a rate of 33,15 % of the basis of assessment.[49]

[44] § 6 (10) of Slovak Income Tax Act

[45] § 11 and § 33 of Slovak Income Tax Act

[46] § 30 (1) of Slovak Income Tax Act

[47] § 15 (a) (2) and § 15 (a) (3) of Slovak Income Tax Act

[48] § 12 (1) (c) of the Act No. 580/2004 Coll. on health insurance and on amendments to Act no. 95/2002 Coll. on the insurance industry and on the amendment of certain laws

We also add that in this case, it is possible to consider expenses incurred for demonstrably paid mandatory health insurance as deductible expenses for tax purposes. Therefore, the taxpayer can subsequently reduce their taxable income by the amount of these expenses. The taxpayer can claim these expenses through an additional personal income tax return for the tax period in which he earned taxable income from the sale of NFTs to which these health insurance expenses relate, or in the personal income tax return for the following tax period.

2.2. TAX REGIME APPLIED TO INCOME FROM THE SALE OF NFT IN THE CASE OF ITS SALE BY A LEGAL ENTITY

Assuming that the income from the sale of NFT is generated by a legal entity, the taxpayer is obligated to apply the general provisions for determining the tax base or tax loss according to the Income Tax Act.[50] The taxpayer primarily relies on the accounting result, which is determined as the difference between the achieved revenues and the incurred costs for a given tax period. This result is then transformed into the tax base for income tax purposes through relevant adjustments.

Depending on the accounting method of acquired NFT, the taxpayer may also have additional specific tax obligations arising from Slovak Income Tax Act. For example, if the taxpayer includes the acquired NFT to the company's property as long-term intangible assets with

[49] **Here**.

[50] § 17 to § 29 of Slovak Income Tax Act

a useful lifespan of more than one year, he will be required to gradually include the associated acquisition costs as tax deductible expenses of the company through tax depreciation, which will be in the same amount as the corresponding accounting depreciation.[51]

In the case where the acquisition price of the respective NFT is lower than EUR 2 400, but the company intends to hold the NFT for a period longer than one year, the company may consider such assets as long-term small-value intangible assets. In this case, the company can choose to recognize the acquisition cost of the NFT as a one-time expense charged directly to the costs, which will also be fully tax deductible.[52]

Subsequently, when selling an NFT considered a long-term intangible asset, the residual value of this asset will be considered as the expense, while in other cases, the acquisition cost of the NFT, including associated acquisition costs, will be considered as the expense. Conversely, the revenue from the sale of NFT will be recognized. If the revenues exceed the costs related to the sale, the legal entity will achieve a profit from this transaction, which will be subject to income tax. Otherwise, it will incur a loss, which will be part of the accounting result.

The company may also generate income from the use of long-term assets consisting of acquired NFT if the company does not directly sell them but only provides the right to use these assets to other individuals. In this case, the generated revenues will be included in the company's total revenues and will affect the accounting result of operations, from which the company will determine the tax

[51]§ 22 (7) and § 22 (8) of Slovak Income Tax Act

[52]§ 13 (2) and § 13 (3) of the Measures of the Ministry of Finance of the Slovak Republic dated December 16, 2002 no. 23054/2002-92, which establishes details on accounting procedures and the general accounting framework for entrepreneurs accounting in the double-entry bookkeeping system

base for income tax purposes through subsequent adjustments.

In the case where the company acquires NFT with the intention of holding them for a short period not exceeding one year, and thus accounts for them as short-term assets (stocks), the expenses incurred to acquire them will be recognized as a one-time full expense directly attributable to costs. These expenses will also be tax deductible expenses affecting the accounting result on the cost side. At the same time, the income generated from the sale of such stocks will affect the accounting result on the revenue side.

The determined tax base of the income tax for a legal entity, which can be reduced by the deduction of incurred tax losses from previous tax periods, is subject to corporate income tax at a rate of 15 %, if it concerns a taxpayer who has not achieved total taxable income (revenues) exceeding the amount of EUR 49 790 for the given tax period. If the achieved taxable income (revenues) in the tax period exceeds this amount, a tax rate of 21 % will be applied.[53]

In the conditions of the Slovak Republic, the taxpayer reports the amount of the achieved accounting result of operations, its adjustments including deductible and non-deductible items, the deduction of tax losses, and other mandatory requirements in the tax return for corporate income tax.

HU According to the Hungarian PIT Act, the concept of a transaction with a crypto-asset should be a transaction accessible to anyone. The "black box principle" applies to the sales of crypto assets: transactions performed within the crypto world are not taxable, only exits from the crypto world trigger tax liability. It means that if the NFT is sold for cryptocurrency, it is not a taxation point, however, if the seller receives fiat currency for it, then tax must be paid after the profit derived from the sales.

[53]§ 15 (a) (1) of the Income Tax Act

If the seller receives profit on the sale of NFT, then “only” 15 % tax must be paid after that, but no tax allowances are available. It should be noted, that up to a specified income limit (up to the minimum wage per tax year, in 2023 HUF 232 000), no tax liability arises.

Expenses incurred in connection with the acquisition of crypto assets, the market value of the cryptocurrency at the time of acquisition and other related fees may be deducted from the fair market value of the cryptocurrency sold only if the acquisition and sale took place in the same year. If the sale and acquisition take place in different years, the revenue of the sale is taxable.

Gains and losses on transactions can be offset against each other within two years (tax equalization).

TAX OPTIMIZATION AND NFTS

Tax planning is the acting of a tax entity which leads to the reduction of tax liability by analysis and investigation of all legal options. When searching for a procedure for determining the amount of tax in various situations, one can often find multiple solutions, and it is not always clear which procedure is the most suitable for the taxpayer from the point of view of optimizing taxation.

The best well-known concept from the point of view of tax optimization of natural persons is the application of actual expenses versus the application of flat-rate expenses. Further optimization of a tax burden is possible through the cooperation of persons, where taxpayers can partly transfer their income from self-employment, including expenses, to their cooperating persons. A cooperating person can be a spouse, a person who lives with the taxpayer in common household, or a family member who participates in the operation of the family business. A cooperating person cannot be a child with compulsory education, a child for whom a tax benefit is applied, or a spouse if the taxpayer applies a tax discount for him/her. If taxpayers cooperate with their spouses, it can be up to 50 % of the achieved income and expenses, a maximum of CZK 540 000 per year (CZK 45 000 per month). For other cooperating persons, a maximum of 30 % of income and expenses is allowed, a maximum of CZK 180 000 per year (CZK 15 000 per month). The ratio of income and expenses must be the same for the taxpayer and the cooperating person.[54]

Unlike cryptocurrencies, the Slovak legislation does not specifically define income from NFT transactions, which can be considered as cryptoassets.

[54]Section 13 of Act No. 586/1992 Coll., providing for income taxes, as amended.

That is why multiple tax regimes can be applied to them, depending on various factors that influence the determination of the type of income. However, the choice of the optimal taxation regime cannot be arbitrary and must respect the basic legislative requirements of the respective type of the income.

Despite the relatively straightforward taxation of income for individuals, it can be significantly more advantageous to conduct NFT transactions as a legal entity due to the range of applicable items that can affect the tax base.

Among the basic tools that can optimize the tax base for legal entities are the mutual inclusion of profits and losses from various business activities, allowing for the inclusion of losses incurred from NFT transactions and the possibility to offset tax losses achieved in past. Additionally, this regime may offer the lowest tax burden, mainly in a case of the income amount up to nearly 50 thousands euros.

On the other hand, it is important to mention that this method of taxation of NFT income entails more administration and initial bureaucracy in establishing a company. Therefore, it is crucial to consider all pros and cons of different alternatives and take into account the specific possibilities of the taxpayer.

When trading a specific asset, it is generally advisable to resolve several fundamental questions: How is the asset acquired? What is the purpose of acquiring and duration of holding of the asset? What is the role of the person trading or dealing with the asset? What tax regime applies to the income generated from the selected asset? The answers to these questions create an opportunity to reduce potential tax burden within the limits of the law, i.e. tax optimization.

The selection of the most advantageous tax regime for trading NFTs depends on several aspects, which are described in more detail in the chapter

titled "What tax regime applies to income from the sale of NFTs?". This chapter builds upon provisions of Act No. 595/2003 Coll. on Income Tax, as amended.

First and foremost, it is necessary to mention that income from the sale of NFTs or cryptoassets, unlike income from the sale of cryptocurrencies, is not separately defined within Slovak tax legislation.

From the perspective of an individual, it is crucial to assess both the method of acquisition and the purpose of trading NFTs. The person's position, whether they engage in the creation, purchase, and sale of NFTs as a business activity or not, is also an important factor. It is also essential to consider whether the transfer of NFTs to a new owner includes related copyright. Based on these factors, several tax regimes are distinguished within the conditions of the Slovak Republic.

If an individual decides to purchase NFTs exclusively for the purpose of investing their disposable funds into a modern form of short-term investment that will be sold within a short time frame, the resulting income will be subject to income tax at a rate of 19 % or 25 %. The income achieved from such trading activities without associated copyright can be reduced for tax purposes by the amount of tax-deductible expenses, but only up to the amount of the income achieved (i.e. it is not possible to claim a tax loss). Unfortunately, the current legislation does not allow for any exemptions to be applied to other income achieved from NFT transactions, such as those applied to income from the sale of securities or occasional activities.

Similarly, income derived from the use of copyright for NFTs, such as income from the use of artistic works and granting permission for their use by the original author, is subject to taxation. However, it is also not possible to achieve a tax loss in this case. Additionally, both types of income mentioned above are subject to health insurance contributions, which, on the other hand, can be included as tax deductible ex-

penses. However, it is possible to apply flat-rate expenses of up to 60 % of the total income, up to a maximum of EUR 20 000, in this case.

A different tax regime applies if an individual achieves income from NFTs within their business activity or outside of the business activity, such as income from the creation of NFTs as artwork, reproduction and distribution of NFTs at their own cost, or assignment of NFT copyright to a new owner. In these cases, the individual can apply a much broader range of optimization tools for calculating their tax liability. These tools include:

- a wider range of tax-deductible expenses,
- the option to apply a flat-rate expense of 60 % of the total income, up to a maximum of EUR 20 000,
- non-taxable parts of the tax base and tax allowances (non-taxable part of the tax base for the taxpayer - up to EUR 4 922,82 in 2023, non-taxable part of the tax base for the spouse of the taxpayer - u to EUR 4 500,86 in 2023, non-taxable part of the tax base from contributions to supplementary pension savings - up to EUR 180 in 2023, child allowance, tax bonus on paid mortgage interest),
- the possibility of deducting tax losses from previous periods up to 50 % of the tax base, or up to 100 % of the tax base for a micro-taxpayer,
- reduced tax rate of 15 % for micro-taxpayers.

However, it is necessary to mention that individuals must also contribute to health insurance (14 % of the assessment base) and social insurance (33,15 % of the assessment base) from these types of income.

In the case of trading NFTs as a legal entity, we can refer back to the chapter What tax regime applies to income from the sale of NFTs?. It states that when choosing an optimal tax regime, it is necessary to consider the purpose and conditions of acquiring the NFT and how it is accounted for in the books. In general, the tax rate applicable to income

from the sale of NFTs, creation of NFTs, or other income derived from the use of copyright for NFTs, for legal entities ranges from 15 % for micro-taxpayers to 21 %. However, in this case, the amount of income tax is determined based on the achieved financial result (the difference between revenues and expenses) transformed into the tax base.

The application of tax expenses primarily depends on how the NFT is accounted for, whether it is classified as a long-term intangible asset or as a short-term asset (inventory). Based on this, either the value of the NFT is included in the financial result and in tax expenses gradually through depreciation period, or it is accounted for only upon its sale. It follows that the way the NFT is classified as an asset of the company determines whether the company will reduce its tax liability gradually in proportional parts each year or in full in the year of the NFT sale.

It is also worth mentioning that in the case of assessing the income of legal entities, it is possible to report a tax loss, which can be deducted from the company's tax base in subsequent years, ultimately reducing its tax liability for the given year.

Considering the mentioned legislative provisions, choosing the optimal tax regime for trading NFTs depends on several aspects. From the perspective of income taxation, trading NFTs as a legal entity appears to be the most optimal as it offers the greatest potential for tax optimization and the lowest tax burden. This form of business also allows for the consolidation of profits and losses from different business activities and the offsetting of tax losses in periods when the legal entity achieves a tax base. However, this approach depends on the intention behind the trading activities. Individual preferences and possibilities of the taxpayer, whether an individual or a legal entity, are also important considerations when deciding on the appropriate tax regime. Therefore, it is recommended to consult the optimal tax regime with a tax ex-

pert for assistance in setting up, taking all these aspects into account.

In 2022 a crypto tax equalization rule was also introduced:

If a profitable year is followed by a loss year within two years, the tax already paid on the profit can be reclaimed later - to the extent of the loss.

If the private person has a loss in one year (e.g. the acquisition cost exceeded the market value of the crypto asset at the time of sale) the tax on the loss can be used to reduce the tax liability of the profits of the following two years under certain conditions (e.g. the loss has to be declared in the current tax return as amount eligible for tax equalization).

Please note, that crypto assets can be transferred to the trust, opening up the possibility of tax planning. The trust itself is tax-exempt if the settlor is a private individual and only realises financial income (e.g. profit deriving from the sales of crypto assets). As a general rule, the distribution of assets from a trust to the beneficiary or the money that replaces them is also exempt from personal income tax, meanwhile, the distribution of the income earned in the trust is taxed as if it were a dividend (15 % PIT plus a maximum of HUF 724 000 social security tax).

As a general rule, crypto assets cannot be placed in a permanent investment account (TBSZ). However, it is possible to buy investment fund shares where the investment fund invests the investors' money in crypto-assets, among other things. In this case, the capital gain of the share may become tax-free after 5 years.

HOW TO ACCOUNT FOR NFTS TRADES?

CZ When accounting for NFTs, due to the lack of their definition in law their true nature needs to be considered[55]. Accounting must be based on the basic nature of NFTs, how they were acquired, what the accounting entity intends to do with them, and how they will be sold. They may include NFTs carrying created artwork, game skins, or other unique items. The accounting entity may have produced its NFTs, or it may have purchased NFTs. In both cases, NFTs may lose their value over time, or NFTs may be expected to increase in value in the future, rather than decrease in value. An entity may intend to hold an NFT for a longer period, to resell it immediately, or only to grant licenses to other users to use the NFT.

1.1. SELF-CREATION AND PURCHASE OF NFTS

When accounting for the acquisition of NFTs, first the accounting unit needs to distinguish whether the useful life will be more than one year, or whether it will be shorter, and whether NFTs are acquired for their resale. Based on such information, NFTs will either be accounted for as long-term intangible assets or as inventories.

1.1.1. LONG-TERM ASSETS

If an accounting entity acquires an NFT, the assumed useful life of which is more than one year and which exceeds the limit set in the accounting

[55]Section 7 of Act No. 563/1991 Coll., providing for accounting, as amended.

entity's internal accounting guidelines for long-term assets, such NFT will be accounted for as a long-term intangible asset in accounting group 01 – Long-term intangible assets. During the acquisition of long-term intangible assets, acquisition costs are charged to account 041 – Unfinished long-term intangible assets. In the case of NFTs created by own activities, the costs associated with the acquisition of assets according to the company's calculation are capitalized into the acquisition price of the asset via account 587 – Capitalization of long-term intangible assets. As soon as an NFT is in a state suitable for use, which means the completion of the acquired property and the fulfilment of the specified functions and duties established by legal regulations for its use, the value of account 041 - Unfinished long-term assets is transferred to the relevant active account of group 01 - Long-term intangible assets. Once an NFT has been classified as an asset, the accounting unit can start depreciating the NFT via account 551 - Depreciation of long-term tangible and intangible assets and account group 07 - Amortization of long-term intangible assets. If an NFT does not exceed the set limit of the accounting unit for long-term intangible assets, this asset and the costs associated with its acquisition are charged directly to the costs of account 518 – Other services.

1.1.2. SHORT-TERM ASSETS

If an entity creates its own NFTs and their expected useful life is less than one year, such NFTs will be accounted for as inventory, if NFTs are produced for resale. Inventory can be accounted for in two different ways – method A and method B. In the case of accounting for inventory under method A, during the accounting period the value of inventory is charged to the appropriate balance sheet account, and then the value of inventory is transferred to costs when it is sold. Under method B, stocks are charged directly to costs during the year, and according to stock records, unconsumed stocks are transferred to the appropriate balance sheet account at the end of the accounting period. Adjustments to inventory, if necessary, would be created via accounts 559 – Creation and settlement of adjustment items in the operating area and via group of accounts 19 – Adjustments to inventory. Temporary decreases in values of assets through adjustment items are not included in the tax base.

If an accounting entity creates its own NFTs, the accounts of accounting group 12 – Inventories of own production are used when accounting for stocks. Accounting group 58 – Change in inventory status of own production is used when accounting for costs.

If the accounting entity buys ready-made NFTs, account group 13 – Goods is used when accounting for inventory, and account 504 – Sold Goods is used when accounting for costs.

1.2. SALE OF NFTS

When selling NFTs, accountants need to consider the method of acquisition and the nature of NFTs and related accounting. Depending on whether the acquisition involved long-term intangible assets, low-value long-term intangible assets, or inventory, the sale will subsequently be accounted for in a different way.

1.2.1. LONG TERM ASSETS

When selling NFTs which were included in account group 01 - Long-term intangible assets, the proceeds from the sale of such assets will be charged to account 641 - Revenues from the sale of long-term intangible and tangi-

ble assets. If this asset has not been written off in full, the residual value of this asset will be charged to accounts 541 – Residual value of sold long-term intangible and tangible assets and to the relevant account of accounting group 07 – Amortization of long-term intangible assets. Retirement of assets is recorded through the accounts of accounting groups 07 – Depreciation on long-term intangible assets and 01 – Long-term intangible assets.

1.2.2. SHORT-TERM ASSETS

In the case of sale of NFTs booked to inventory accounts, there will be a difference between NFTs created by own activity and purchased NFTs, and at the same time there will be a difference based on the method of accounting for inventory.

If the accounting entity accounts for inventory in the A method, at the moment of sale it must account for the decrease in inventory from accounting group 12 – Inventories of own production against costs within accounting group 58 – Change in inventory status of own activity (in the case of NFTs created by the accounting entity); or within the accounting group 13 – Goods against expenses within accounting group 504 – Sold Goods (in the case of purchased NFTs). Revenues from sales will be charged to account 601 – Revenues for own products (in the case of NFTs created by the accounting entity), or to account 604 – Revenues from the sale of goods (in the case of purchased NFTs).

SK When accounting about NFT in the accounting books, it is necessary to distinguish several aspects that affect the way they are booked. It is necessary to distinguish between the following 3 situations:

1) Self-creation of NFT
2) Purchase and sale of NFT

3) Exchange of NFT (barter of NFT).

In addition, it is necessary to distinguish in terms of time whether the respective assets are short-term or long-term. The temporal aspect of NFTs is determined by purpose of their possession. The purpose of their possession may be the receiving of income from their possession or its trading.

It is important to mention that opinions on the accounting of NFTs can vary across the countries, as there is currently no comprehensive unified procedure for accounting for NFTs. In such case, it is necessary to refer to the general accounting principles stated by the Decree of the Ministry of Finance of the Slovak Republic No. 23054/2002-92 of December 16, 2002, which establishes details on accounting procedures and the framework chart of accounts for entrepreneurs using the double-entry accounting system in the territory of the Slovak Republic.

2.1. SELF-CREATION OF NFT

People who decide to create own NFTs may have different interests. However, the purpose of the creation affects the way how the NFTs are booked. When issuing own NFT, it may be accounted as a long-term intangible asset or as an inventory.

2.1.1. LONG-TERM ASSETS

NFTs may have the character of long-term intangible assets when the accounting entity is interested in receiving income as a result of holding of NFT.

The classification of NFTs as assets should be based on their valuation. When NFTs are issued on own account, accounting unit accounts an activation of

own costs. Acquisition costs are accounted when purchased goods and services from other accounting entities are included in the entry price of NFT.

The cost of self-generated NFTs should be recorded as a debit to account 041 - Acquisition of intangible long-term assets and as a credit to account 623 - Activation of intangible long-term assets. When goods and services that are related to issuance of NFT are purchased from other accounting units, it is necessary to include the related costs in acquisition-related costs as a debit to account 041 - Acquisition of intangible long-term assets and credit to the account 321 – Suppliers. Once NFT is finished it is classified as another long-term intangible asset booked at the account 019 - Other long-term intangible asset.

2.1.2. SHORT-TERM ASSETS

When NFT is issued for the purpose of sale, including all related rights, it is considered as an inventory for the purposes of the accounting. Specifically, we can consider the NFTs issued as own product that is recorded as a debit to account 123 – Products and credit to account 613 - Change of own products. The NFT created in this way needs to be valued at the costs incurred by the accounting entity within the process of its creation, which are assessed as follows:

- actual costs incurred in production phase,
- internal prices determined based on calculation,
- a combination of actual costs and internal prices.

If NFT is not in its final version and thus cannot be considered as a product, it is also accounted as an inventory, however, it should be recorded as a debit to account 121 - Unfinished production and credit to account 611 - Change of unfinished production.

Based on these rules, the increase of unfinished NFTs is recorded as a debit to account 121 - Unfinished production and as a credit to account 611 - Change of unfinished production, at the value of the own costs, until their final completion. Subsequently, upon completion, it is necessary to first record the decrease in unfinished NFTs valued at own costs as a debit to account 611 - Change of unfinished production and a credit to account 121 - Unfinished production. The second step is to record the completed NFTs as a debit to account 123 - Products and a credit to account 613 - Change of products.

2.2. PURCHASE AND SALE OF NFT

2.2.1. PURCHASE OF NFT

Accounting unit acquires NFTs for the purpose of trading or for the purpose of receiving income resulting from their holding, similarly to the self-creation of the NFT. If the purpose of their acquisition is for subsequent sale, they are accounted as short-term assets, or as current assets. If the purpose of their acquisition is for receiving the income a s a result of their holding, we account them as long-term intangible assets.

2.2.1.1. SHORT-TERM ASSETS

From the perspective of short-term use of NFTs, it is possible to account the acquisition of NFTs as an inventory, treating them as goods. The acquisition of NFTs for the purpose of short-term use (further trading with NFTs) is recorded as the acquisition of goods, debited to account 131 - Purchase of goods and credited to account 321 - Suppliers. In addition to the actual price of the NFT, other expenses related

to its acquisition, such as costs for bank transfers or other transaction related fees, are also recorded on account 131 - Purchase of goods.

The final booking of NFTs as an inventory once the purchasing process is complete will be recorded at the acquisition costs on the debit of account 132 - Goods in stock and stores, and on the credit of account 131 - Purchase of goods.

The decrease in the value of NFT recorded in books will be accounted through the provisions within the closing accounting operations performed at the end of the accounting period. These provisions are recorded as a debit to account 505 - Creation and reconciliation of provisions to the inventory and a credit to account 196 – Provisions to the stocks. This provision is only recorded if there has been a temporary decrease in the value of the stocks. No entry is made for an increase in the value of an inventory. This means that the revenue from any increase in the value of the NFT is recorded in accounting only at the moment of its sale. The only case in which an increase in the value of stocks is recorded is when there is an increase in the value of goods for which a provision has been created, which is offset by an opposite accounting entry in the corresponding amount.

2.2.1.2. LONG-TERM ASSETS

An NFT acquired for the purpose of generating revenue from its holding will be accounted as long-term intangible asset and will be valued at the acquisition price. Its acquisition will be recorded as a debit to account 041 - Acquisition of long-term intangible assets including the expenses incurred during its acquisition and a credit to account 321 - Suppliers, which records the liabilities arising from the asset acquisition. Similar to stocks, in the case of acquiring NFTs classified as long-term intangible assets in the books, the acquisition price includes not only the purchase price, but also other expenses related to the acquisition,

such as transaction fees or other fees associated with purchasing NFTs. Subsequently, the asset is included in the records at its acquisition price through an entry debiting account 019 - Other long-term intangible assets and crediting account 041 - Acquisition of long-term intangible assets.

An advantage of acquiring NFTs as long-term intangible assets is the ability to depreciate them over their estimated useful life, which is the period during which the entity expects to derive economic benefits from the asset. The entity can choose the duration and method of depreciation, but it should reflect the expected period of usefulness during which the entity anticipates economic benefits. Accounting depreciation aligns with tax depreciation of the intangible asset and it is recorded as a debit to account 551 - Depreciation of long-term intangible assets and tangible assets and a credit to account 079 – Cumulative depreciation of other long-term intangible assets.

In the case of changes in the value of long-term intangible assets, a similar approach is followed as with short-term assets. This means that no accounting entry is made for an increase in the value of the asset. However, a temporary decrease in its value is recorded through provisions entries for long-term intangible assets by debiting account 553 - Provision and reconciliation of provisions created to long-term assets and crediting an account 091 - Provisions for long-term intangible assets. This operation is performed as a part of the closing accounting operations at the end of the accounting period when the accounting entity assesses whether there has been a temporary decrease in the value of this asset. If the value of the asset increases again, the allowance entry is reversed.

2.2.2. SALE OF NFT

2.2.2.1. SHORT-TERM ASSETS

Sales of NFTs that are booked as stocks are debited to account 504 – Sold goods and credited to account 132 – Goods in stock and in stores. Revenue from the sale of stocks shall be debited to account 311 – Customers and credited to account 604 – Revenue from goods.

2.2.2.2. LONG-TERM ASSETS

If an NFT is recorded in the books as a long-term intangible asset for the purpose of generating revenue from its use, its utilization should be considered as a service provision. This service entails granting the right to use the NFT (for playback or reproduction, etc.). In such a case, the provision of the right to use the NFT should be recorded as a debit to account 311 - Customers and a credit to account 602 – Revenue from provided services.

When selling an NFT classified as long-term intangible asset, including all related rights, its disposal is recorded as a debit on account 541 – Residual value of sold long-term intangible assets and tangible assets and credit to account 079 – Cumulative depreciation of other long-term intangible assets (if NFT is subject to depreciation) or directly to account 019 - Other long-term intangible assets if it has a value of less than EUR 2 400 and the accounting entity has not decided to apply the depreciation. The revenue generated from the sale of the NFT is recorded as a credit to account 641 - Revenue from the sale of long-term intangible assets and tangible assets and as a debit to account 311 - Customers, where the receivable against the buyer is recorded.

2.2.3. EXCHANGE OF NFT (BARTER OF NFT)

The exchange of NFTs for other NFTs may be realized by mutual contractual agreement between the two parties. Such a mutual exchange is considered a barter. However, barter trade is not regulated in Slovakia in a more detailed way by the Act no. 431/2022 Coll. On accounting as amended, and therefore it is necessary to follow the general accounting principles.

For the acquisition of NFTs through barter trade, it is necessary to consider the provision § 25 section 1 letter e) point 2 of the Accounting Act according to which the NFT thus acquired should be valued at fair value.

When accounting about barter, the same procedures are applied as in case of the accounting of the purchase and sale of assets or stocks.[56] This means that both the seller and the buyer will account according to the purpose for which the NFTs were acquired.

HU There is no clear regulation in the case of corporate crypto transactions, which is why there is a high degree of legal uncertainty in this area.

Neither accounting nor tax law (corporate tax) regulations contain a special approach to corporate crypto transactions.

According to the position of the tax authority crypto-assets should be shown in the books as receivables.

During the holding period, dilemmas with tax implications may arise regarding the valuation and irrecoverability of the crypto-asset (e.g. accounting for impairment, release of receivables,accounting as bad debt, valuation, etc.).

[56]Accounting and barter trading [Online]. Available **here.**

In contrast to acquisition and holding, the withdrawal and sale of crypto-assets for HUF/foreign exchange seems to be the most manageable area in traditional terms, because it is difficult to argue with the fact that when the crypto-asset is sold outside the crypto-world, a difference in the form of a return or loss arises, which may result in tax liability (in contrast exchange within the crypto world certainly does not result in tax liability).

In corporate tax, the return becomes taxable directly, when the result is generated, but in small business tax (KIVA), tax is payable "only" when dividends are paid.

The potential loss can be used in corporate tax for the next 5 years up to 50 % of the positive tax base, and it can also be enforced in the event of a transition to small business tax.

Summarizing the above, due to gaps in Hungarian accounting regulations, the assessment of corporate crypto transactions is still controversial at the moment, and this kind of legal uncertainty does not favor crypto traders.

The regulation does not deal with the uncertainty of the original crypto acquisition (mining is not always successful), so the accountability of any loss is doubtful, there are also question marks regarding the evaluation of the crypto asset during the holding period, the classification of the returns from the ICO, and the location issue, etc.

WHAT DOES IT TAKE TO CREATE AND SELL NFTS?

Understanding blockchain technology and the crypto ecosystem is essential in navigating fees and pricing in NFTs. Selecting the right blockchain and marketplace for minting and selling NFTs is crucial. The creation of an NFT from the moment of scanning to the sale consists of several main steps, which will significantly affect the pricing.

1. **3D Scanning** (this was already described in the first chapter)
2. **Choosing the right Blockchain technology**
3. **The choice of Crypto-wallet**
4. **How to choose which marketplace is the best for me?**
5. **Pricing and selling NFTs**

2. CHOOSING THE RIGHT BLOCKCHAIN TECHNOLOGY

Such a massive expansion of NFTs in past years has led a lot of digital artists and creators to want to launch their own NFT projects. Nevertheless, users are often confused when it comes to choosing a blockchain for developing their NFT project – for the digitization of the object for the purpose of selling NFT. NFT mechanics make it possible to give such a digital object authenticity. This means that it is coded and clear in the blockchain that it is one particular object, so it is something like an artistic certificate that is unforgeable. You could say that it is a currency stored in the form of digital art that can be returned to the market at any time.

First, you need to consider a few factors in choosing the right blockchain for your NFT. Among others, the most important factors overall are transaction speed and cost.

The most used one is Ethereum. Mainly because it is highly decentralized, it offers the necessary legal and financial services for transactions without the need for intermediaries. Ethereum was the first blockchain to introduce smart contracts – the technology that made non-fungible tokens possible. Moreover, almost all prominent NFT marketplaces that constitute most of the industry's trading volume are developed on the Ethereum network. However, because of Ethereum's scalability issues, it's difficult to use for large-scale apps.

Flow is designed specifically for NFT and decentralized application (DApp) development. It is known for its scalability, low transaction costs, and support for NFT standards like Fungible Token (FT) and Non-Fungible Token (NFT) as well as Cadence smart contracts. Flow is ideal for gaming and entertainment-related NFTs. It is one of the most popular alternatives to the Ethereum blockchain. Flow has dominated the market specifically in the sports NFTs sector.

Polygon is a Layer 2 scaling solution for Ethereum that aims to alleviate scalability issues. It offers faster and cheaper transactions while remaining compatible with Ethereum. Developers can deploy NFTs on Polygon while benefiting from Ethereum's security. Polygon is a popular choice for NFT projects that aim to boost the user experience and reduce high gas fees. Creators can mint and sell Polygon NFTs on marketplaces such as PlayDapp, Refinable, NFTrade, and OpenSea.

Ethereum still remains the default choice for many NFT projects due to its established ecosystem, but newer blockchains like Binance Smart Chain, Flow, and Polygon are gaining traction for

their cost-effectiveness and scalability.

3. THE CHOICE OF CRYPTO-WALLET

Again, the choice of a crypto-wallet depends on your specific needs and preferences. Due to this, we can provide you with information about popular wallets that are well-regarded by the cryptocurrency community.

Ledger Nano S or Ledger Nano X (Hardware Wallets) are known for their high level of security. They store your cryptocurrency offline, making them immune to online hacking. Ledger devices support a wide range of cryptocurrencies and provide strong backup and recovery options. They are an excellent choice for long-term storage of significant amounts of cryptocurrency.

Trezor (Hardware Wallet) is another reputable hardware wallet that offers strong security features and supports various cryptocurrencies. It is user-friendly and has a good track record in the cryptocurrency community.

Exodus (Desktop and Mobile Wallet) is a user-friendly multi-currency wallet with a visually appealing interface. It provides you with full control over your private keys and supports a wide variety of cryptocurrencies. It's a good choice for both beginners and experienced users.

Electrum (Desktop Wallet) is a popular open-source desktop wallet that has been around for a long time. It is known for its security features and is particularly popular among Bitcoin users.

Coinbase (Online and Mobile Wallet) is a user-friendly online wallet that is integrated with an exchange platform. While it's convenient, it's important to note that you don't have full control over

your private keys when using Coinbase. It's a good option for those who want to start with a user-friendly wallet but may not be the best choice for advanced users who prioritize full control over their keys.

MetaMask (Browser Extension Wallet) is a popular Ethereum wallet and browser extension that allows you to interact with Ethereum-based DApps (decentralized applications). It's well-regarded in the DeFi and NFT communities and offers a high level of control over your assets.

The choice of wallet should depend on your specific use case, security requirements, and preferences. For long-term storage of significant amounts of cryptocurrency, hardware wallets like Ledger or Trezor are often recommended. For day-to-day transactions and accessibility, mobile wallets like Exodus or online wallets like Coinbase may be more convenient.

4. HOW TO CHOOSE WHICH MARKETPLACE IS THE BEST FOR ME?

Choosing the right NFT (Non-Fungible Token) marketplace that suits your needs and goals is an important decision in the world of digital collectables and art. We can provide you with some tips:

Tip #1: Understand Your Goals

If you're an artist, consider whether you want to sell unique pieces, limited editions, or open editions of your art. Content creators may want to tokenize exclusive content, merchandise, or experiences. Game developers may want to tokenize in-game assets or virtual land. If you have a unique digital item, decide if you want to auction it or set a fixed price.

Tip #2: Know the type of your NFT

Different NFT marketplaces focus on specific types of NFTs. For example, if you're an artist, platforms like SuperRare and Foundation are known for digital art, while Decentraland focuses on virtual real estate. Choose a marketplace that aligns with the type of NFTs you want to mint.

Tip #3: The right target group – learn about the community and audience

You want to sell NFTs and you want to make money on it, right? Explore the marketplace's community by visiting forums, social media groups, and Discord channels. Engage with the existing community to get a sense of its size, activity, and enthusiasm.

A marketplace with a strong and engaged user base can provide more exposure to your NFTs, you can choose by the type of users or previously sold NFTs.

Tip #4: Fees and Costs

Consider the cost structure of the marketplace:

- Some platforms charge a fee for minting NFTs.
- If the marketplace is on the Ethereum blockchain, you'll need to pay gas fees for transactions.
- Many platforms take a commission on each sale.

Calculate the total cost of minting and selling NFTs on the platform to ensure it aligns with your budget.

Tip #5: Licensing and Rights

Review the marketplace's terms of service and intellectual property policies to understand how your NFTs and associated rights will be handled. Questions to consider:

- Will you retain copyright over your work?

- Are there any restrictions on how your NFTs can be used?
- Can you sell or license your work elsewhere?
- Is there a “commercial use” clause, and how is it defined?

Different NFT markets have their own benefits and negatives, and the choice depends on the particular needs and preferences of the trader. Here is an overview of some of them:

	BENEFITS	NEGATIVES
OpenSea	• Large user base and popularity. • Support for various types of NFTs including art, games and virtual worlds. • Easy to use and clear interface.	• High competition, which can mean more difficult visibility for new creators. • Transaction costs can be high during periods of increased interest in NFTs.
Rarible	• Ability to create own tokens (RARI) and earn commissions from sales. • Decentralized approach with more control of creators over content. • Ability to quickly create your own NFT without programming.	• Smaller user base compared to some other markets. • May be more technically demanding for beginners.
SuperRare	• Focus on high-quality digital art and renowned artists. • Sharing 10% of each sale with the creator of the original work. • An active community of artists and collectors.	• Access to this platform may be restricted and may require an invitation. • Fees may be higher compared to other markets.
Nifty Gateway	• A combination of auctions and "drops" for the sale of NFTs. • Rapid emergence on the scene and popularity. • Support for different types of content and projects.	• Comprehensive transaction and authentication processing for new users. • Fees and commissions are sometimes higher.
MakersPlace	• Focus on digital art and content creators. • Possibility to publish editions of works of art. • Creator and community support.	• Lower popularity compared to some major markets. • Competition with other artists.

These are just some of the possible benefits and negatives of individual markets for NFTs. It is important to note that NFT markets evolve and change, and what is true today may change in the future. Before creating and selling NFTs, it is important to thoroughly research a particular market, its conditions, and the community that forms it.

5. PRICING AND SELLING NFTS

The pricing of NFT sales itself is crucial from several points of view. In the first step, it is important whether you are minting the NFT or selling it on the secondary market. NFT artworks initially sell or release on their own site (primary market) where customers can purchase and mint them for the first time. Over time, these NFTs may find their way to NFT marketplaces if those same customers sell their NFTs to new customers (secondary market).

It is important to decide whether it is an exclusive NFT or limited edition (small pieces), or it will be mass “production” (a large number of pieces). From this point of view, it is therefore advisable to establish the form of sale. For one exclusive piece, an interesting form of NFT sale can be an auction, for larger quantities it is a unit price.

For less exclusive variants – i.e. for high-quality digital prints and animations, but without 3D data – we think in hundreds of EUR. Of course, the more interesting the NFT content, the higher its value. However, we often talk about works of art where the content is not often the key. As in the real world, it is very often about the context of the work, the author, the historical value, the artistic qualities of the work, and more, so we can earn more from the sale of NFT. He is often able to consider price precedent - that is, the prices for which similar works have already been sold at previous public sales.

The price also includes the type of media (2D / 3D) and object. NFT makes

sense where there is value in owning the original, not a copy. It makes a difference if it is “just” a digitized print or if it is a captured object in a unique moment with another value (e.g. historical or ecological - digitized 700-year-old Corvinus linden tree), media coverage of the sale and more.

Marketing and the story of NFT is also important for its sale itself. If you are wondering why your NFT is not selling, it might be due to a lack of awareness among the non-fungible tokens community. And we know that selling products is greatly helped by a story. The story of the piece, the idea behind the digitization, simply anything that shows the potential buyer additional added value. It can also happen that sellers can’t make any sales if there is no demand for the products.

Many buyers take NFT more as an investment. If you want to be profitable when buying and then selling NFTs, you should at least be able to estimate whether a given NFT can gain a higher value over time. Of course, we cannot determine this for many objects, since the price is determined by the market. Here we will again point to the example of the 700-year-old linden of Kráľ Matej, which, due to its age and condition, may be more susceptible to diseases or, in the case of more extreme weather conditions (any storm, stronger wind or long-term drought/rain), may be weakened or broken, or may completely fall down. No one knows exactly when or if this moment will occur, but a given NFT that has captured the state of an object without fatal damage can significantly increase its value. We can only imagine the value of, for example, the NFT of Notre Dame Cathedral before the recent fire, the value of Ayrton Senna’s captured single-seater before that last fatal drive, various art or collectable items before they were archived, and many other unique and collectable items.

It is important to capture the mood of the market and the state of the market. Not only from the point of view of a possible bear market but also from the point of view of the current situation in the world or a significant world event, since the given NFT can reflect the topic of the day/days.

However, selling NFTs is not just about the set price. It is also necessary to take into account different types of fees for sales on given marketplaces, it is also appropriate to take into account costs or other expenses associated with digitization and the creation of NFT.

WHAT ARE THE LEGAL REQUIREMENTS FOR CREATING AND TRADING NFTS?

The creation and distribution of any content, either physical or digital, is naturally subject to various legal requirements. All these requirements apply equally in the case of creating and selling NFTs. Moreover, in the case of NFTs, the particularities of this technology also come into play. Perhaps the fundamental question in the creation and sale of NFTs is whether such activity meets the characteristics of business activity. When it comes to defining business activities under the Slovak Commercial Code and the Commercial Codes of other countries within the V4 region, several criteria are taken into consideration. These criteria help determine whether an activity should be classified as a business activity or falls into another category, such as a hobby or personal pursuit.[57]

CREATING AND SELLING NFTS AS A BUSINESS ACTIVITY

The first and probably the most determining criterion is the entrepreneurial character of such activity. The Slovak Commercial Code considers an activity to be a business activity if it is carried out in a professional and organized manner with the intention of generating profit. This criterion emphasizes the commercial nature of the activity and the presence of an entrepreneurial element. The requirement of entrepreneurial character

[57]Art. 2 par. 1 Act No. 513/1991 Coll. Commercial Code

can be met by the activities of many content creators, with the issuance and sale of NFTs being no exception. Often, we encounter professional marketing approaches employing sophisticated advertising channels to promote the issued NFT and increase its selling price. From this perspective, it may appear that a relatively wide range of potential NFT creators can fulfil the requirement of entrepreneurial character while creating or selling NFTs. In this context, it is necessary to explore other criteria of entrepreneurial activity as well. The commercial aspect of an activity is considered in assessing its classification as a business activity. This involves engaging in transactions with the aim of earning income. The pursuit of commercial opportunities, marketing efforts, and monetization strategies contribute to establishing the commercial nature of the activity.[58]

The frequency and consistency of the activity play a significant role in determining whether it qualifies as a business activity. If the activity is pursued on a regular and continuous basis, it is more likely to be classified as a business activity rather than an occasional or sporadic undertaking. Consistency, as a characteristic of entrepreneurial activity, can also be defined using the argument a contrario, in comparison to occasional activity, or random and exceptional activity. From this comparison, it follows that continuity lies in the rational anticipation and repetition of such activity by the entrepreneur, even though its intensity may vary. It can be a seasonal activity or similar. Consistency in entrepreneurial activity is related to the performance of the business itself, rather than activities associated with the business (such as translation and clerical work within the entrepreneur's enterprise) or the disposal of assets that belong to the business and are part of the entrepreneur's assets (for example, one-time sales of securities, real estate, and so on). In light of the above, it shall be possible to determine whether the creation and sale of NFTs in a specific case constitute business activity, occasional

[58]Art. 8 par. 1 let. a) Act No. 595/2003 Coll. on Income Tax

activity, activity related to business, or the disposal of personal assets.

Another important factor is the level of independence exercised by the individual or entity engaging in the activity. Business activities typically involve a degree of autonomy and independence in decision-making, financial management, and organizational structure. The absence of significant control or direction from another party reinforces the notion of an independent business activity. Independence is manifested in the methods of decision-making and management of the entrepreneur's business, whether it is an individual entrepreneur or a legal entity in the case of corporate entrepreneurs. The independence of the entrepreneur is also fulfilled in cases of relationships between controlled and controlling companies, franchising, commercial representation, mandate contracts, and others. In the case of multiple entrepreneurs joining together without forming a new legal entity, each member of the association remains an independent entrepreneur. When joining through the creation of a legal entity, such as a company or cooperative, the legal entity itself becomes the entrepreneur, and its partners will not be entrepreneurs solely due to their participation in the entity. In the case of an association based on an association agreement, the involvement of entrepreneurs in its activities depends on the purpose of the association's establishment.

Business activities often involve assuming economic risks and uncertainties. This criterion examines whether the individual or entity engaging in the activity bears the financial consequences of success or failure. Assuming financial risks, such as investing capital or incurring expenses, indicates the presence of business activity. When creating an NFT for the purpose of its sale, it is always possible to discuss the aspect of risk, as it is impossible to predict with certainty how successful the sale of the NFT will be. Entrepreneurship is an activity performed "at one's own responsibility." This characteristic completes the previous features of entrepreneurship, and the term implicitly expresses the entrepreneurial risk inherent in business. The

presence of risk is a reliable criterion for distinguishing commercial relationships from employment relationships. The system of management and decision-making within the entrepreneur's business will be one of the determining factors in determining whether, in addition to the entrepreneur as a legal or natural person, another person or persons, such as statutory bodies or members of a statutory or supervisory body, will also be responsible.

It is important to note that the classification of an activity as a business activity under either the slovak commercial code or the respective laws of other countries within the V4 region depends on the specific circumstances and factual context of each case. Courts and authorities will evaluate the overall characteristics of the activity, taking into account the aforementioned criteria, to make a determination. It is advisable for content creators to seek legal advice to assess their specific activities and circumstances in relation to the criteria set forth by either the slovak commercial code or the respective laws of other countries within the v4 region to ascertain the classification of their activities as business activities.

POSSIBLE BREACH OF DATA PROTECTION RULES

Access to data, use of data, and data processing is regulated within the EU by several legal instruments. For example, the recently adopted Data Governance Act regulates the protection of all data, but only within certain relationships. The General Data Protection Regulation (GDPR) that came into effect on May 25, 2018, can be considered the sole legal act comprehensively regulating data protection at the EU level.

Under the GDPR, personal data is defined broadly as **"any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, di-**

rectly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person."[59]

The GDPR establishes several key principles that govern the processing of personal data. These principles include lawfulness, fairness, and transparency; purpose limitation; data minimization; accuracy; storage limitation; integrity and confidentiality; and accountability. Any NFT creator must therefore ensure compliance with these principles when handling personal data. The principles of data protection apply to any information concerning an identified or identifiable natural person. Personal data which have undergone pseudonymisation, which could be attributed to a natural person by the use of additional information should be considered to be information on an identifiable natural person. To determine whether a natural person is identifiable, an account shall be taken of all the means reasonably likely to be used, such as singling out, either by the controller or by another person to identify the natural person directly or indirectly. To ascertain whether means are reasonably likely to be used to identify the natural person, account should be taken of all objective factors, such as the costs of and the amount of time required for identification, taking into consideration the available technology at the time of the processing and technological developments. The principles of data protection shall therefore not apply to anonymous information, namely information which does not relate to an identified or identifiable natural person or to personal data rendered anonymous in such a manner that the data subject is not or no longer identifiable. This GDPR does not, therefore, concern the processing of such

[59]Article 2 par. 1 of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)

anonymous information, including for statistical or research purposes.[60]

Any processing of personal data should be lawful and fair. It should be transparent to natural persons that personal data concerning them are collected, used, consulted or otherwise processed and to what extent the personal data are or will be processed. The principle of transparency requires that any information and communication relating to the processing of those personal data be easily accessible and easy to understand, and that clear and plain language be used. That principle concerns, in particular, information to the data subjects on the identity of the controller and the purposes of the processing and further information to ensure fair and transparent processing in respect of the natural persons concerned and their right to obtain confirmation and communication of personal data concerning them which are being processed. Natural persons shall be made aware of risks, rules, safeguards and rights in relation to the processing of personal data and how to exercise their rights in relation to such processing. In particular, the specific purposes for which personal data are processed should be explicit and legitimate and determined at the time of the collection of the personal data. The personal data should be adequate, relevant and limited to what is necessary for the purposes for which they are processed.[61]

In the context of NFTs, compliance with the GDPR is essential to protect the privacy and rights of individuals whose personal data may be involved while creating NFTs. NFT creators operating within the EU must ensure that

[60]Recital 26 of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)

[61]Recital 36 of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)

they have appropriate legal bases, such as consent or legitimate interests, for processing personal data. They should also implement measures to secure personal data, inform users about processing activities, and respond to individuals' requests to exercise their data protection rights.

It is important to note that the GDPR has an extraterritorial effect, meaning it applies not only to subjects based in the EU but also to those outside the EU if they process the personal data of individuals residing in the EU. This has implications for NFT platforms and entities operating globally, as they may be subject to the GDPR's requirements if they interact with EU individuals in their NFT-related activities.

Overall, the GDPR plays a significant role in safeguarding individuals' rights and protecting their personal data in the context of NFTs. Compliance with its provisions is crucial for NFT platforms and entities to ensure data protection and maintain the trust of individuals engaging in NFT transactions within the EU. However, the NFT platforms and marketplaces are those subjects that store the largest amounts of personal data, including user profiles, transaction records, and potentially sensitive financial information and, therefore, those platforms and marketplaces are the main addressees of the GDPR. On the other hand, NFTs themselves can contain embedded data, such as metadata, related to the digital asset. This metadata can include information about the creator, previous owners, transaction history, or even additional personal details. If this metadata is not adequately protected, it could be susceptible to unauthorized access or misuse, compromising the privacy of individuals associated with the NFT, but once again not compromising the creator's compliance with the GDPR.

PROTECTION OF PERSONHOOD

The Civil Code is the main legal instrument that forms the basis of private

law protection of personal rights in each of the V4 countries. Comprehensive protection of personality rights is provided by legal regulations of both private and public law. In the context of the protection of personality rights in the NFTs, there is a clash between two rights - the right to freedom of expression and the right to protection of personality. It is important to emphasize international documents to which the V4 countries are bound, and the interpretation of the protection of personality rights must be in accordance with these documents and the case law of their courts. In a democratic society, freedom of expression is the foundation of all rights. Freedom of expression is guaranteed in Article 10 of the European Convention on Human Rights[62] and Article 19 of the International Covenant on Civil and Political Rights. Undoubtedly, the richest source of case law regarding freedom of expression is the case law of the European Court of Human Rights (ECtHR) concerning Article 10 of the Convention. At the same time, it should be noted that ECtHR decisions are a source of law, and the Constitutional Court of the Slovak Republic, Constitutional Court of the Czech Republic and other V4 countries takes into account ECtHR decisions in its rulings, as explicitly stated in the decisions of the competent courts. According to the ECtHR, freedom of expression, which is the content of Article 10(1) of the Convention, represents one of the fundamental pillars of a democratic society and one of the fundamental conditions for its development. Considering the importance of freedom

[62] „Article 10 – Freedom of expression

(1) Everyone has the right to freedom of expression. This right shall include freedom to hold opinions and to receive and impart information and ideas without interference by public authority and regardless of frontiers. This article shall not prevent States from requiring the licensing of broadcasting, television or cinema enterprises.

(2) The exercise of these freedoms, since it carries with it duties and responsibilities, may be subject to such formalities, conditions, restrictions or penalties as are prescribed by law and are necessary in a democratic society, in the interests of national security, territorial integrity or public safety, for the prevention of disorder or crime, for the protection of health or morals, for the protection of the reputation or rights of others, for preventing the disclosure of information received in confidence, or for maintaining the authority and impartiality of the judiciary."

of expression, the exceptions listed in Article 10(2) of the Convention, to which freedom of expression is subject, must be interpreted restrictively, and the necessity of each restriction must be convincingly demonstrated. Strict interpretation means that no criteria other than those listed in Article 10(2) of the Convention can be a basis for any restrictions on freedom of expression, and these criteria must be understood in such a way that the meaning of the terms used is not extended beyond their ordinary meaning.

According to Article 10(2) of the European Convention on Human Rights, interference with freedom of expression is only possible if three cumulative conditions are met.

- The interference (in the sense of "formality," "condition," "restriction," or "sanction") is provided by law;
- The interference pursues the protection of one or more interests or values listed in Article 10(2) of the Convention;
- The interference is necessary in a democratic society.

The term "provided by law" implies two conditions: sufficient accessibility and predictability of the law, enabling citizens to regulate their behaviour in light of the foreseeable consequences of a particular act.

The concept of "necessity in a democratic society" presupposes that the interference corresponds to an "urgent social need." Furthermore, it must be proportionate to the legitimate aim pursued, and the reasons invoked by the domestic authority to justify it must be "relevant and sufficient." According to ECtHR case law based on Article 10(2) of the Convention, freedom of expression applies not only to "information" and "ideas" that are favourably received or considered neutral but also to those that offend, shock, and disturb. These are the requirements of pluralism, tolerance, and open-mindedness without which a "democratic society" could not exist. Article 10 of the Convention protects not only the content of expressed

thoughts and information but also the form in which they are conveyed. Even opinions expressed in "strong" or exaggerated language are equally protected; the extent of protection depends on the context and purpose of the criticism. In matters of public debate and controversy or the public interest, during political discussions, in election campaigns, or where criticism is aimed at the government, "strong" words and harsh and relentless criticism can be expected and will be broadly tolerated by the ECtHR. From ECtHR decisions, it is evident that freedom of expression is among the most significant human rights, enjoying broad protection and being limited only in explicitly defined cases, which must be interpreted restrictively.

Following a short theoretical excursion, the practical issues of potential NFTs conflicts with the right to the protection of personhood in the V4 region can be demonstrated on the provisions of Art. 12 of the Slovak Civil Code. Documents of personal nature, portraits, pictures and image and sound records concerning an individual or expressions of his personal nature may be taken or used only with his or her consent.[63] However, portraits, pictures and images and sound records may be taken or used without the consent of the individual adequately also for purposes of science or art and for the purposes of the press, motion picture, radio and television news service. Such use must not be at variance with the lawful interests of the individual.[64] The appropriateness should be assessed in terms of the execution of the protected objects, particularly in terms of the purpose they serve, the scope, and the place where they are carried out. In this place, a large part of NFTs can fit within the definition of art and, therefore, the usage shall be considered as for artistic purposes.

Finally, the assessment of whether the use of a protected personal asset was in conflict with the legitimate interest of a particular person depends

[63]Art. 12 par. 1 of Act No. 40/1964 Coll. Civil Code

[64]Art. 12 par. 3 of Act No. 40/1964 Coll. Civil Code

on the circumstances of each case, including the position of the affected person, and it is always necessary to consider the fulfilment of the "appropriateness of the manner" in which the personal asset was purposefully used. In relation to so-called public figures, it applies that a person who enters the public scene must expect that as a publicly known person, they will be under public scrutiny, which takes an interest in their professional as well as private life and evaluates it, especially if it concerns a person who manages public affairs. In these cases, a more benevolent approach to assessing the limit of admissibility of publishing information of a private nature, or assessing the conduct of such a person, is necessary precisely because more demanding requirements are placed on them, and the public is entitled to obtain information about such a person in a significantly broader spectrum than would be the case for a person outside this category of representatives, in order to assess their professional and moral suitability to hold this function and properly handle public matters. Even in these cases, the existence of legitimate interests of such a person is not excluded. The legitimate interests of the affected person often have to yield to the preference for the promotion of the public interest in information, and the public interest in information must not only be justified but also current.

In this context, in the conflict between the right to information and its dissemination and the right to protection of personhood, i.e., two fundamental rights standing at the same constitutionally protected level, it is necessary to take into account the circumstances of the specific case, to ensure that one of these rights is not unreasonably given precedence over the other right.

REGULATED ACTIVITIES

Each of the V4 countries has its unique legal system, there are certain similarities in their regulatory frameworks that provide a basis for a comparative analysis of in the region. In the V4 region, the

regulatory frameworks governing business activities are typically a combination of national laws, EU regulations, and directives. These frameworks aim to ensure the protection of consumers, investors, intellectual property rights, data privacy, and financial stability.

The Slovak regulatory framework for business activities is, as mentioned above, primarily governed by the Commercial Code. Additionally, EU regulations and directives, including those related to consumer protection, financial services, and intellectual property, also have a significant influence on the legal landscape. The Czech Republic, similarly, has a comprehensive legal framework for regulating business activities. It is important to note that the V4 countries are also subject to EU regulations that apply uniformly across the European Union. These regulations cover various aspects of business activities, including consumer protection, financial services, data protection, and intellectual property rights. EU regulations provide a level of harmonization within the V4 region and ensure consistency with the broader European legal framework.

While the regulatory frameworks in the V4 countries share similarities, there may be variations in the specific laws, regulations, and guidelines pertaining to NFTs. This e-book will in the respective part explore these variations in detail in subsequent sections, focusing on the legal status of NFTs in V4 countries while providing a comparative analysis of their approaches to regulating NFT-related business activities.

DOES FINANCIAL MARKET REGULATION APPLY TO NFTS?

The regulation can generally be understood as an effort aimed at achieving goals that would not be attained without such regulatory intervention.[65] These regulatory objectives represent values whose risk of harm or endangerment is weighed against the limitations on activities and behaviour of subjects in the regulated area. In the case of the Slovak Republic, regulatory objectives are defined in Act No. 747/2004 Coll. on the supervision of the financial market (hereinafter referred to as the "Act on the supervision of the financial market"") as the objectives of financial market supervision, including the stability of the financial market, safe and sound functioning of the financial market, maintaining the credibility of the financial market, protection of financial consumers, protection of other clients in the financial market, and adherence to rules of economic competition.[66]

Various legal frameworks exhibit different approaches to the implementation of financial market regulation, with these regulatory approaches being mainly classified into principle-based regulation and rule-based regulation. In principle-based regulation, the regulator sets abstract goals, and these principles serve as more abstract behavioural norms and interpretive rules, while the means of achieving them are more discretionarily left to the regulated entities. However, in the case of the EU (and, therefore, all V4 countries), rule-based regulation is primarily applied, introducing precisely defined norms of behaviour that do not provide as much discretion in their implementation as regulatory principles do.[67] The main advantage of rule-based regulation is naturally its clarity, which allows for easier assessment of compliance or non-compliance with a specific rule.[68] On the other hand, rules cannot capture the 'spirit of the norm' as principles do, and entities regulated by rules may, without adhering to interpretive principles, slide into mindless literal compliance with the rules.[69] When assessing whether the legal regulation of the financial market also applies to NFTs and crypto-assets as such, this is where the first conceptual risk of financial market regulation in the EU arise. It is undeniable that the European legislator could not have had the conceptual differences of crypto-assets in mind when formulating the wording of valid rules regulating the area of the financial market, which results in the absence of effective interpretive principles and, in extreme cases, complete ineffectiveness of the application of relevant rules to such atypical and innovative financial products and services. This ineffectiveness can manifest itself on both sides of the scales of proportionality, where the significant endangerment of the pursued regulatory objectives may occur on one side, and disproportionately restrictive interventions in the activities and behaviour of regulated entities may occur on the other side.

INVESTMENT SERVICES AND ACTIVITIES

Activities related to crypto-assets can encompass a wide range of activities regulated by financial regulation. This set of activities may in-

[65]LODGE, M., WEGRICH, K. Managing Regulation. Regulatory Analysis, Politics and Policy. Palgrave Macmillan, 2012

[66]Article 1 par. 1 Act No. 747/2004 Coll. on financial market supervision

[67]ČUNDERLÍK, Ľ. et al. Právo finančného trhu. Bratislava: Wolters Kluwer, 2017, p. 28.

[68]SCHAUER, F. Playing by the Rules: A Philosophical Examination of Rule-Based Decision-Making in Law and in Life. Oxford: Claredon Press, 1991.

[69]BRAITHWAITE, J. Rules and Principles: A Theory of Legal Certainty [online]. [2021-07-14]. Available on the Internet **here**.

clude activities related to payment services, electronic money services, consumer credit, collective investment, investment services, and activities. In terms of NFTs, the likelihood of meeting the criteria for any regulated activity is significantly lower. Without the need for a lengthy legal analysis, it can be stated that the fulfilment of the criteria for investment services and activities is practically the only relevant consideration. The legal regulations at the EU level governing entities and regulating relationships arising in the capital market constitute a fairly extensive set, a significant part of which affects the possibilities of issuance, recording, transfer, and custody of financial market instruments. It defines and relies on the legislative concept of a financial instrument, thus establishing the boundaries of the relevant regulation.

A financial instrument is a legislative term referring to a specially regulated financial tool used by entities in the financial market as an investment instrument (subject of the investment) to allocate their available financial resources for the purpose of appreciation, and which is subject to trading on the capital market. The characteristic of financial instruments in trading on the capital and money market is that their movement reflects the movement of financial resources in the opposite direction. Financial instruments are abstract instruments embodying specific property rights, essentially derived from the contractual type of a purchase agreement, which involves the purchase of a specific tangible commitment of a debtor or other asset value by an investor.[70]

The set of financial instruments consists of a subset of securities and financial derivatives. The characteristic feature of securities is their material expression of rights and obligations associated with them, resulting in their treatment similar to physical objects and often being considered as

[70]BAKEŠ, M., KARFÍKOVÁ, M., KOTÁB, P., MARKOVÁ, H. et al. Finanční právo. 6. upravené vydání. Praha: C. H. Beck, 2012, p. 421.

things in a legal sense.[71] Unlike securities, financial derivatives are agreements between the buyer and seller concerning the transfer of financial risk derived from the future movement of the price of an underlying asset.[72] Financial derivatives can be divided into two groups. The first group consists of option contracts, which involve the unilateral right to buy (call) or sell (put). The second group includes fixed-term or unconditional contracts, which are forwards, futures, and swaps. Unlike option contracts, these contracts represent an obligation rather than just the unilateral right to deliver the underlying asset and make reciprocal payments.[73]

The MiFID II Directive defines a set of financial instruments, and this set, along with the definitions of individual types of financial instruments, is incorporated into the national legal frameworks of EU member states, including the V4 countries. This set consists of the following:

1. Transferable securities;
2. Money-market instruments;
3. Units in collective investment undertakings;
4. Options, futures, swaps, forward rate agreements and any other derivative contracts relating to securities, currencies, interest rates or yields, emission allowances or other derivatives instruments, financial indices or financial measures which may be settled physically or in cash;
5. Options, futures, swaps, forwards and any other derivative contracts relating to commodities that must be settled in cash or may be settled in cash at the option of one of the parties other than by reason of default or other termination event;

[71]SIDAK, M. et al. Finančné právo. Bratislava: C.H. Beck, 2014, p. 451.

[72]LAZOVÝ, J. Vývoj na trhoch s finančnými derivátmi. In: Biatec. 2012, n. 10, p. 17.

[73]MEDVEĎ, J. et al. Banky - teória a prax. Bratislava: Sprint dva, 2012, p. 430.

6. Options, futures, swaps, and any other derivative contract relating to commodities that can be physically settled provided that they are traded on a regulated market, a MTF, or an OTF, except for wholesale energy products traded on an OTF that must be physically settled;
7. Options, futures, swaps, forwards and any other derivative contracts relating to commodities, that can be physically settled not otherwise mentioned in point 6 of this Section and not being for commercial purposes, which have the characteristics of other derivative financial instruments;
8. Derivative instruments for the transfer of credit risk;
9. Financial contracts for differences;
10. Options, futures, swaps, forward rate agreements and any other derivative contracts relating to climatic variables, freight rates or inflation rates or other official economic statistics that must be settled in cash or may be settled in cash at the option of one of the parties other than by reason of default or other termination event, as well as any other derivative contracts relating to assets, rights, obligations, indices and measures not otherwise mentioned in this Section, which have the characteristics of other derivative financial instruments, having regard to whether, inter alia, they are traded on a regulated market, OTF, or an MTF;
11. Emission allowances consisting of any units recognised for compliance with the requirements of Directive 2003/87/EC (Emissions Trading Scheme)[74]

In its conceptual sense, NFTs do not inherently fulfil the definition of any type of financial instrument in any form. However, in certain specific cases, NFTs may be associated with rights identical to transfer-

[74]Section B of Annex I to MiFID II directive

able securities. MiFID II, in Article 4(44), defines transferable securities as follows: “classes of securities which are negotiable on the capital market, with the exception of instruments of payment, such as:

a. shares in companies and other securities equivalent to shares in companies, partnerships or other entities, and depositary receipts in respect of shares;
b. bonds or other forms of securitised debt, including depositary receipts in respect of such securities;
c. any other securities giving the right to acquire or sell any such transferable securities or giving rise to a cash settlement determined by reference to transferable securities, currencies, interest rates or yields, commodities or other indices or measures”

The definition of the term ‘security’ and its types is not harmonized at the European level, allowing member states, including the V4 countries, to interpret this concept in various ways. Three main concepts can be derived from the national regulations within the EU. In the first case, national regulations explicitly state that securities can also take the form of crypto assets. Such regulations, for example, in the case of the Federal Republic of Germany, effectively prevent assets that materially represent securities and associated activities and services from escaping the regulation of the capital market, thereby ensuring the fulfilment of regulatory objectives in this area. Although such regulation may appear timeless and in line with the planned amendment of Article 4(1)(15) of MiFID II, due to the requirement for securities to be held in book-entry form when traded on trading venues and the requirement for record-keeping in a central securities depository, it indirectly prevents any effective application of DLT in the issuance, recording, transfer, and custody of such securities.

The second case can be demonstrated in the Slovak regulation of se-

curities through the material interpretation of Section 2 of the Securities Act, which states that if a written record associated with money carries the same rights as certain types of securities, such a record must be exclusively executed in the form and format prescribed by law. Since the Securities Act does not designate a crypto asset as one of the forms of securities, it is not possible to validly issue, record, transfer, and store securities existing only in tokenized form. Unlike the German legal regulation, where it is possible to issue financial instruments in tokenized form even without economic substance, in the case of the Slovak Republic's legal framework, using the material interpretation of the legal definition of a security, securities in tokenized form cannot be issued at all. This situation, similar to that in the Federal Republic of Germany, ensures the fulfilment of regulatory objectives but significantly reduces the level of legal certainty due to the possibility of divergent interpretations.

The third case represents the formal interpretation of the definition of a security according to the Securities Act and the legal regulation of the Czech Republic. According to the formal interpretation of Section 2 of the Securities Act, a security exists only if there is a record of monetary value in the form and format prescribed by law. Under this interpretation, no crypto asset can be considered a security, even if the associated rights are identical to those associated with certain types of securities. However, it should not be assumed that under formal interpretation, all types of securities can be validly issued as material representations of crypto assets. Certain types of securities, such as shares, cannot be tokenized, as the rights to participate in the management, profit, and liquidation surplus of a joint-stock company are reserved for shares in the form prescribed by law. In Czech legal regulation, a security is exclusively considered a document, and when we speak of a registered security or an intangible asset, it means that the security is replaced by an entry in the registry prescribed by law. In the case of Czech legal regulation, an interpretation similar to the material interpretation of the Slovak definition of a security is not applicable. Therefore, according to the formal interpretation of the Slovak definition of a security and the Czech legal regulation, tokenized securities are not considered securities or financial instruments in a legal sense, and therefore, the legislation regulating the capital market does not apply to these assets, activities, or services associated with them. This situation, in the case of the Czech Republic, widely opens the doors to efficient applications of DLT; however, this cannot be considered a competitive advantage compared to traditional forms of investment or capital acquisition without further consideration. The absence of a legal framework for financial markets significantly reduces the level of investor protection, allows market abuse, and creates additional negative externalities, which fundamentally undermines investor trust and represents a significant systemic risk for the respective markets. Moreover, in the case of the formal interpretation of the Slovak definition of a security, it is necessary to consider the high level of legal uncertainty, which further decreases investor and other participants' potential trust and confidence.

In conclusion, it can be stated that within the legislative environment of the EU, it is not possible de lege lata to provide a universal answer to the question of whether a specific NFT can fulfill the definition of a security or financial instrument. The answer to this question depends on the assessment of the dynamically evolving legal regulations at a specific time and the specifications of the given NFT. In general, however, it can be noted that there is a very low probability that any NFT would meet the definition of a security. If an NFT is not classified as a security or any other financial instrument, the legislation governing the capital market does not apply to it. The only financial regulation that may apply exclusively to NFTs is the MiCA regulation.

MICA REGULATION

One of the challenges presented by the MiCA regulation is the difficulty

in distinguishing between regulated financial products and non-regulated ones. Given the wide-ranging language of MiCA and the industry's prior experiences with crypto-assets, it is anticipated that crypto-asset service providers will push the boundaries of the exemption provided under MiCA. It is crucial to consider the scope of MiCA's regulation in relation to NFTs and whether NFTs fall within its scope. NFTs, defined as unique digital assets that represent ownership or provide proof of authenticity for specific items such as artwork, content, collectables, or virtual real estate, warrant attention within the realm of financial services regulation.

NFTs offered at a fixed price, including digital art, collectables, in-game clothing, and cinema tickets, are not subject to MiCA. However, NFTs extend beyond art, gaming, and collectables, and play a significant role in financial services, necessitating regulatory attention. MiCA explicitly exempts unique and non-fungible crypto assets, including digital art, collectables, and crypto assets representing unique services or physical assets like product guarantees or real estate, from its regulation. These assets derive value from their distinct characteristics and lack of interchangeability with other assets. Consequently, unique NFTs fall outside the scope of MiCA's regulation. EU lawmakers have stressed that assigning a unique identifier alone to a crypto asset is insufficient to classify it as unique or non-fungible. Therefore, if crypto assets are issued as fractional representations of an NFT or if NFTs exist in large series or collections, they may be considered fungible and regulated under MiCA. This indicates that the exemption of unique and non-fungible crypto assets from MiCA's scope does not exempt them from potential classification as financial instruments as outlined above. MiCA's exemption solely pertains to its own scope and does not affect the application of other EU financial regulations. If NFTs meet the criteria of financial instruments under MiFID II, they will be subject to MiFID II and other relevant EU securities regulations. Similarly, if NFTs qualify as e-money or payment services under the E-Money Directive or Payment Services Directive, they will be subject to regulations specific to those areas.

As MiCA was adopted shortly before the publication of this e-book, it is not possible to assess any application practice regarding the implementation of the MiCA regulation on NFTs. Similarly, there is a lack of implementing legal provisions that would shed more light on the subject matter.

The evolving nature of legal regulations and the unique characteristics of NFTs pose challenges in their classification. It is unlikely that NFTs meet the criteria for securities, and if they do not fall into any regulated category, they are not subject to financial market regulations. However, the newly adopted MiCA regulation introduces a framework for the regulation of crypto-assets, in some cases including NFTs. The scope and applicability of MiCA to NFTs require careful examination, as it distinguishes between unique and fungible crypto assets. The exemption under MiCA for unique NFTs does not exempt them from potential classification as financial instruments under other EU regulations. The practical application and specific provisions of the MiCA regulation are yet to be determined, and further legal developments are needed to provide clarity in this area. The industry and regulatory authorities are still in the process of understanding and interpreting the regulatory framework. The wide-ranging language of MiCA and the innovative nature of NFTs create uncertainties and complexities in their intersection. Finally, as the landscape continues to evolve, it is important to closely monitor regulatory developments and seek legal advice to ensure compliance with the evolving regulatory requirements.

IS NFT A THING IN THE LEGAL SENSE?

When examining the legal nature of NFTs, one must remember that they are only one type of the broader category of crypto-assets. Therefore, before clarifying the meaning of the rights in rem qualification of NFTs, it is essential to analyse the aspects of rights in rem relating to crypto-assets in general. Crypto-assets are the subject of many professional publications, the vast majority of which, however, only deal with the public law regulation of the subject area. In contrast, private law issues are left aside. Therefore, to understand the legal nature of NFTs, it is necessary to analyse the civil law aspect of the crypto-assets, specifically NFTs and the aspects related to the law of things. As the law of things regulations are not fully harmonized within the EU, we will analyse Slovak and Polish legislation in the subject area, providing a good picture of the diversity of the classification of NFTs in relation to the law of things within the V4 countries.

The origins of the historical development of understanding things in the legal sense within the European Union legislative environment originate from Roman law. Although Roman legal theory did not elaborate on the definition of the thing and contemporary authors of professional literature do not reach a unified opinion in order to establish a definition of a thing, Gaius, whose idea was later adopted by Justinian, divided things into material things (res corporales - i.e. those that can be touched) and intangibles (res incorporales – i.e. those that cannot be touched). At the same time, the intangibles were also classified as obligations. Legal regulation introduced by the Allgemeines bürgerliches Gesetzbuch für die gesammten Deutschen Erbländer der Österreichischen Monarchie (hereinafter referred to as “ABGB”), was in accordance with the Romanic concept of things, and together with Hungarian customary law, influenced the development of legal theory in Slovakia to a large extent. According to the ABGB, a thing was understood as everything different from a person and serving the use of humans. In contrast, according to Gaius, things were divided into material and immaterial. Since crypto-assets are undoubtedly for human use, they can be classified as intangibles within the ABGB concept.

The opposite concept of understanding the thing in the legal sense within the region of the European Union is represented by the Bürgerliches Gesetzbuch (hereinafter referred to as “BGB”), which in addition to the legal order of the Slovak Republic, also significantly influenced the legislative environment of Russia federation, the Netherlands, or Poland and which does not consider anything that does not have a material nature to be a thing in the legal sense.

SLOVAK LEGISLATION

The Act No. 40/1964 Coll. Civil Code (hereinafter referred to as “Slovak Civil Code”), as a general and basic regulation of Slovak private law, regulates “property relationships of individuals and legal entities, property relationships between these persons and the state as well as relationships following from right to protection of persons unless these relationships are regulated by special acts” and “legal relationships following from results of intellectual creative activity.” The subjects to civil legal relationships can be things , flats and non-residential premises and, if their nature admits so, rights or other property values. Even without further examination, it is apparent that crypto-assets can only be classified as things, rights or other property values from the point of view of the secondary subject (also referred to as an object in legal theory) of civil legal relationships.

The absence of a legal definition of the term thing in the legislative environment of the Slovak Republic is replaced by a legal doctrine adher-

ing to the Civil Code of 1950, according to which things in the legal sense are “controllable material objects and natural forces that serve human needs”, and therefore a thing is exclusively material an object or a natural force under the simultaneous fulfilment of the condition of usefulness and controllability. The case law does not expand the doctrinal understanding of the matter. Instead, on the contrary, it draws restrictive conclusions about what is not a separate thing and a separate subject of legal relations, such as quarry, mining area, cave, pond, pond dam, road or ornamental rock garden. In the case of Polish legislation, NFTs are not considered things in the legal sense of the word. However, unlike the Slovak legislation, the Polish regulations explicitly state that things are exclusively understood as tangible objects. In countries (including the Slovak Republic) whose legal systems are inspired by the concept of understanding a thing in the legal sense according to the BGB, crypto-assets do not meet the legal definition of a thing because of the absence of their tangibility. Due to the connection of the concept of thing to individual provisions of laws of things, the fact, as mentioned above, has far-reaching consequences, e.g., the impossibility of being the subject of property rights.

The term thing is not and cannot be defined enough to be stabilized throughout human history. On the contrary, the concept of things is subject to changes at a pace proportional to the development of people’s needs, the advancement of human knowledge and the control of the external world. In the latest European civil codes, an inclination towards the ABGB concepts can be observed precisely because of social and market developments. The example can be found in the new Czech Civil Code, which negatively defines a thing as everything that is different from a person and serves the needs of people and subsequently divides things into the tangible, which are “a controllable part of the external world that has the nature of an independent object” and intangible, which are “rights whose nature admits it, and other things without material substance.” The long-awaited recodification of private law in the Slovak Republic might be

carried out in a similar spirit, which should result in a positive impact on the practical aspects of the application of legal provisions on real rights, obligations and the determination of the range of legal means of protection against unauthorized interference with rights related to crypto-assets.

Since crypto-assets in general (except for those crypto-assets that meet the definition of financial instruments) do not have the nature of a thing, money, claim, or currency, they can be subordinated as the subject of civil law exclusively under the regime of “other property values.” The practical effect of such a qualification can be the impossibility of concluding those types of contracts, which object shall be a thing or a payment in money, failure to fulfil the merits of the criminal offence, or even the fact that some otherwise regulated activities on the financial market performed by the exchange of crypto-assets might not be considered as regulated activities.

NFTS AND INTELECTUAL PROPERTY LAW?

The intersection of the issues of NFT creation and sale and intellectual property rights, specifically copyright, determines whether an NFT or the underlying work within an NFT can be defined as a work under copyright law.

According to Slovak law, the "subject of copyright is a work in the area of literature, arts or science which is a unique result of the creative and artistic activity of the author, perceivable by senses, irrespective of its shape, content, quality, purpose, form of expression or level of completion."[75] The Slovak law classifies the work as "a literary work, a theatrical work, musical work, audiovisual work, work of fine art, architectural work, work of applied arts, cartographic work) or other types of artistic work or scientific work, provided that it meets requirements under paragraph 1."[76] The NFTs or their underlying content can fulfil the definitions of artistic work, specifically photographic work and work of applied arts. Artistic work is a painting, a drawing, a collage, a tapestry, an engraving, a lithography or other graphic work, a sculpture, pottery, a jewel or other work of fine art and a photographic work.[77] Photographic work means a fixation of the picture through the photographic technical device, provided that it is a result of the creative and artistic activity of the author.[78] Work of applied arts is an artistic creation that utilising functions or a work included into utility, regardless of whether it was handmade, industrial-made or created by another technological process.[79]

The subject of copyright under Czech law is similarly "a literary work or other work of art or a scientific work which are the unique outcome of the creative activity of the author and are expressed in any objectively perceivable manner including electronic form, permanent or temporary, irrespective of their scope, purpose or significance. A work shall be namely a literary work expressed by speech or in writing, a musical work, a dramatic work or dramatico-musical work, a choreographic work and pantomimic work, a photographic work and work produced by a process similar to photography, an audiovisual work like a cinematographic work, a work of fine arts like a painting, graphic or sculptural work, an architectonic work including a town-planning work, a work of applied art, and a cartographic work."[80] Also a work which is the outcome of the creative adaptation of another work, including its translation into another language, shall also be the subject of copyright. This shall not prejudice the rights of the author of the adapted or translated work.[81] According to the abovementioned, the NFT itself, the underlying work or both shall be considered work under the copyright legislation within the V4 countries.

When examining the issue of NFTs from the perspective of intellectual property rights, it is essential to consider three potentially involved parties: the owner of the NFT, the owner of the underlying work within the NFT, and the author of the underlying work within the NFT. In practice, the owner of the NFT is not always authorized to use the underlying work in any way. Therefore, the owner of the NFT cannot prohibit the creation of

[75]Art. 3 par. 1 Act No. 185/2015 Copyright Act

[76]Art. 3 par. 2 Act No. 185/2015 Copyright Act

[77]Art. 3 par. 4 Act No. 185/2015 Copyright Act

[78]Art. 3 par. 5 Act No. 185/2015 Copyright Act

[79]Art. 3 par. 1 Act No. 185/2015 Copyright Act

[80]Art. 3 par. 7 Act No. 185/2015 Copyright Act

[81]Art. 2 par. 1 Act No. 121/2000 Copyright Act

copies of the underlying work or the NFT itself, nor can they restrict their other uses. Encoding information about the owner of the NFT does not imply that they are also the rightful subject of copyright to the underlying work. These are two completely distinct entities. The author of the original work remains the holder of intellectual property rights to the underlying work. Therefore, if there is no legal relationship to the underlying work, the owner of the NFT can only be considered the owner of the asset value representing the work. The transfer of rights to an NFT to another person must therefore be regulated through a separate contract in which the parties also define the conditions of the transfer, including licensing rights, the possibility of commercial use of the underlying work, and so on. These contracts are usually intermediated by selling/trading platforms in electronic forms and are signed by an electronic signature. For example, the abovementioned can be derived from the Article 43 of the Polish Act of 4th of February 1994 on Copyright and Related Rights, which stipulates: “An agreement on the transfer of copyrights requires written form under pain of nullity.” Hence, a person trading with NFTs should be aware that it cannot honestly promise a transfer of copyrights to a work linked with a given NFT as a transfer of copyrights must be done in writing. Also granting an exclusive licence must be done in writing. As a consequence, a person trading NFTs may grant only non-exclusive licences to a work linked with a given NFT or included in the NFT. Furthermore, a creator of the NFT that is linked with a protected work needs the permission of the entitled entity, in most cases of the author of a given work (inter alia permission to reproduction of a work on servers). The same applies to NFTs where a work is included in the NFT. However, there are works created by AI that are linked with NFTs – at present, unlike in the Czech and Slovak Republic, they are not protected by intellectual property law in Poland. Therefore, it is necessary to note that the copyrights to an underlying work cannot be obtained just by obtaining an NFT. As regards a transfer of copyrights as well as granting an exclusive licence, Polish law requires a written form and an indication of the fields of exploitation of a given work.

In conclusion, this part of the e-book has outlined the intricate relationship between NFTs and copyrights in the V4 region but did not directly address the complex issues raised by NFTs. It shall help the potential creators and the general public to face the challenge of adapting copyright regulations to effectively address the new digital landscape and provide a foundation for further study and analysis in this rapidly evolving field. Striking a balance between incentivizing creativity and protecting the rights of creators will be essential in fostering a thriving digital art ecosystem. It is evident that NFTs have the potential to revolutionize the way we conceive and manage ownership and value in the digital age. However, their rise also necessitates robust legal mechanisms to safeguard the rights and interests of all parties involved.

AA
NFT