

WHEN IS A CRYPTOCURRENCY TRANSFER INTERNATIONAL IN DISTRIBUTED LEDGER TECHNOLOGY-BASED SYSTEMS?*

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ABSTRACT

Cryptocurrencies, introduced in 2009 with the first cryptocurrency, Bitcoin, have grown significantly in recent years and attracted attention globally. One of the main characteristics of cryptocurrencies and their key innovation is that they are underpinned by distributed ledger technology (DLT) or blockchain as a type of DLT. This technology enables cryptocurrencies to be transferred, stored or traded electronically within DLT-based systems in a peer-to-peer manner among (pseudonymous) system participants across the world without the involvement of the usual central trusted authorities or intermediaries such as banks. This raises the question of if, and how, one should ascertain internationality for cryptocurrency transfers taking place within truly global systems underpinned by DLT for private international law purposes.

This article aims to raise awareness of and address the question of internationality in the context of cryptocurrency transfers in DLT-based systems. It considers internationality in private international law, potential factors that might be relevant in ascertaining internationality for cryptocurrency transfers through a comparison to that for electronic funds transfers (EFTs), and the approaches of the International Institute for the Unification of Private Law (UNIDROIT) and the Hague Conference for Private International Law (HCCH) on internationality in their current projects concerning digital assets and digital economy respectively.

Keywords: *Blockchain, cryptocurrency, distributed ledger technology, foreign element, internationality, private international law*

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1. INTRODUCTION

Cryptocurrencies, introduced in 2009 with the first cryptocurrency Bitcoin,¹ have grown significantly in recent years and attracted attention globally. They now represent a sub-category of cryptoassets, which are mainly used as a means of exchange but are not state backed,² under the broader umbrella of digital assets that accommodate different types of assets emerging with the use of technology.

One of the main characteristics of cryptocurrencies and arguably their key innovation is that they are underpinned by distributed ledger technology (DLT) or blockchain as a type of DLT.³ This technology enables cryptocurrencies to be transferred, stored or traded electronically within DLT-based systems in a peer-to-peer manner among system participants across the world without the involvement of the usual central trusted authorities or intermediaries such as banks.⁴ Transactions are directly made between the respective participants after being verified and validated by other participants in the system (known as miners in Bitcoin) according to consensus rules or protocols.⁵ This technology also enables secure digital records in relation to those transactions to be held at a ledger distributed across the system, allowing system participants to have an identical copy of the ledger and precluding the ledger being modified by a participant secretly.⁶ DLT-based systems represents a significant shift from intermediation to disintermediation and from centralised ledgers to not only decentralised but also distributed ledgers.⁷ This can potentially transform many areas and sectors which have traditionally operated

¹ See Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System*, 2008.

² See e.g. UK Cryptoassets Taskforce, *Final report*, 2018, pp. 11-15, [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/752070/cryptoassets_taskforce_final_report_final_web.pdf], Accessed 1 February 2023.

³ Ali, R.; Barrdear, J.; Clews, R.; Southgate, J., *Innovations in Payment Technologies and the Emergence of Digital Currencies*, Bank of England Quarterly Bulletin, Vol. 54, 2014, pp. 262-275, p.262.

⁴ See generally Geva, B., *Banking in the Digital Age- Who is Afraid of Payment Disintermediation*, EBI Working Paper Series, No. 23, 2018.

⁵ UK Jurisdiction Taskforce, *Legal statement on cryptoassets and smart contracts*, 2019, par. 30, [https://35z8e83m1ih83drye280o9d1-wpengine.netdna-ssl.com/wp-content/uploads/2019/11/6.6056_JO_Cryptocurrencies_Statement_FINAL_WEB_111119-1.pdf], Accessed 1 February 2023.

⁶ See de Caria, R., *A Digital Revolution in International Trade? The International Legal Framework for Blockchain Technologies, Virtual Currencies and Smart Contracts: Challenges and Opportunities, Modernizing International Trade Law to Support Innovation and Sustainable Development* UNCITRAL, 2017, p. 106, [<https://aperto.unito.it/retrieve/handle/2318/1632525/464608/R.%20de%20Caria%2c%20A%20Digital%20Revolution%20%282017%29.pdf>], Accessed 1 February 2023.

⁷ For the advantages that DLT-based systems offer, see e.g., Yüksel, B.; Heindler, F., *Use of Blockchain Technology in Cross-Border Legal Cooperation under the Conventions of the Hague Conference on Private International Law (HCCH)*, Aberdeen Law School Blog, 2019, [<https://www.abdn.ac.uk/law/blog/use-of-blockchain-technology-in-crossborder-legal-cooperation-under-the-conventions-of-the-hague-conference-on-private-international-law-hcch/>], Accessed 1 February 2023.

based on intermediation and with centralised ledgers, and can have a wide range of applications including, but not limited to, cryptocurrencies.⁸

DLT raises several private international law issues, particularly in the determination of international jurisdiction and applicable law. In relation to cryptocurrencies, as identified by the Hague Conference on Private International Law (HCCH), these issues include the law applicable to cryptoassets,⁹ the law applicable to transfers of cryptoassets on a blockchain and outside a blockchain, the determination of international jurisdiction, and party autonomy in respect of jurisdiction and applicable law.¹⁰ The traditional private international law questions with respect to international jurisdiction and applicable law get more complicated in the context of cryptocurrencies given that cryptocurrency systems underpinned by DLT or blockchain ‘do not recognise traditional national borders and have global reach’¹¹ and can have pseudonymous system participants whose true identities are not known and not disclosed to each other. This raises the question of if, and how, one should ascertain internationality for cryptocurrency transfers in DLT-based systems for private international law purposes, which is a question that has not attracted much attention yet.

This article aims to raise awareness of and address the question of internationality in the context of cryptocurrency transfers in DLT-based systems by considering internationality in private international law, potential factors that might be relevant in ascertaining internationality for cryptocurrency transfers through a comparison to that for electronic funds transfers (EFTs), and the approaches of the International Institute for the Unification of Private Law (UNIDROIT) and the HCCH on internationality in their current projects concerning digital assets and digital economy respectively including cryptocurrencies.

2. INTERNATIONALITY IN PRIVATE INTERNATIONAL LAW

It might be best to start the analysis with the question of why internationality matters, before addressing what internationality means and how it is defined. In-

⁸ See e.g. HCCH, *Proposal for the Allocation of Resources to Follow Private International Law Implications relating to Developments in the Field of Distributed Ledger Technology*, in particular in relation to ‘Financial Technology’, Preliminary Document 28 February 2020, par. 8., [<https://assets.hcch.net/docs/f787749d-9512-4a9e-ad4a-cbc585bddd2e.pdf>], Accessed 1 February 2023.

⁹ On this issue, see Yüksel Ripley, B.; Heindler, F., *The Law Applicable to Cryptoassets: What Policy Choices are ahead of us* in Bonomi, A.; Lehmann, M; Lalani S. (eds.), *Distributed Ledger Technologies and Private International Law*, Brill, forthcoming.

¹⁰ HCCH, *op. cit.*, note 8, pars. 10-15.

¹¹ *Ibid.*, par. 9.

ternationality matters because when a transaction, relationship or situation is international or, in private international law jargon, involves a foreign element, this means that that transaction, relationship or situation is no longer contained in the domestic arena. Different laws and jurisdictions then potentially become relevant to that transaction, relationship or situation. It is the very essence of the existence of private international law, as a discipline, to resolve the conflict of jurisdictions and the conflict of laws in such cases by determining a court of the competent jurisdiction to hear disputes arising from that transaction, relationship or situation and the law applicable to them to resolve the substance of the disputes.

In private international law, a foreign element is generally understood as an element that connects a transaction, relationship or situation to more than one legal system.¹² It is this foreign element that a transaction, relationship or situation involves which triggers a private international law analysis. This foreign element traditionally derives from the persons (such as the party's nationality) or the places/locations (such as the place of performance) concerned.¹³

A distinction is made by some, particularly in the field of contracts, between situations with a foreign element and situations of an international character.¹⁴ However, there is no agreement in private international law on the criteria that would give a transaction, relationship or situation an international character. Arguments on this matter, mainly raised in relation to contracts, seem to differ from one legal system to another and by time.¹⁵ In general, the international character of a transaction, relationship or situation can be determined based on an objective, economic or subjective test,¹⁶ and different factors can have varying importance and weight in this determination depending on the nature of a given transaction,

¹² See e.g. See Lord Collins of Mapesbury *et al.*, *Dicey, Morris & Collins on the Conflict of Laws*, 15th ed, Sweet and Maxwell, 2014, pars. 1-001- 1-002.

¹³ See e.g. Nomer, E., *Devletler Hususi Hukuku*, 21st ed., İstanbul, Beta, 2015, p. 5; Tekinalp, G.; Uyanık, A., *Çavuşoğlu, Milletlerarası Özel Hukuk Bağlama Kuralları*, 12th ed., İstanbul, Vedat, 2016, p.18.

¹⁴ von Hoffmann, B., *General Report on Contractual Obligations* in Lando, O.; von Hoffmann, B.; Siehr, K. (eds.), *European Private International Law of Obligations*, Tübingen, J.C.B. Mohr (Paul Siebeck), 1975, pp. 1-41, pp. 15-17; Collins, L., *Contractual Obligations- The ECC Preliminary Draft Convention on Private International Law*, *International and Comparative Law Quarterly*, Vol. 25, No.1, 1976, pp. 35-57, p. 41.

¹⁵ See Lando, O., *International Situations and Situations Involving a Choice between the laws of Different Legal Systems*, in Lipstein, K. (ed), *Harmonization of private international law by the E.E.C*, London, Institute of Advanced Legal Studies, 1978, pp. 15-24, p. 19; Lando, O., *The Conflict of Laws of Contracts: General Principles*, *Recueil des Cours*, Vol. 189, 1984, pp. 225-447, pp. 286-287.

¹⁶ For an analysis on these tests, see Nygh, P., *Autonomy in International Contracts*, OUP, 1999, pp. 48-55.

relationship or situation.¹⁷ For example, the nationality of the parties can possibly have greater importance in the law of persons compared to the law of contracts.

Internationality should not be seen merely as a theoretical question. It plays an important role in defining and determining the scope of application of legal instruments through different techniques and approaches.¹⁸ For example, Article 1(1) of the HCCH 2005 Choice of Court Agreements Convention¹⁹ limits its scope of application to international cases and provides a negative definition of internationality by excluding purely domestic cases.²⁰ According to Article 1(2), for the purposes of jurisdictional rules of the Convention, ‘a case is international unless the parties are resident in the same Contracting State and the relationship of the parties and all other elements relevant to the dispute, regardless of the location of the chosen court, are connected only with that State’. The Explanatory Report of the Convention illustrates the internationality via an example where parties choose a court in Japan for a contract which is made in Portugal between parties both residing in Portugal and to be performed in Portugal.²¹ Such a case is not considered international under the Convention since all elements are connected to Portugal except for the location of the chosen court.²² Primarily inspired by Article 1(2) of the HCCH 2005 Choice of Court Agreements Convention, the HCCH 2015 Principles on Choice of Law in International Commercial Contracts²³ also provides a negative definition of internationality for contracts in Article 1(2) by excluding contracts where ‘each party has its establishment in the same State and the relationship of the parties and all other relevant elements, regardless of the chosen law, are connected only with that State’.²⁴ According to the

¹⁷ Regarding contracts, see Delaume, G. R., *What is an International Contract? An American and a Gallic Dilemma*, *International and Comparative Law Quarterly*, Vol. 28, No.2, 1979, pp. 258-279, p. 279.

¹⁸ See Kronke, H., *Connecting Factors and Internationality in Conflict of Laws and Transnational Commercial Law*, in Boele-Woelki, K.; Einhorn, T.; Girsberger, D.; Symeonides, S. (eds.), *Convergence and Divergence in Private International Law— Liber Amicorum Kurt Siehr*, The Hague– Zürich, Eleven International Publishing – Schulthess, 2010, pp. 57-70, pp. 67-69.

¹⁹ Convention on Choice of Court Agreements, 30 June 2005.

²⁰ Hartley, T.; Dogauchi M., *Explanatory Report of the Convention of 30 June 2005 on Choice of Court Agreements*, HCCH, par. 11, [<https://www.hcch.net/en/publications-and-studies/details4/?pid=3959&dtid=3>], Accessed 1 February 2023. (Hartley/Dogauchi Report). See also Weller, M., *Choice of court agreements under Brussels Ia and under the Hague Convention: Coherences and clashes*, *Journal of Private International Law*, Vol. 13, No. 1, 2017, pp. 91-129, pp. 93-97.

²¹ *Ibid.*, par. 42. The illustration assumes that the Convention is in force in the States mentioned therein.

²² *Ibid.*

²³ HCCH, *Principles on Choice of Law in International Commercial Contracts*, [<https://www.hcch.net/en/instruments/conventions/full-text/?cid=135>], Accessed 1 February 2023.

²⁴ See par. 1.14 of the Commentary of the HCCH 2015 Principles on Choice of Law in International Commercial Contracts, [<https://www.hcch.net/en/instruments/conventions/full-text/?cid=135>], Accessed 1 February 2023.

Commentary, the exclusion of only purely domestic situations from the definition of internationality reflects the aim of conferring ‘the broadest possible scope of interpretation to the term ‘international’’.²⁵

The HCCH 1986 Convention on the Law Applicable to Contracts for the International Sale of Goods,²⁶ on the other hand, provides a positive definition of internationality²⁷ and identifies its scope of application in Article 1 as contracts ‘a) between parties having their places of business in different States; b) in all other cases involving a choice between the laws of different States, unless such a choice arises solely from a stipulation by the parties as to the applicable law, even if accompanied by a choice of court or arbitration’.²⁸ The HCCH 2006 Securities Convention²⁹ adopts a broad descriptive approach to internationality³⁰ in Article 3 by referring to ‘all cases involving a choice between the laws of different States’.³¹ This is to ensure the Convention’s applicability ‘unless there is absolutely no element in the facts of a case (e.g., ‘location’ of a person involved in or affected by a transaction or of an activity of such a person, ‘location’ of a security or its issuer, presence of a governing law clause or any other ‘governing law’ factor or element) that might require a decision as to which of two or more legal systems is applicable’.³² It is interesting to note that the Explanatory Report of the Convention seems to suggest a distinction between a foreign element and internationality in respect of the Convention’s applicability.³³ Based on the Explanatory Report, although the title of Article 3 is internationality, the text of it does not use the term intentionally so that situations which appear at first glance to be wholly internal are still covered by the Convention due to the foreign element they involve.³⁴ The Rome

²⁵ *Ibid.*

²⁶ Convention on the Law Applicable to Contracts for the International Sale of Goods, 22 December 1986.

²⁷ For this interpretation, see par. 1.15 of the Commentary of the HCCH 2015 Principles on Choice of Law in International Commercial Contracts, *op. cit.*, note 24.

²⁸ For further information on internationality in the scope of this Convention, see von Mehren, A. T., *Explanatory Report of the Convention on the Law Applicable to Contracts for the International Sale of Goods*, HCCH, 1987, pars 21-25.

²⁹ Convention on the Law Applicable to Certain Rights in Respect of Securities held with an Intermediary, 5 July 2006.

³⁰ Goode, R.; Kanda, H.; Kreuzer K. with the assistance of Bernasconi C., *Hague Securities Convention Explanatory Report*, HCCH, 2017, par. 3-3.

³¹ The term ‘cases’ is understood as ‘situations’ in this context, see *ibid.*, par. 3-12.

³² *Ibid.*, par. 3-12.

³³ *Ibid.*, par. 3-4.

³⁴ *Ibid.*

I Regulation on the law applicable to contractual obligations,³⁵ applied in the European Union (EU) and retained by the United Kingdom (UK)³⁶ post-Brexit, also provides a broad approach to internationality by defining the Regulation's scope of applicability to 'situations involving a conflict of laws' in Article 1(1)'.

Internationality is considered as a requirement which is 'consistent with the traditional understanding that private international law applies only to international cases'.³⁷ Therefore, although its definition can vary considerably among legal instruments, there is typically a definition or test for internationality to be satisfied under the legal instruments.

3. INTERNATIONALITY OF CRYPTOCURRENCY TRANSFERS IN DISTRIBUTED LEDGER TECHNOLOGY BASED-SYSTEMS

Based on the analysis in chapter II of this article, for a cryptocurrency transfer to be subject to a private international law analysis, there needs to be an element that gives the transfer an international character. The question therefore arises as to if, and how, such an element will be ascertained in cryptocurrency transfers taking place within truly global systems underpinned by DLT to trigger a private international law analysis.

3.1. Ascertainment of Internationality

A distinction can be made between a transfer involving a foreign element and a transfer being international for private international law purposes.³⁸ Cryptocurrency systems underpinned by DLT would ordinarily and unavoidably involve a foreign element since these systems have participants located in different jurisdictions and the ledger, distributed across the system participants, exist potentially in many places.³⁹

³⁵ 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) [2008] OJ L177/6 (Rome I Regulation).

³⁶ The Law Applicable to Contractual Obligations and Non-Contractual Obligations (Amendment etc.) (EU Exit) Regulations 2019 (SI 2019/834) as amended by the Jurisdiction, Judgments and Applicable Law (Amendment) (EU Exit) Regulations (SI 2020/1574).

³⁷ Par. 1.13 of the Commentary of the HCCH 2015 Principles on Choice of Law in International Commercial Contracts, *op. cit.*, note 24.

³⁸ For an argument in favour of the same distinction regarding EFTs, see Yüksel, B., *Uluslararası Elektronik Fon Transferine Uygulanacak Hukuk*, XII Levha, 2018, p. 39-40.

³⁹ For the argument that if a smart contract is operated on a blockchain that involves nodes across various jurisdictions, this should be considered as a sufficient connection to a foreign country, see Rühl, G., *Smart (Legal) Contracts, or: Which (Contract) Law for Smart Contracts?* in Cappiello, B.; Carulo, G. (eds.), *Blockchain, Law and Governance*, eBook, Springer, 2021, pp. 159-180, pp. 163-164.

One might therefore argue that all cryptocurrency transfers within DLT-based systems are international.⁴⁰

However, there may be examples which indicate otherwise. For example, Bitcoin is accepted as a form of payment, to different extents, in various countries in shops, bars and cafes.⁴¹ Although Bitcoin transfers take place within the Bitcoin system underpinned by blockchain and are executed with the involvement of miners who informally work in a peer-to-peer manner as transaction verifiers and bookkeepers around the world with no central coordination,⁴² a Bitcoin transfer to make a payment between the two parties located in the same jurisdiction is in essence a domestic transfer, not an international one. Cryptocurrencies are also used and give rise to legal questions in other wide-ranging matters, including family⁴³ and succession matters, in purely domestic situations as well. On this basis, the mere fact that a cryptocurrency transfer is executed within a DLT system may not be sufficient on its own to give a cryptocurrency transaction an international character.

The question of internationality has been raised in respect of EFTs too.⁴⁴ An EFT is the movement of funds between different bank accounts by electronic means.⁴⁵ It is in essence the transfer of value without the need of a physical transfer of money⁴⁶ and, whilst this resembles a cryptocurrency transfer, the way that EFTs and cryptocurrencies are executed is significantly different.⁴⁷ In a typical EFT, there

⁴⁰ See e.g. Guillaume who argues that, given the role of the nodes in the network, the use of the blockchain is sufficient to give blockchain transactions an international scope and that it is statistically unlikely that all the nodes in the network or involved in a given transaction will be located in the same state, Guillaume, F., *Aspects of private international law related to blockchain transactions*, in Kraus, D.; Obrist, T.; Hari, O. (eds.), *Blockchains, Smart Contracts, Decentralized Autonomous Organizations and the Law*, Cheltenham/Northampton, Edward Elgar, 2019, pp. 49-82; p. 59.

⁴¹ For the UK, see e.g. UK Cryptoassets Taskforce Final report, *op. cit.*, note 2, par. 2.18.

⁴² See generally, Ali; Barrdear; Clews; Southgate, *op. cit.*, note 3, p. 266 and 268.

⁴³ See e.g. Hodson, D., *Cryptocurrency and the Family Courts – Some International Experiences*, *Financial Remedies Journal*, No. 1, 2023.

⁴⁴ See generally Yüksel, *op. cit.*, note 38, 41-47.

⁴⁵ For different definitions of EFT having this similar core, see e.g., Geva, B., *The Law of Electronic Funds Transfers*, Matthew Bender, 1994, par. 1-26; Karageorgiou, S., *Electronic Funds Transfers: Technical & Legal Overview*, Thesis, University of London Queen Mary and Westfield College, 1990, page 33; Proctor, C., *The Law and Practice of International Banking*, 2nd ed, OUP, 2015, par. 19.05; United Nations Commission on International Trade Law, *UNCITRAL Legal Guide on Electronic Funds Transfers*, 1987, [www.uncitral.org/pdf/english/texts/payments/transfers/LG_E-fundstransfer-e.pdf] ('UNCITRAL Legal Guide'), Accessed 1 February 2023.

⁴⁶ Cox, R.; Taylor, J., *Funds Transfer* in Brindle, M.; Cox, R. (eds.), *Law of Bank Payments*, Sweet & Maxwell, 2017, par. 3-002; Ellinger, E. P.; Lomnicka, E.; Hare, C. V. M., *Modern Banking Law*, 5th ed, OUP, 2011, p. 559.

⁴⁷ Yüksel Ripley, B., *Cryptocurrency Transfers in Distributed Ledger Technology-Based Systems and Their Characterisation in Conflict of Laws* in Borg-Barthet, J.; Trimmings, K.; Yüksel Ripley, B.; Živković,

are separate bank accounts and the amount is transferred from one to another by adjusting the balances of the relevant bank accounts via debiting the amount from one account and crediting it to another.⁴⁸ This process involves clearing and settlement either on a bilateral basis between the two respective banks that are correspondents holding an account with the other⁴⁹ or on a multilateral basis on the books of a common correspondent bank or of a central bank in a funds transfer system.⁵⁰ Given the reliance on centralisation and intermediation, the suggested definition or test of internationality for EFTs is usually based on the location of banks. For example, the United Nations Commission on International Trade Law (UNCITRAL) Model Law on International Credit Transfers,⁵¹ which only applies to international transfers, adopts a test of internationality in Article 1(1) based on the location of banks by defining its sphere of application as ‘credit transfers where any sending bank and its receiving bank are in different States’.⁵² If these banks are in different states, the transfer is therefore international. In legal literature, the definition of international funds transfer, which has been given by Professor Geva and adopted by many others, indicates a similar approach to internationality by accepting ‘any transfer of funds involving either banks located in more than one country or at least one bank located in a country other than that of the currency of the transfer’ as an international funds transfer.⁵³

However, such a definition or test for internationality for EFTs based on the location of banks does not seem directly applicable to cryptocurrency transfers since there is no bank or similar trusted third party that executes the transfers and records them to the ledger in DLT-based systems. This is done on a peer-to-peer basis by miners or trusted nodes in those systems which rely on distributed ledgers and disintermediation. Ascertaining internationality based on the location of miners or trusted nodes

P. (eds.), *From Theory to Practice in Private International Law: Gedächtnisschrift for Professor Jonathan Fitchen*, Oxford, Hart Publishing, forthcoming.

⁴⁸ Cox; Taylor, *op. cit.*, note 46, par. 3-002; Ellinger; Lomnicka; Hare, *op. cit.*, note 46, 559.

⁴⁹ Geva, *op. cit.*, note 45, par. 1-28; Ellinger; Lomnicka; Hare, *op. cit.* note 46, 464; Malek, A.; Odgers, J., *Page's Law of Banking*, 14th ed, Lexis Nexis, 2014, par. 22.32.

⁵⁰ Geva, *op. cit.*, note 45, 1-28; Ellinger; Lomnicka; Hare, *op. cit.*, note 45, 564; Malek; Odgers, *op. cit.*, note 49, par. 22.32.

⁵¹ UNCITRAL, *The UNCITRAL Model Law on International Credit Transfers*, 1992, [https://uncitral.un.org/en/texts/payments/modellaw/credit_transfers], Accessed 1 February 2023.

⁵² See UNCITRAL, *Explanatory Note on the UNCITRAL Model Law on International Credit Transfers*, 1992, par. 12, [https://uncitral.un.org/en/texts/payments/modellaw/credit_transfers], Accessed 1 February 2023. See also Yüksel, B., *Facilitating International Trade between Turkey and China by International Payments via Electronic Funds Transfer: Problems and Possible Solutions under the UNCITRAL Model Law on International Credit Transfers* in Yenidünya, C.; Erkan, M.; Asat, R. (eds.), *Reopening the Silk Road in the Legal Dialogue Between Turkey and China*, Ankara, Adalet, 2013, pp. 365-393, p. 381.

⁵³ Geva, *op. cit.*, note 45, par. 4-5.

would not be feasible either since their location is usually unknown in pseudonymous systems and is also coincidental.⁵⁴ Therefore, such ascertainment might lead to unexpected results for the parties of the transaction. Location of the transferor and the transferee, on the other hand, can be considered as a criterion for internationality for cryptocurrency transfers if those locations are known or identifiable. Accordingly, a transfer of cryptocurrency in DLT-based systems can be regarded international if the parties of the transfer are located in different countries. Alternatively, the internationality of a cryptocurrency transfer can be subject to the internationality of the underlying relationship between the parties of the transfer.

3.2. Approaches of the UNIDROIT and the HCCH to Internationality

There are currently two important legal initiatives at the international level, by the UNIDROIT and the HCCH, which aim to address aspects of digital assets and digital economy including cryptocurrencies. However, it is not clear whether the UNIDROIT and the HCCH take a particular approach to internationality in this context and, if they do, what that approach is.

3.2.1. UNIDROIT Project on Digital Assets and Private Law

The UNIDROIT has conducted a project on Digital Assets and Private Law,⁵⁵ which resulted in the adoption of the UNIDROIT Principles on Digital Assets and Private Law in May 2023 following a public consultation⁵⁶. At the time of writing of this article, the UNIDROIT Secretariat, mandated by the Governing Council, is working towards the final publication of the instrument and the most up-to-date draft of the Principles is available in the Annexe to the Governing Council document on the Principles on Digital Assets and Private Law.⁵⁷ The draft UNIDROIT Principles consist of 19 principles, each accompanied by

⁵⁴ cf. Garriga Suau who argues that a criterion based on the location of the nodes can be considered for internationality in relation to permissionless blockchains unless the terms and conditions of the blockchain network specify otherwise regarding the internationality of its network, see Garriga Suau, G., *Blockchain-based smart contracts and conflict rules for business-to-business operations*, *Revista Electrónica de Estudios Internacionales*, Vol. 41, 2021, pp. 1-27, pp. 22-23. cf. also Guillaume, *op. cit.*, note 40.

⁵⁵ See UNIDROIT, *Digital Assets and Private Law: Study LXXXII Digital Assets and Private Law Project*, [https://www.unidroit.org/work-in-progress/digital-assets-and-private-law], Accessed 1 February 2023.

⁵⁶ See UNIDROIT, *Digital Assets and Private Law- Public Consultation*, [https://www.unidroit.org/work-in-progress/digital-assets-and-private-law/digital-assets-and-private-law-public-consultation], Accessed 1 February 2023.

⁵⁷ See UNIDROIT, *Item No. 4 on the agenda: Adoption of Draft UNIDROIT Instruments (c) Principles on Digital Assets and Private Law*, 2023, pp. 10- 77, [https://www.unidroit.org/wp-content/uploads/2023/04/C.D.-102-6-Principles-on-Digital-Assets-and-Private-Law.pdf], Accessed 31 July 2023.

commentary, and one of these principles, ie Principle 5, deals with the applicable law under Section II entitled private international law.

Section I of the draft UNIDROIT Principles considers scope and definitions. According to illustration 1 in commentary 2.8, ‘virtual (crypto) currency on a public blockchain (e.g. bitcoin) is a digital asset’. Principle 1 sets out the scope of application as ‘the private law relating to digital assets’. When this is read along the Commentary, it seems that this material scope of application is limited to only certain aspects of private law, in particular property law and insolvency law.⁵⁸ A number of proprietary issues are excluded from the material scope in Principle 3(3). It is interesting to note that the material scope of Principle 5 on the applicable law, on the other hand, is not limited to the issues covered by the Principles.⁵⁹ This is a rather unusual technique as the scope of the provision has a wider scope of application than the instrument it is included in, which raises further questions concerning the relationship between the application of Principle 5 on the applicable law and this UNIDROIT instrument as a whole.⁶⁰

Although the material scope of application is defined in Section I of the draft UNIDROIT Principles, the territorial scope of application is not explicitly defined therein or elsewhere in the Principles. Based on commentary 0.4, it can be inferred that the draft UNIDROIT Principles have been designed to apply in both domestic and international (or cross-border) situations⁶¹ given references therein to transactions involving digital assets that occur in a State and transactions involving persons in different States respectively. It is however not clear what counts as an international (or cross-border) situation for the purposes of these Principles although this requirement or test of internationality becomes particularly important for the application of Principle 5 on the applicable law.⁶² The question therefore arises as to whether all situations relating to proprietary issues in respect of a digital asset are deemed international (or cross-border) under the UNIDROIT Principles and require a conflict of law analysis.⁶³

⁵⁸ See Yüksel Ripley, B.; MacPherson, A.; Poesen, M.; Albargan, A.; Xuan Tung, L., *The response of the Centre for Commercial Law at the University of Aberdeen to the UNIDROIT Digital Assets and Private Law Consultation*, February 2023, p. 2, [<https://www.abdn.ac.uk/law/research/centre-for-commercial-law/public-policy-stakeholder-engagement-1109.php>], Accessed 21 February 2023.

⁵⁹ See commentary 5.2, *op. cit.*, note 57.

⁶⁰ See Yüksel Ripley, *et al.*, *op. cit.*, note 58, p. 4.

⁶¹ See *ibid.*, p. 2.

⁶² *Ibid.*, p. 2 and 5.

⁶³ *Ibid.*, p. 5.

Internationality is also important from the point of choice of law rules provided in Principle 5 which grants parties the power to choose the applicable law.⁶⁴ There is no consensus in private international law on the question of whether parties should be allowed to choose the applicable law for domestic situations.⁶⁵ Internationality is seen as the most common of the parameters and limitations that the principle of party autonomy is subject to in modern private international law codifications and conventions.⁶⁶ This typically may result in parties not being permitted a choice of law for domestic transactions at all, or such choices are accommodated not strictly as a choice of law but, for example, as an incorporation by reference of the provisions of that foreign law into the parties' contract, with or without an express subordination to the mandatory rules of the country with which the situation is wholly connected.⁶⁷ At the stage of the public consultation, it was assessed in relation to the draft UNIDROIT Principles that allowing an unlimited choice of law for domestic transactions would be hard to justify under these considerations and it was suggested that providing 'a presumption of internationality for transactions in digital assets, which could be rebutted in exceptional cases, e.g. a permissioned network limited to participants established in the same country' could address this issue.⁶⁸

⁶⁴ See EAPIL Working Group on the Law Applicable to Digital Assets, *The position paper of the European Association of Private International Law (EAPIL) in response to the public consultation on the UNIDROIT Draft Principles and Commentary on Digital Assets and Private Law issues*, 2023, par. 15, [https://eapil.org/wp-content/uploads/2023/03/EAPIL-WG-Digital-Assets-Position-paper-March-2022-Final.pdf], Accessed 20 March 2023.

⁶⁵ See generally Mills, A., *Party Autonomy in Private International Law*, CUP, 2018, pp. 470-476. See also Ostendorf, P., *The choice of foreign law in (predominantly) domestic contracts and the controversial quest for a genuine international element: potential for future judicial conflicts between the UK and the EU?*, *Journal of Private International Law*, Vol. 17, No. 3, 2021, pp. 421-438.

⁶⁶ On this point regarding party autonomy in contract conflicts, see Symeonides, S. C., *Codifying Choice of Law Around the World: An International Comparative Analysis*, OUP, 2014, pp. 116-117. See also Alborno, M.; Gonzalez Martin, N., *Towards the uniform application of party autonomy for choice of law in international commercial contracts*, *Journal of Private International Law*, Vol. 12, No. 3, 2016, pp. 437-465, pp. 440-443.

⁶⁷ See *ibid.* For a comparative analysis between Turkish and EU private international law on this matter, see also Yüksel, B., *Choice of Law in Civil and Commercial Matters under Turkish Private International Law in Comparison with their Equivalents under the Rome I and Rome II Regulations*, in Beaumont, P.; Yüksel, B. (eds.), *Turkish and EU Private International Law: A Comparison*, Istanbul, XII Levha, 2014, pp. 153-223, pp. 165-166.

⁶⁸ EAPIL, *op. cit.*, note 63, par. 15. See also the argument for an assumption that 'all blockchain transactions must be considered international by nature' unless 'all nodes, all the users, as well as the operator of the blockchain are located in the same State' by Guillaume, *op. cit.*, note 40.

3.2.2. HCCH Work on Private International Law Implications of the Digital Economy

The HCCH has been closely following the developments with respect to private international law implications of the digital economy including DLT and its certain applications since 2020.⁶⁹ The HCCH has also been closely cooperating and coordinating, including through participation as an observer, with the UNCITRAL and UNIDROIT in relation to their work in this area including the UNIDROIT's project on Digital Assets and Private Law.⁷⁰ As an intergovernmental organisation working with the mandate of the progressive unification of the rules of private international law,⁷¹ the focus of the HCCH's work in the area has been on specific private international law issues arising from emerging technologies and applications in the digital economy, including DLT applications, such as:

- 'jurisdiction and choice of court (e.g., how to determine the competent court to resolve a dispute in relation to a crypto asset),
- applicable law and choice of law (e.g., what is the most appropriate connecting factor defining the law applicable to a transaction via blockchain)',
- recognition and enforcement (e.g., how to enforce a foreign judicial decision in relation to a service regulated by a smart contract), and
- cross-border and cross-platform cooperation mechanisms (e.g., what cooperation frameworks are feasible and desirable to overcome challenges that the digital economy faces).⁷²

Specific private international challenges raised by 'digital and crypto currencies' as well as 'DLT and blockchain' are also under consideration by the HCCH as part of this work.⁷³ These issues were included in the programme of the HCCH CODIFI (Commercial, Digital and Financial Law Across Borders) Conference,

⁶⁹ See HCCH, *op. cit.*, note 8; HCCH, *Developments with respect to PIL implications of the digital economy, including DLT*, Preliminary Document No 4 of November 2020, [<https://assets.hcch.net/docs/8bdc7071-c324-4660-96bc-86efba6214f2.pdf>], Accessed 1 February 2023); HCCH, *Developments with respect to PIL Implications of the Digital Economy*, Prel. Doc. No 4 REV of January 2022, [<https://assets.hcch.net/docs/b06c28c5-d183-4d81-a663-f7bdb8f32dac.pdf>], Accessed 1 February 2023; HCCH, *Digital Economy and the HCCH Conference on Commercial, Digital and Financial Law Across Borders (CODIFI Conference): Report*, [<https://assets.hcch.net/docs/a61a1225-2eb0-4fef-8a7e-24ca186b5919.pdf>], Accessed 1 February 2023.

⁷⁰ See HCCH, Prel. Doc. No 4 of November 2020, *ibid.*, pars. 5-7; HCCH Prel. Doc. No 4 REV of January 2022, *ibid.*, pars. 4-7.

⁷¹ See HCCH, *About the HCCH*, [<https://www.hcch.net/en/about>], Accessed 1 February 2023.

⁷² See HCCH, Prel. Doc. No 4 of November 2020, *op. cit.*, note 69, par. 7; Prel. Doc. No 4 REV of January 2022, *op. cit.*, note 69, par. 8. See also Prel. Doc. 28 of February 2020, *op. cit.*, note 69, pars. 9-15.

⁷³ See HCCH, Prel. Doc. No 4 REV of January 2022, *op. cit.*, note 69, pars. 13-17 and 29-31.

successfully held online in September 2022, under the Conference's digital economy thematic tracks.⁷⁴ The outcomes of the CODIFI Conference were published in the conference report in January 2023.⁷⁵ The report referred to the inherent cross-border element of the topics concerned in various parts and accordingly noted that considerations of private international law are crucial.⁷⁶ The report also highlighted, *inter alia*, that various private international law issues identified by experts at the Conference may benefit from potential future work in relation to jurisdiction, applicable law, choice of forum, party autonomy, recognition and enforcement, and international cooperation mechanisms.⁷⁷

Against this background, the Permanent Bureau developed a number of joint initiatives for the consideration of the Council on General Affairs and Policy, one being the Proposal for Joint Work: HCCH-UNIDROIT Project on Law Applicable to Cross-Border Holdings and Transfers of Digital Assets and Tokens.⁷⁸ This proposal built on one of the outcomes of the CODIFI Conference that several experts had agreed that 'work on private international law (PIL) relating to digital assets, specifically the determination of applicable law, is both timely and desirable'.⁷⁹ The proposal's purpose was accordingly 'to examine, jointly with UNIDROIT, the desirability of developing coordinated guidance and the feasibility of a normative framework on the law applicable to cross-border holdings and transfers of digital assets and tokens, covering relevant private law aspects'.⁸⁰ Starting with Principle 5 of the draft UNIDROIT Principles, this joint work was proposed to include:

- 'the applicable law in the absence of an explicit choice of law by the parties;
- weaker party protection in transactions relating to digital assets and tokens;
- connecting factors that would impact on the law applicable to cross-border holdings and transfers of digital assets and tokens; and

⁷⁴ See HCCH, *The HCCH Conference on Commercial, Digital and Financial Law Across Borders (CODIFI)*, [https://www.hcch.net/en/projects/post-convention-projects/hcch-codifi-conference], Accessed 1 February 2023. The videos of the sessions can be viewed at [https://www.youtube.com/playlist?list=PLL-3fQvUXrbUE0D2Oevr8V6AYUXIQ1AD-], Accessed 1 February 2023.

⁷⁵ See HCCH, *Digital Economy and the HCCH Conference on Commercial, Digital and Financial Law Across Borders (CODIFI Conference): Report*, Prel. Doc. No 3A of January 2023, [https://assets.hcch.net/docs/a61a1225-2eb0-4fef-8a7e-24ca186b5919.pdf], Accessed 3 February 2023.

⁷⁶ *Ibid.*, par. 13.

⁷⁷ *Ibid.*, par. 5 and pp. 28-29.

⁷⁸ See HCCH, Prel. Doc. No 3C of January 2023, *Proposal for Joint Work: HCCH-UNIDROIT Project on Law Applicable to Cross-Border Holdings and Transfers of Digital Assets and Tokens*, [https://assets.hcch.net/docs/a91fd233-acf7-4c42-9aad-a426c4565068.pdf], Accessed 1 February 2023.

⁷⁹ *Ibid.*, par. 2.

⁸⁰ *Ibid.*, par. 3.

- the law applicable to linked assets'.⁸¹

The HCCH-UNIDROIT Joint Project on Law Applicable to Cross-Border Holdings and Transfers of Digital Assets and Tokens (HCCH-UNIDROIT Digital Assets and Tokens Joint Project) was approved by the HCCH Council on General Affairs and Policy in March 2023⁸² and by the UNIDROIT Governing Council in May 2023.⁸³ The kick-off meeting of the Joint Project was held in June 2023 and, following a second meeting in autumn 2023, the HCCH Permanent Bureau will report the Council on General Affairs and Policy on the project results, including suggestions on the desirability and feasibility of continuing work on the topic through the establishment of a joint Experts' Group.⁸⁴

As is seen, the HCCH has identified a number of private international law issues in the area, some of them being the core questions of private international law. However, internationality has not been among them although it is key to all the issues identified so far. It is interesting to note that HCCH did consider the question of internationality as part of its work on the law applicable to international credit transfers, which started in 1980s but not resulted in any legal instrument.⁸⁵

4. CONCLUDING REMARKS

Internationality is a fundamental concept in private international law which defines the relevance and applicability of this area of law in a given situation. Although there is no agreement in private international law as to how internationality is to be ascertained for a transaction, relationship or situation and on which criteria, internationality is typically considered as a requirement to be satisfied for a private international law analysis. This suggests that for a cryptocurrency transfer to be subject to a private international law analysis, there needs to be an element which gives the transfer an international character. However, this also gives rise to

⁸¹ *Ibid.*, par. 18.

⁸² See HCCH, *Launch of the HCCH-UNIDROIT Digital Assets and Tokens Joint Project*, [<https://www.hcch.net/en/news-archive/details/?varevent=913>], Accessed 31 July 2023.

⁸³ See further the Project Proposal as presented to the UNIDROIT Governing Council, UNIDROIT, *Item No. 6 on the agenda: Proposal for Joint Work: HCCH-UNIDROIT Project on Law Applicable to Cross-Border Holdings and Transfers of Digital Assets and Tokens*, 2023, [<https://www.unidroit.org/wp-content/uploads/2023/05/C.D.-102-12-Proposal-for-Joint-Work-HCCH-UNIDROIT.pdf>], Accessed 31 July 2023.

⁸⁴ See *Kick-off Meeting of the HCCH-UNIDROIT Digital Assets and Tokens Joint Project*, [<https://www.hcch.net/en/news-archive/details/?varevent=921>], Accessed 31 July 2023.

⁸⁵ HCCH, *Note on the Problem of the Law Applicable to International Credit Transfers*, Preliminary Document No 1 of November 1991, drawn up by Michel Pelichet, pp. 63-65.

the question of if, and how, such an element will be ascertained in cryptocurrency transfers taking place within truly global systems underpinned by DLT.

Given that DLT-based systems have participants located in different jurisdictions and that the ledger in these systems exist potentially in many places in the world as it is distributed across the system participants, there is no doubt that cryptocurrency systems underpinned by DLT ordinarily involve a foreign element. Although this makes a case for an argument that all cryptocurrency transfers within DLT-based systems are international and therefore should be subject to a private international analysis, this may not be always desirable for different reasons. Cryptocurrencies are used in purely domestic situations, as well as international ones, in various contexts and therefore disputes arising from cryptocurrency transfers may not necessarily involve a foreign element beyond the global nature of the systems within which cryptocurrencies are transferred. In addition, private international law is a technical area of law which gives rise to complex questions of the determination of international jurisdiction and applicable law, particularly in relation to novel concepts like cryptocurrencies. It would be therefore a costly and time-consuming exercise to conduct a private international law analysis in all cases arising from cryptocurrency transfers irrespective of the nature of the dispute. These considerations suggest that, for a private international law analysis of cryptocurrency transfers within DLT-based systems, there is therefore a need for a criterion or criteria on the internationality.

However, the criteria, which are traditionally used in private international law and which derive from persons or places/locations concerned, have limited utility in the cryptocurrency context due to the use of DLT, disintermediation and pseudonymity in cryptocurrency systems. In cases where there is some degree of identification of the transacting parties, the test for internationality may be based on the location of the parties if this is known or identifiable, or the internationality of a cryptocurrency transfer may be subject to the internationality of the underlying relationship between the transacting parties. However, this is not an area where specific pre-set and precisely defined criteria or definition of internationality could satisfactorily work given the fast-evolving and developing nature of cryptocurrencies and the difficulties associated with the application of any criterion based on persons or places/locations to cryptocurrencies. Therefore, there needs to be some flexibility in the test of internationality for cryptocurrency transfers in DLT-based systems. Although it is not clear whether the UNIDROIT and the HCCH take a particular approach to internationality in the context of their current projects concerning digital assets and digital economy, including cryptocurrencies, and, if they do, what that approach is, internationality would be key to many questions they have identified to address in the area.

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