

# Digital Assets in the Slovak Republic

**Branislav Parajka<sup>1</sup>**

<sup>1</sup> University of Economics in Bratislava  
Faculty of Economic Informatics, Department of Accounting and Auditing  
Dolnozemská cesta 1/b, 852 35 Bratislava, Slovakia  
E-mail: [branislav.parajka@euba.sk](mailto:branislav.parajka@euba.sk)

**Abstract:** *Digitalization is a part of our lives past decades. New types of assets arise from this process – digital assets. Currently there is no generally accepted definition of digital assets, also no definitive list of digital assets exist, but crypto-assets as a part of digital assets are widely known. According to author’s findings, new objects are: Crypto Assets, Virtual Game Property, Domain Names, Big Data, Social Media Accounts. Accounting regulation in the Slovak Republic is known by its vast detailed prescriptions, but it seems that it does not keep track with new trends.*

**Keywords:** *assets, digital assets, crypto-assets, cryptocurrency*

*JEL codes: G10, M40, M41, M48*

## 1 Introduction

The process of digitalization of the economy has led to the creation of new objects of wealth circulation, which have received the common name - digital assets. At the same time, there is no unified approach to the understanding of digital assets in the current literature (Kharitonova, 2021). Digital assets may represent a variety of underlying physical assets or no real physical assets at all. Bitcoin, for example, is a mere store of value which is not associated with any real world physical asset. Other digital assets may be a representation of an underlying physical asset, such as a piece of art etc. (Kaal & Howe, 2021)

Crypto-assets are considered to be a subpart of digital assets. According to European Securities and Markets Authority - ESMA (2019) crypto-assets are a type of private asset that depends primarily on cryptography and Distributed Ledger Technology, while European Financial Reporting Advisory Group – EFRAG (2020) defines crypto-asset as a digital representation value or contractual rights created, transferred and stored on some type of distributed ledger technology network and authenticated through cryptography. Both definitions have some common grounds: use of digital technology, cryptography and DLT technology. According to many authors (Blahušíková, 2022; Kubaščíková, et al., 2019; Tumpach, et al., 2020) cryptocurrencies are the most well-known subgroup of the crypto assets. Currently, Slovak accounting legislation does not recognize neither terms - digital asset nor crypto asset.

Many authors (Kharitonova, 2021; Yu, 2019) refer to the definition of digital assets set by California Revised Uniform Fiduciary Access to Digital Assets Act (RUFADAA) which is a part of California Probate Code, Sections 870 – 884. In California RUFADAA is used to govern the disclosure of digital assets when a California resident dies. Digital assets include not just emails and social media accounts but may also include online files and assets, digital currencies, domain names, and blogs. According to Section 870 (h) "Digital asset" means an electronic record in which an individual has a right or interest. The term "digital asset" does not include an underlying asset or liability, unless the asset or liability is itself an electronic record; 870 (r) "Record" means information that is inscribed on a tangible medium or that is stored in an electronic or other medium and is retrievable in a perceivable form. However, not all "records" could be recognized as assets in accounting point of view, which will be discussed in this article.

According to the Slovak Act on Accounting, the current definition of Assets is: Assets are economic resources which arise from past events and which are expected to result in an increase in the future economic benefits; total on- and off-balance sheet assets comprise assets and off-balance sheet assets. According to Šlosárová (2016) an asset must

meet following criteria to be presented in the financial statements: (a) result from past events, (b) high-certain increase the accounting entity's future economic benefits, (c) reliably valued according to the Act on Accounting. For the purpose of this article, terms cryptocurrency and virtual currency are considered as synonyms.

## **2 Methodology and Data**

The scope of this article is to identify current state of recognition of digital assets in the Slovak republic by analyzing the literature, current legal system and to propose a new accounting view for digital assets. Previously published studies by Tumpach, et al. (2013), Tumpach, et al. (2014), Tumpach & Baštinová (2014) provide evidence that legal regulations regarding accounting and financial reporting has been prescribed in a very detailed way for both, keeping accounts and for financial reporting. However, legislators did not react on new type of assets arise from Bitcoin technology introduced in 2008 by its author(s) under the identity of Satoshi Nakamoto. According to Blahušiaková (2020) the Slovak Republic introduced legislation regulating the taxation and accounting for cryptocurrencies in 2018 as one of the first countries. As mentioned before, cryptocurrencies are only a subgroup of crypto-assets (which are a part of digital assets), so some legal guidance only for small part of digital assets exist today. We must emphasize that Slovak legislation did not provide any legal definition of cryptocurrency until 2020 although there was accounting and tax regulation of transactions made in cryptocurrencies since 2018.

Referring to asset as electronic or digital are not always equal, but there is no common practice established yet. In this paper we consider them synonyms. There are opinions considering digital assets as a financial asset, a financial instrument, cash, cash equivalents, inventories or intangible asset. According to Slovak accounting legislation: (a) cryptocurrencies are recognized as short-term financial assets; (b) financial instrument shall mean a legal relationship, under which a financial asset accrues to one party, and a financial liability or a capital instrument accrues to another party; (c) long-term intangible assets mean those assets, the value of which is higher than 2 400 EUR and the useful life of which is longer than one year.

## **3 Results and Discussion**

Based on the definitions above and the market observations, author was were able to identify following "new objects" to be considered as digital assets:

- (a) Crypto-Assets,
- (b) Virtual Game Property,
- (c) Domain names,
- (d) Big Data,
- (e) Social Media Accounts.

The list provided above is not definitive. Further research may bring up new items to digital assets list. Further elaboration is needed, because fields of intellectual properties were not included in this study. Also transfer of some items above could be problematic due to personal data and GDPR protection.

While there is no universally accepted definition of Crypto-Assets, most authors and authorities accept common grounds: Crypto-Assets are made by use of cryptography and distributed ledger technology. According to Deloitte (2020) there are 5 categories of what we recognize as Crypto-Assets: (1) Security tokens - these are tokens of special characteristics that are similar to traditional instruments like shares, debentures or units in a collective investment scheme. Example: Science Blockchain token. (2) Cryptocurrencies (or exchange tokens) - are the most common type of digital asset, and they use cryptography for security, designed to work as a medium of exchange. Example: Bitcoin. (3) Stablecoins - are digital assets that attempt to stabilize its volatility by typically

pegging themselves to a stable asset such as the US Dollar or gold. They are slowly gaining traction with investors who favour security over high returns. Example: Gemini dollar. (4) Utility tokens – are digital tokens seek to provide value to investors by giving them access to a future product or service. For example, a startup may develop a digital product/service and issue utility tokens to investors. Investors may then use those tokens at some future time, to obtain access to the issuers products/service. Example: Filecoin. (5) E-Money tokens - are tokens that are designed to function as a form of electronic money that represent a claim on the issuer, are issued on receipt of funds for the purpose of making payment transactions, and are accepted by a person other than the issuer. Example: Libra.

Current Slovak legislation only deals with cryptocurrencies, however the definition of cryptocurrency is not provided by accounting legislation, but by Act 297/2008 Coll. on protection against the legalization of income from criminal activity and on protection against the financing of terrorism: virtual currency is a digital value carrier that is not issued or guaranteed by a central bank or public authority, is not necessarily tied to legal tender, and does not have the legal status of currency or money, but is accepted by certain natural persons or legal entities as an instrument of exchange that can be electronically transferred, stored or traded. Based on that definition following of previously mentioned categories of Crypto-Assets could be accounted as cryptocurrency in the Slovak republic: (2) Cryptocurrencies, (3) Stablecoins. According the Act on Accounting cryptocurrency can be recognized only if: (a) purchased, (b) acquired by mining on the day of exchange for another asset or service, or (c) exchanged for another cryptocurrency. If anyone of characteristics mentioned above is met, the cryptocurrency is accounted as short-term financial asset. If any of characteristics of cryptocurrency are not met – for example holding of mined cryptocurrency which has not been used in any exchange transaction, such cryptocurrency is accounted on off-balance sheet accounts. The remaining categories: (1) security tokens, (4) utility tokens may be considered as financial instruments, if all aspects of definition applicable for assets are met. (5) E-Money tokens if meeting definition for electronic money by Slovak legislation could be recognized as receivables, but if not recognized as electronic money it could be accounted also as financial instruments.

Virtual Game Property are one of the “new” digital items, which could be traded for significant sum of money. According to ESTNN web site, the most expensive virtual item ever to be sold in a video game had a price tag 6 million USD. Virtual Game Property are currently not recognized by Slovak legislation, however, general definition of assets may be applied here as well. Recognition of this type of digital asset is mainly affected by ability to be valued according the Act on Accounting – if this virtual item was acquired by business transaction it will be considered as a part of intangible assets. If virtual item was acquired during the game (as a trophy or so), item could be accounted only on off-balance sheet accounts.

Domain names are here since the beginning of the Internet. There is no special guidance how to account for domain names in Slovak accounting legislation, so only general definition of assets apply – if domain name was acquired by business transaction with value determined according the Act on Accounting this domain name will be reported as a part of intangible assets. However, if an entity owns a domain name or register a new domain name with the provider for a fee (usually annual fees apply) this transaction is considered to be a service, so should be accounted as expenses or if entities business is based on selling registered domain names it could be recognize as an inventory as well.

Big Data – the definition of big data is data that contains greater variety, arriving in increasing volumes and with more velocity. According to some authors personal data are often a part of big data. If big data is acquired by business transaction it could be recognized as intangible assets. According to Birch et al. (2021) there is currently no standard how to evaluate big data in accounting point of view, only change of market value of Big Tech firms could provide some information on its value. Big data is not covered in Slovak legislation, however this could be a part GDPR practices.

Social Media Accounts emerged during author’s research. In general, social media accounts are considered a part of property of social media platforms provider. However,

social media with significant number of followers could provide business opportunities to promote products, services or even to influence public opinions on different topics. According to Hopper HQ analytics tool, a single post on Instagram social network could cost over 2 million USD (Hopper HQ, 2022). Here also general definition of assets apply – if social media account was acquired as a business transaction it should be recognized as a part of intangible assets. Internally generated (newly registered) social media accounts are not recognized by accounting legislation. More research needs to be done on this topic, since restrictions on transfer of social media account to another party could be in place, but significant potential for profit was identified.

## Conclusions

This article is an outline of new type of assets - digital assets. New objects of trade were identified: Crypto-Assets, Virtual Game Property, Domain names, Big Data, Social Media Accounts. While most of identified types of crypto-assets have some legislative regulation, other “new objects” has no regulation at all, so only general accounting principles and basic definition of assets apply. Some of identified items needs further research, because it might be a part of intellectual property or personal data covered under GDPR. Valuation of new objects, except for crypto-currencies, is more challenging. Basic guidelines for valuation could be found by International Valuation Standards, which could provide guidelines for business transaction, but these standards were not discussed in this article. It might seem strange because, according to many researchers, some areas of accounting in the Slovak republic are regulated in vast detail, but the newly emerging types of assets are not recognized at all.

## Acknowledgments

This article is an output of the project of the Scientific Grant Agency of the Ministry of Culture of the Slovak Republic and Slovak Academy of Sciences (VEGA) no. 1/0517/20 (2020-2022) “Virtual Cryptochains as a Relevant Tool to Eliminate Economic Crime.”

## References

- Adrian, T., & Mancini-Griffoli, T. (2021). The Rise of Digital Money. *Annual Review of Financial Economics*, 13(1), 57-77. <https://doi.org/10.1146/annurev-financial-101620-063859>
- Blahušíaková, M. (2022). Accounting for Holdings of Cryptocurrencies in the Slovak Republic: Comparative Analysis. *Contemporary Economics*, 16(1), 16-31.
- Birch, K., Cochrane, D. T., & Ward, C. (2021). Data as asset? The measurement, governance, and valuation of digital personal data by Big Tech. *Big Data & Society*, 8(1). <https://doi.org/10.1177/20539517211017308>
- Deloitte (2020). *A Market Overview of Custody for Digital Assets Digital Custodian Whitepaper*. Retrieved from: <https://www2.deloitte.com/sa/en/pages/finance/solutions/custody-digital-assets.html>
- EFRAG (2020). Discussion Paper. Accounting for crypto-assets (liabilities): Holder and issuer perspective, July 2020.
- ESMA (2019). Advice. Initial Coin Offerings and Crypto-Assets. ESMA50-157-1391
- Hopper HQ (2022). 2022 Instagram Rich List. Retrieved from: <https://www.hopperhq.com/instagram-rich-list/>
- Kaal, W. A., & Howe, H. (2021). Custody of Digital Assets. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3936876>
- Kharitonova, J. S. (2021). Digital Assets and Digital Inheritance. *Law & Digital Technologies*, 1(1), 19-26. DOI: 10.18254/S123456780015732-6
- Kubaščíková, Z., Tumpach, M., Juhászová, Z., & Almanova, G. (2019). Blockchain Technology and Verification of Information from Financial Statements. IFRS: Global Rules & Local Use - Beyond the Numbers: 7th International Scientific Conference, 411-416.
- Nakamoto, S. (2008). *Bitcoin: A peer-to-peer electronic cash system*. Retrieved from [www.bitcoin.org](http://www.bitcoin.org)

- Šlosárová, A. (2016). Initial measurement et fair value. Účetnictví a auditing v procesu světové harmonizace: sborník z [16.] mezinárodní vědecké konference: Vranov nad Dyjí, Česko, 13. - 15. září 2016, 182-188
- Tumpach, M., & Baštincová, A. (2014). Cost and Benefit of Accounting Information in Slovakia: Do We Need to Redefine Relevance?. *European Financial Systems 2014: proceedings of the 11th International Scientific Conference: June 12-13, 2014 Lednice, Czech Republic*, 655-676.
- Tumpach, M., Juhászová, Z., & Meluchová, J. (2013). Is there any relevance of business-related financial reporting in Slovakia. *Financial management of firms and financial institutions: proceedings: 9th international scientific conference: 9th - 10th september 2013, [Ostrava - Mariánské hory, Czech Republic]*, 987-994.
- Tumpach, M., Manová, E., & Meluchová, J. (2014). Relevantnosť národného podnikového finančného výkazníctva v Slovenskej republike z pohľadu veriteľov ako nepriviligovaných používateľov. *Ekonomický časopis: časopis pre ekonomickú teóriu, hospodársku politiku, spoločensko-ekonomické prognózovanie = journal for economic theory, economic policy, social and economic forecasting*, 62(5), 495-507.
- Tumpach, M., Surovičová, A., Juhászová, Z., Marci, A., & Kubaščíková, Z. (2020). Prediction of the Bankruptcy of Slovak Companies Using Neural Networks with SMOTE. *Ekonomický časopis: časopis pre ekonomickú teóriu, hospodársku politiku, spoločensko-ekonomické prognózovanie = journal for economic theory, economic policy, social and economic forecasting*, 68(10), 1021-1039.
- Yu, M.T. (2019) *Towards a New California Revised Uniform Fiduciary Access to Digital Assets Act*, 39 Loy. L.A. Ent. L. Rev. 115 (2019).