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Selected Conflict-of-Law Issues Related to Digital Currency

Abstract

This paper discusses the problem of Central Bank Digital Currency (CBDC) in relation to conflict-of-law legislation. It aims to examine the suitability of currently applicable private international law provisions as an instrument for resolving conflict-of-law disputes related to monetary (currency) transactions under civil law with a foreign element. To achieve this goal, it analyses the definition of money and its interpretations in private law, followed by an overview of possible CBDC models. The findings facilitate the understanding of digital currency in private international law and examine the criteria for determining the jurisdiction of a specific legal order. Safe and efficient international transactions with CBDC are conditioned and guaranteed by legal certainty in cross-border relations. The future shape of the regulatory framework depends on the selected organizational and legal model for the issuance and use of CBDC.

KEYWORDS: CBDC, conflict of laws, law of currency

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1 Introduction

This article aims to provide an overview of conflict-of-law issues regarding monetary transactions in international trade, with emphasis on central bank digital currency (CBDC) in private international law. The leading hypothesis of this study presumes that any contemplated juridical model of CBDC will require appropriate conflict-of-law regulations to be laid

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down in order to determine jurisdiction in legal matters related to international cashflows. Few substantive provisions exist to directly regulate international cashflows[1]. Generally, there is indeed a comparative scarcity of private international legislation to determine the law applicable to monetary (currency) transactions even though these have been studied by scholars of private law and conflict of laws alike[2]. Three legal regimes have repeatedly been identified as applicable to international monetary transactions, namely: *lex causae* (contract law), *lex monetae* (law of the issuing country) and *lex loci solutionis* (state law at the place of performance)[3]. The advances in information technology used in financial trading and the emergence of virtual currencies are transforming our understanding of the currency of the future and increasing its potential influence on the stability of monetary systems[4]. Therefore, it is essential to assess whether the existing private international law framework provides legal certainty for cross-border legal business based on a distributed ledger and involving digital currency. The legal implications of distributed ledger technology, namely blockchain and crypto-assets, have been extensively examined in legal scholarship[5], including on private international law[6], and will not be discussed in further detail in this study. The literature has also addressed theoretical and legal concerns surrounding digital currencies, but few contributions have focused specifically on conflict-of-law matters related to CBDC. The importance of this issue stems from the proliferation of theoretical and practical frameworks for CBDC[7], with the consequent need for bridging regulatory gaps at the EU level[8]. The digital euro

1 https://uncitral.un.org/en/texts/payments

2 See Grzegorz Żmij, *Prawo waluty* (Kraków: Zakamycze 2003).

3 Ibidem, 67.

4 See Paweł Marszałek, „Kryptowaluty – pojęcie, cechy, kontrowersje" *Studia BAS*, No. 1(2019): 105-125.

5 Dariusz Szostek, *Blockchain i prawo* (Warszawa: C.H. Beck, 2018).

6 Marek Świerczyński, *Przełomowe technologie informatyczne w prawie prywatnym międzynarodowym* (Warszawa: C.H. Beck, 2024); Matthias Lehmann, „Digital Assets in the Conflict Of Laws: A Comparative Search For The 'Ideal Rule'" *Singapore Singapore Journal of Legal Studies* (forthcomming) http://dx.doi.org/10.2139/ssrn.4862792.

7 Central bank digital currencies: foundational principles and core features. Joint report by The Bank of Canada, European Central Bank, Bank of Japan, Sveriges Riksbank, Swiss National Bank, Bank of England, Board of Governors of the Federal Reserve and Bank for International Settlements, 9.10.2020.

8 Proposal for a Regulation of the European Parliament and of the Council on the establishment of the Digital Euro 28.6.2023 COM(2023) 369 final, *Report on a digital euro*. European Central Bank, 10.2020.

project aims to create legal tender integrating cash and bank money via distributed ledger technology. A further benefit of digital currency is its capacity to make international monetary transactions more efficient[9]. The relevance of the matter is highlighted by the Hague Conference on Private International Law's analytical examination of the conflict-of-law aspects relating to CBDC[10].

To achieve the stated study objective and verify the proposed hypothesis, the dogmatic-legal approach has been used to analyze the relevant principles of private international law and associated jurisprudential opinion. The main analytical thrust has been directed towards an investigation of two key concerns about the application of private international laws: the problem of classification and the identification of connecting criteria with a specific legal order. Remarks on substantive law will precede the analysis of conflicts of law. The analytical approach in this context involves scrutinizing the elements of legal relations that affect the selection of criteria for determining the appropriate jurisdiction over CBDC-involving transactions. Consequently, this paper leaves out technical concerns, such as IT challenges associated with the operation of virtual currency in its various forms.

A comparative analysis of national conflict-of-law legislation concerning virtual currencies and other cryptocurrencies reveals a lack of consistency across legal solutions in that domain. While certain governments have implemented conflict-of-law legislation, others have delegated the resolution of conflict-of-law matters to case law[11]. Equally noteworthy is the adoption in May 2023 of UNIDROIT Principles on Digital Assets and Private Law. Nevertheless, it is difficult to find conflict-of-law legislation regarding CBDC, even though legal certainty is essential for the efficacy of international commerce.

9 Ross P. Buckley, Mia Trzecinski, „Central Bank Digital Currencies and the global financial system: the dollar dethroned?" *Capital Markets Law Journal*, No. 2 (2023): 152.

10 *Exploratory Work: Private International Law Aspects of Central Bank Digital Currencies (CBDCs)*, March 2024. https://www.hcch.net/de/projects/legislative-projects/cbdcs

11 See Lehmann, *Digital assets*, 3 et seq.

2 Research and results

The issue of money in private international law is intrinsically linked to the evolution of international business contacts with a foreign element. This is particularly relevant to contractual obligations involving foreign citizens, overseas companies or legal entities headquartered in another jurisdiction, when the consideration is denominated in a foreign currency. Therefore, monetary consideration does not have an exclusively national character, for it is not specifically associated with a single nation[12].

3 Classification of digital currency in private international law

The classification of digital currency under private international law hinges on the question of whether a given factual situation falls within, or can be subsumed to, a specific conflict-of-law rule. Conflict-of-law rules indicating the applicable law in monetary transactions are relatively scarce. The current Polish Private International Law Act of February 4, 2011 lacks any specific provisions in that area. However, there are countries that have regulated the conflict-of-law problem in monetary matters, including Switzerland[13] and Romania[14]. Rather than referring to specific conflict-of-law rules governing jurisdiction in monetary matters, the following reflections will present various general approaches to money under private law in order to flesh out research hypothesis presented in this paper.

Money is a highly complex issue within the conflict-of-law context. This challenge arises from the difficulty of providing an unequivocal definition of money under substantive law and the multiplicity of its interpretations. The matter becomes somewhat less vague, as far as conflicts of law

12 See William Blair, „Interference of Public Law in the Performance of International Monetary Obligations", [in:] *International Monetary Law, Issues for the New* Millennium, ed. Mario Giovanoli (Oxford: Oxford University Press 2000), 395. https://doi.org/10.1093/oso/9780198299233.003.0021.

13 See Article 147 of the Federal Act on Private International Law (IPRG) of 18 December 1987.

14 See Article 2.646 Law no. 287/2009 on the Civil Code.

are concerned, if we assume money to be the object of monetary performance[15]. Currency, on the other hand, is a concept stemming from the public law of the issuing country[16]. In the reality of present-day international trade, monetary transactions do not use banknotes or coins, but other instruments serving purposes similar to money. In the context of private international law, money must be appreciated for its diverse roles as a monetary unit and as a unit of account enabling value preservation (storage)[17]. The functional criterion distinguishes between money in the strict (concrete) sense[18] and money in the broad (abstract) sense.

Money in the strict sense always refers to a legally recognised means of exchange through which obligations are fulfilled. Its legal recognition arises from its acceptance by the state as legal tender for the settlement of monetary obligations. Creditors have the right to ask for payment of the amount equivalent to their claim and in doing so must accept legal tender. Money serves as a medium of exchange and a method of settlement, embodied through monetary tokens issued by the central bank, such as coins and banknotes.

Under the substantive provisions of Polish law, monetary units appear on monetary tokens (banknotes, coins). A monetary token is undoubtedly an object, but of a unique kind (*sui generis*), as is universally acknowledged in jurisprudence. In that sense, a financial obligation is performed through the transfer of ownership of a quantity of monetary tokens representing a specific quantity of monetary units.

Money in the broad sense encompasses more than just coins and banknotes. It usually takes the form of monetary units recorded in the holder's bank account (bank money, deposit money). The account holder has a claim against the account-holding bank for the reimbursement of a certain amount. What is relevant from a conflict-of-law perspective is that account entries represent obligations. Bank money is not legal tender; yet, it is tightly linked to cash money, since settlement of a claim requires the transfer of a certain quantity of monetary tokens, which serve as a medium of exchange. When cash is converted into bank money, no new

15 See Grzegorz Żmij in: *System prawa prywatnego v. 20B, Private International* Law, ed. Maksymilian Pazdan (Warszawa: C.H. Beck, 2015), nb. 793.

16 See Żmij, *Prawo waluty*, 71.

17 See Caroline Kleiner, „Money in Private International Law: What are the Problems? What are the solutions?" *Yearbook of Private International Law*, Vol. XI (2009), 569.

18 Aurelia Philine Birne, *Das Allgemeine Privatrecht der Blockchain-Token Lex lata et ferenda* (Tübingen: Mohr Siebeck, 2023), 176.

money is created, it only changes its form. Money in the broad sense can be recognised as such when it is universally accepted as a medium of exchange, possessing a certain value, and its role is enshrined in the law, with no need for it to be specifically designated as legal tender or for the state to confer upon it the power to settle financial obligations[19]. Under the law of obligations, bank money is equated with money in the strict sense[20]. Its significance lies in its role as a unit of value, a means of exchange of goods and services, and a store of value (hoarding function). The broad view, embracing the aforementioned functions, permits other instruments of exchange to be classified as money. These instruments fall under the umbrella term of private money. Virtual currencies are a kind of private money, serving as a medium of exchange and therefore amenable to classification as money in the broad sense[21]. However, virtual currencies do not constitute money in the strict sense, since they lack the attributes of legal tender. This has been confirmed in Polish case law, with the Polish Supreme Administrative Court declaring that the National Bank of Poland has the sole authority to issue currency in conformity with the Constitution of the Republic of Poland. The currency of Poland consists of banknotes and coins denominated in zlotys and groszes[22].

This study does not offer a comprehensive examination of virtual currencies; therefore, the discussion is confined to matters pertinent to the conflict-of-law concerns surrounding CBDC. Virtual money is fundamentally based on encryption and distributed ledger technology, which has been extensively used as a digital system for payment and value transfer, exemplified by the virtual currency unit known as bitcoin[23].

Distributed ledger technology also enables virtual currencies to be traded and linked to a private key stored on a physical medium or in a hosting account[24]. Private money having the form of virtual currencies is directly linked to the concept of tokenization. According to Marek Świerczyński tokenization is a method designed to digitally map real-world assets onto

19 Ibidem, 176.

20 See Piotr Machnikowski in: *Kodeks cywilny. Komentarz*, ed. 11th, ed. Edward Gniewek, Piotr Machnikowski (Warszawa: C.H. Beck 2023), art. 358, nb. 3.

21 Marcin Michna, *Bitcoin jako przedmiot stosunków cywilnoprawnych* (Warszawa: C.H. Beck 2018), 30.

22 Ruling 6 March 2018 of Polish Supreme Administrative Court (NSA), II FSK 488/16.

23 See Świerczynski, *Przełomowe*, 159 § 4.I.

24 See Michna, *Bitcoin*, 50.

the blockchain[25]. Mapping creates cryptocurrency, which – according to the legal definition in Article 3(1)(5) of the MiCA[26] – digitally represents value or a right that can be transferred and stored in electronic form using distributed ledger or similar technology. A token may be allocated to a specific user as a blockchain entry and then transferred to another via entry update. According to private international law, a token does not represent an object of ownership rights[27]. Privately issued tokens, while serving purposes typical of money, may only be classified as money in the broad sense. There is also a body of jurisprudential opinion[28] that the normative nature of tokens with payment functions may enable them to be classified as a universal medium of exchange in the future, independent of cash or bank money. Nonetheless, it seems that such a form of payment will not become fully accepted or fungible until its official recognition as legal tender. Notably, Swiss conflict-of-law legislation does not acknowledge virtual currencies or other forms of private money as legitimate currency, invoking instead the *legis causae* principle. The primary argument in this context is that these items fail to satisfy the criteria for legal tender[29].

The CBDC concept lacks consistency in terms of its construction, regulations governing the entities authorised to own it, as well as laws regulating its circulation. This paper will consider two primary models. The first involves money represented as entries in a central bank account (*account-based model*), while the second proposes digital money in the form of tokens (*token-based model*). The selection of a specific model for CBDC directly relates to the challenge of establishing a suitable infrastructure for its circulation, which may be either centralised or decentralised[30]. In a centralized infrastructure format, the central bank manages the circulation of money and carries out transactions, while in a decentralized infrastructure

25 Ibidem p. 159.

26 Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on markets in crypto-assets, and amending regulations (EU) no 1093/2010 and (EU) no 1095/2010 and directives 2013/36/EU and (EU) 2019/1937 O.J. L 150, p. 40.

27 Ibidem, 158.

28 Birne, *Das Allgemeine Privatrecht der Blockchain-Token Lex lata et ferenda*, 199.

29 See Felix Dasser in: *Basler Kommentar. Internationales Privatrecht*, ed. Pascal Grolimund, Leander D. Loacker, Anton K. Schnyder (Basel: Helbing Lichtenhahn, 2021), 1427.

30 See Sebastian Omlor, „Digitaler Euro, E-Geld(-Token) und tokenisierte Sichteinlagen: digitale Geldformen im Vergleich" *Zeitschrift für Bankrecht und Bankwirtschaft*, No. 6 (2023): 331.

format, transactions are conducted by the holders of digital money or their intermediaries[31]. In both of these types, a distinction is made between models where the holder has direct or indirect (hybrid) access to funds, based on the connection between the central bank intermediary institution and the digital money user[32]. In the latter case, the holder has a claim against the central bank, notwithstanding the presence of intermediary entities in the contractual relationship[33]. The intermediary entity acts on the user's behalf. The legal relationship between the holder and the intermediary entity combines features of trust, safekeeping and mandate arrangements[34], with transfer verification via authentication of the entity entitled to receive the CBDC.

The issuance of CBDC as a token would rely on a contract between the central bank and a system user, authorising the user to require the bank to convert the token into cash money[35]. Tokens would be circulated in a distributed ledger and their direct transfer between users would be as good as effective payment[36]. The transfer would occur legally via a remittance, with the token serving only as a facilitating arrangement. A tokenized transfer involves the central bank providing consideration to a user (the transferee) based on instructions from another user (the transferor). Tokenization may also involve a tokenized deposit or, more specifically, a claim by the deposit holder against the provider for the reimbursement of the deposited funds, representing a kind of account-based tokenisation of bank money[37]. This token would also be traded via a remittance. The benefit of this system is that participating banks settle between themselves, with the token being credited to the receiving bank. In legal terms, this sort of settlement is characterised as a fusion

31 See Mirjam Eggen, „Die rechtliche Ausgestaltung von Retail CBDC" *Gesellschafts- und Kapitalmarktrecht*, No. 4 (2022): 149.

32 Cornelia Manger-Nestler, „Digitales Geld für die digitale Welt – Der Verordnungsvorschlag der Europäischen Kommission zur Einführung eines digitalen Euro" *Zeitschrift für Bankrecht und Bankwirtschaft*, No. 6 (2023): 349.

33 See Egge, *Die rechtliche Ausgestaltung*, 150.

34 Manger-Nestler, *Digitales Geld*, 350.

35 Mirjam Eggen, Cornelia Stengel, „Optionen zur rechtlichen Ausgestaltung von digitalem Zentralbankgeld (Wholesale CBDC)" *Zeitschrift für Gesellschafts- und Kapitalmarktrecht*, No. 2 (2020): 207.

36 Ibidem, 207.

37 See Mirjam Egger, „Tokenisiertes Buchgeld: Programmierbar? Aber sicher!", *Aktuelle Juristische Praxis/Pratique Juridique*, No. 4 (2024): 303; Actuelle BIS, Annual Economic Report, Juni 2023, 90.

of *cash leg* and *asset leg* in the transfer of money and the representation of asset value on a delivery versus payment basis[38]. A distributed ledger is proposed in place of the token system, whereby CBDC is solely held and traded. These solutions exhibit similarities to the dematerialized securities record system[39], which fall within the scope of existing conflict-of-law legislation. Unlike the *account-based* model, where identity verification is required, this model only authenticates the transfer value, with the parties remaining anonymous.

The aforementioned models also have effect on the rules for the identifying CBDC holders. This model states that CBDC is designed for high-value payments (wholesale CBDC)[40], or qualified financial market players, particularly universal banks, that participate in payment and settlement systems. The circulation of CBDC would occur via a remittance similar to that of bank money, with the qualified entity using tokens to access cash[41]. The construction of a system for international large-value payments involves specific models that focus on the interoperability of payment and settlement systems, the storage of funds in electronic accounts, and the management of accounts for digital currencies issued by foreign central banks, as well as models based on a universal payment infrastructure connected to national systems[42].

CBDC may also be conceptualized to resemble currency (coins and notes) accessible to all users, including consumers and payment service providers, specifically for retail transactions (retail CBDC). Such generally accessible money would be provided either directly by the central bank via individual accounts or via intermediaries. The central bank's management of individual digital currency accounts would call for a suitable payment infrastructure.

Legal scholars tend to criticise the mapping-based model due to risks associated with the open-access format[43]. For that reason, the use of intermediary bodies, namely licensed providers managing individual accounts that indirectly reflect the value of central bank-held digital money, is contemplated. The nature of such money stored in an account managed

38 See Egger, „Tokenisiertes Buchgeld", 303, Martin Hess, „Stablecoins" *Aktuelle Juristische Praxis/Pratique Juridique Actuelle*, No. 8 (2023): 939.

39 Eggen, Stengel, „Optionen", 207.

40 Bank of International Settlements „Central bank currencies" 2018, p. 7.

41 See Eggen, Stengel, „Optionen", 206.

42 Birne, *Das Allgemeine* Privatrecht, 210.

43 Mirjam Eggen, *Die rechtliche Ausgestaltung*, 147.

by an intermediate body would be analogous to conventional bank money. There are proposals for a hybrid form of CBDC, whereby users would have restricted access and could not enter into transactions independently, but instead engage via an intermediary while maintaining a direct claim against the central bank[44].

4 Connecting factors between digital currency-based legal relationships and the legal order

The conceptualization of money influences the selection of the connecting factors between money and a legal framework. Currency having the form of coins and banknotes, or monetary tokens, is a tangible asset. In conflict-of-law legislation, it is essential to consider its legal component. The characteristics of certain objects stem from the roles assigned to them by public legislation. This is a significant factor that must not be overlooked while establishing the pertinent connecting factors.

The decisive connecting factor for payments made with coins and banknotes will be the location of the currency, in line with the *lex rei sitae* principle[45]. The applicable law to the legal relationship based on bank money, unless otherwise selected, is the law determined pursuant to Article 4(1)(b) of the Rome I Regulation[46] (*lex causae*). Under that provision, a contract for the supply of services is regulated by the legislation of the country where the banking service provider has its primary place of business, or registered office. The same principle applies under the conflict-of-law principle set out in Article 4(2) of the Rome I Regulation, whereby a contract that falls outside the scope of Article 4(1) or whose elements make it subject to more than one of the cases specified in Article 4(1)(a)-(h) will be governed by the law of the country where the party responsible for the bulk of contractual obligations habitually resides. Under these arrangements,

44 Birne, *Das Allgemeine Privatrecht*, 216.

45 See Klein, „Money", 579.

46 Regulation (EC) No 593/2008 of the European Parliament and of the Council of 17 June 2008 on the law applicable to contractual obligations (Rome I) (O.J. EU 2008 L 177, p. 6).

the agreement is performed at the registered office of the account-holding bank. These connecting factors are relevant due to the need for engaging intermediaries to effect international monetary transfers and to facilitate settlements inside the payment system framework.[47] The relationship between the intermediary entity and the funds holder, which determines the way in which the transaction occurs (when and where the funds are paid), is therefore a key factor in deciding which laws are applicable.

The doctrine of private international law emphasises the authoritative nature of the law determined by the location of monetary performance (*lex loci solutionis*), while simultaneously acknowledging its unique characteristics in the context of monetary matters[48]. According to these views, the law of the place of payment is not the law of the country where the debtor actually performs the specific acts aimed at satisfying the creditor's interest[49], but the law in force at the place where payment is to be made in accordance with the law or the contract[50]. The *legis loci solutionis* principle may be the authoritative connecting factor in cases of payments made in cash or bank money[51]. It should understood that monetary performances are in principle covered under the *legis causae* principle set out in Article 12(1) Rome I. On the other hand, it follows from Article 12(2) of Rome I that the law of the country in which performance takes place (*lex loci solutionis*) governs the method of performance and the measures which the creditor may take in the event of improper performance. The referenced conflict-of-law rules apply to the place of performance but they do not apply to money even when it happens to be a component of such performance. Making a payment with bank money in international relations also requires that account be taken of substantive regulations governing the payment's effectiveness, making it possibly difficult to clearly identify the place of performance. Noteworthy factors also include the possibility of making payments with money that is not legal tender at the place of

47 Marcin Glicz, „Wybrane zagadnienia kolizyjno-prawne funkcjonowania międzynarodowych systemów transakcyjnych i rozliczeniowych" *Gdańskie Studia Prawnicze*, No. 1 (2022): 56.

48 See Żmij, *Prawo waluty*, 112.

49 Cf. ibidem, 112.

50 See ibidem, 112.

51 Cf. Caroline Kleiner, „The Law(s) applicable to Central Bank Digital Currencies", [in:] *Blockchain and Private International Law*, ed. Andrea Bonomi, Matthias Lehmann, Shaheeza Lalani (Leiden-Boston: Brill, 2023), 363.

as well as correspondence banking. As a result, the authoritative nature of the place of performance becomes less relevant[52].

The functions of money as a monetary unit, a means of payment, and a unit of settlement stem from the decisions of the public authority of a particular state, which uses its organisational and functional powers to define, name[53] and endow the monetary unit with the capability to redeem liabilities, making it an emanation of the legal system in force in a particular state[54]. This has to do with the principle of sovereignty enshrined in public international law. These rules, referred to as the *lex monetae* principle, have an impact on the civil law relations within international trade. However, the *lex monetae* principle does not encroach contractual relations between the parties, nor does it change the amount of the liability, as this falls within the scope of contractual law[55]. Jurisprudence also emphasises that the *legis monetae* principle is not a conflict-of-law rule. This is justified by the argument that jurisdiction decided pursuant to the *legis monetae* criterion does not derive from the application of conflict-of-law rules under private law, but from the state fulfilling its obligation to recognise foreign monetary systems together with the sole authority of foreign powers in matters involving their own currency[56].. The implementation of this obligation does not give rise to a conflict of laws, since the law of the issuing state always applies when the monetary obligation involves its currency. The operation of the *legis monetae* principle has been extended to cover conflict of laws under Swiss law. Article 147 § 1 of IPRG defines that states are free to define money where their own currencies are concerned. The same solution was adopted by the Romanian legislator

52 See Article 147 § 3 of the Swiss Federal Act on Private International Law (PILA) of 18 December 1987. According to this provision, the law of the state in which payment must be made determines the currency in which the payment must be effected. A similar regulation is found in the Romanian Civil Code. According to Article 2.646 (3) the law of the state in which the payment must be performed determines the currency in which it is to be made, except only if, in the relationships of private international law arising from contracts, the parties agreed another payment currency.

53 See Nikolaus Reinhuber, *Grundbegriffe und internationaler Anwendungsbereich von Währungsrecht* (Berlin-New York: De Gruyter, 1995), 224.

54 See Machnikowski in: *Kodeks cywilny. Komentarz*, art. 358, nb. 2.

55 See Charles Proctor, „Legal Tender under English Law", [in:] Robert Freitag, Sebastian Omlor, *The Euro as Legal Tender: A Comparative Approach to a Uniform Concept* (Berlin-Boston: De Gruyter, 2020), 99.

56 See Kleiner, „Money", 578.

in Article 2.646 (1) of the Romanian Civil Code, whereby the currency of payment is governed by the law of the issuing country.

Deciding jurisdiction over matters involving virtual currency is made difficult by a number of complicating factors that preclude the application of certain connecting factors due to technology. First of all, criteria based on the physical location of the virtual currency (*lex rei sitae*) and on the location of the account (*lex conto sitae*)[57] must be rejected due to their operation within a distributed ledger context. It is equally impossible to use the criterion of the ledger operator's place of business or registered office, since the so-called *permissionless blockchain* is used for virtual currencies, allowing any entity to be a participant and independently verify other participants and transactions[58]. Virtual currencies may be decentralised or may be based on institutionalised structures. An additional problem is posed by the far-reaching technological differences in the operation of a distributed ledger. These circumstances cannot be ignored when looking for appropriate connecting factors to a specific legal order. Attempts to resolve the difficulties in establishing objective connecting factors for legal relations involving *cryptocurrencies* are often based on divergent concepts, such as *legis fori*[59] (which some say is a fragmentating influence and encourages forum shopping)[60] as well *lex cryptographica*, a set of rules designed to govern digital space and lay down access rules[61]. The governing rules for legal relations should be autonomous and codified. The *legis cryptographicae* principle conceptualised as making futile the search for an adequate legal forum has been rightly criticised[62]. A code cannot be a source of those kinds of regulations[63]. Indeed, it does not even do as much as indicate the applicable law.

On the other hand, a positive view should be taken of solutions regarding money in the strict sense, which recognise the authoritative nature of connecting factors to a seat of institutional power on the *lex monetae*

57 See Matthias Lehmann in: *Münchener Kommentar zum BGB. Internationales Finanzmarktprivatrecht*, Vol. XIII, 8th ed. (München: C.H. Beck 2021), nb. 602.
58 See Szostek, *Blockchain*, 49; Lehman in: *Münchener Kommentar*, nb. 605.
59 Lehman, *Münchener Kommentar*, nb. 605.
60 Ibidem, nb. 605.
61 See Świerczyński, *Przełomowe*,147 et seq.
62 Ibidem, 157.
63 See Lehmann, *Digital* Assets, 2.

model[64]. This concept is structurally similar to the connecting factor of the seat of institutional authority in charge of a distributed ledger. It is also one of the possible connecting criteria when deciding the applicable law to digital assets[65].

Which of the aforementioned connecting factors might be used to authoritatively link CBDC to a particular jurisdiction? Its digital nature precludes a connection to the principle of location (*lex rei sitae*). Objective connecting factors may, however, be applicable to a limited degree. This relates to the central bank's location as an authoritative factor in deciding the applicable law to the distributed ledger in which the currency operates. However, these criteria may be less relevant in the context of cross-border monetary circulation within the framework of international trading. National legislation of the state in which the issuing central bank is headquartered, or *lex monetae*, would also have a role to play. The European Central Bank and the central banks of euro area nations have the authority to issue the digital euro. Legal scholars rightly call for a revision of the *legis monetae* principle with regard to transnational currency used by multiple governments. In such cases, the applicable law should be that of the monetary authority, rather than the nation that issued the digital currency[66]. Digital money would therefore have to have the status of legal tender.

The quest for definitive connecting factors for transactions conducted using digital currency is a separate problem. The possibility of an alternative classification of bank money or other types of private money under substantive law cannot be dismissed. A further issue is the identification of the place and time of effective performance of monetary obligations using digital currencies, particularly international currencies (e.g., the euro), which are also used in countries outside the issuing states. The selection of appropriate connecting factors for legal relations involving future EU central bank digital currency will be contingent upon the particular regulatory framework used. Nonetheless, several factors suggest that it

64 See Derwis Dilek, „IPR der Blockchains: Die Bestimmung des Sachstatuts digitaler Werte – Ein Gesetzesvorschlag", [in:] Sebastian Omlor, Florian Möslein, *Blockchain und Recht* (Tübingen: Mohr Siebek, 2023), 194; for alternatives in determining connecting factors see Burcu Yüksel Ripley, Florian Heindler, *The Law Applicable to Crypto Assets: What Policy Choices Are Ahead of Us* ?, [in:] Andrea Bonomi, Matthias Lehmann, Shaheeza Lalani, *Blockchain and Private International Law*, Leiden, Boston: Brill, 2023, p. 277.

65 Dilek, „IPR der Blockchains", 195.

66 Kleiner, „The Law(s)", 369.

will resemble bank money rather than cash money.[67] The use of such currency will require the involvement of intermediary entities. The relationships of obligation that underpin the system architecture will therefore be fundamental. Furthermore, the distinct characteristic of digital currency as a liability of the central bank must be considered.

5 Conclusions

The paper focused on the problem of CBDC with regard to conflicts of law. The analytical emphasis was on the classification of digital currency under private international law and the identification of relevant requirements for its connection with the legal framework of a certain state. The findings support the assertion that money should be studied comprehensively in the context of private international law, taking into account its role in contemporary trade. A functional approach enables the identification of the fundamental attributes of money. This approach facilitates the analysis of the juridical construction of various CBDC models in terms of their classification under conflict-of-laws principles. Indeed, such an approach is essential for formulating criteria to connect legal relationships involving digital currency to a specific legal order. Based on the totality of its findings, the paper puts forward the thesis that the emergence of new monetary forms necessitates the establishment of new provisions of private international law to address conflicts emerging from international financial transactions. Conflict-of-laws legislation governing conventional currency, such as coins, banknotes, and bank money, is inadequate for digital currencies. Research on emergent virtual currencies has revealed regulatory inadequacies in deciding jurisdiction. Consequently, in order to guarantee the security of legal transactions, the establishment of conflict of law legislation concerning CBDC should be promoted at the EU level. These regulations must consider the prospective legal framework for the issuance of digital currency and the rules of use in global financial markets.

67 Omlor, *Digitaler Euro*, 333.

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