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ARTICLES

IN SEARCH OF THE OPTIMAL LAW GOVERNING DIGITAL PAYMENT RIGHTS

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IN SEARCH OF THE OPTIMAL LAW GOVERNING DIGITAL PAYMENT RIGHTS

Marek Dubovec[*]

I. INTRODUCTION

Countless initiatives have emerged to digitize trade and supply chain finance transactions. They initially showed promise but eventually dwindled without much effect.[1] Letters of credit, negotiable instruments, invoices evidencing receivables, and other payment rights power trade, but "paper" dominates the processes. Four billion documents are generated daily to support trade, with a typical transaction averaging about fifty sheets of paper that may be handled by thirty parties.[2] The paper glut is prominent in letter of credit transactions, where the payment right of the beneficiary is triggered upon presentation of dozens of documents to a bank.[3] This is less of a challenge for transactions generating payment rights in the form of receivables and negotiable instruments. Distinct features of these payment rights present peculiar challenges, whether legal, practical, or technological. Legislative solutions to address these challenges vary.

This Article analyzes and contrasts three approaches to the financing of payment rights powering trade: (1) recognizing a digital equivalent of the

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[1] Marco Polo was a blockchain-based trade finance platform developed by a consortium including major banks, such as BNY Mellon, SMBC, ING, and BNP Paribas. In 2023, it filed for insolvency. Sanne Wass, *Trade Finance Industry Remains Hopeful on Blockchain Despite Failed Projects*, S&P GLOBAL (Oct. 27, 2022), https://www.spglobal.com/market-intelligence/en/news-insights/articles/2022/10/trade-finance-industry-remains-hopeful-on-blockchain-despite-failed-projects-72557910.

[2] *Much Ado About Something: Digitalisation's Positive Impact on Trade*, GLOBAL TRADE REV. (July 15, 2024), https://www.gtreview.com/magazine/the-digital-trade-issue-2024/much-ado-about-something-digitalisations-positive-impact-on-trade/; *Digital Trade 101: What You Need to Know*, ICC ACADEMY (Sept. 19, 2024), https://academy.iccwbo.org/digital-trade/article/digital-trade-101-what-you-need-to-know/.

[3] Dave Meynell, *Types of Documentary Credit—A Comprehensive Guide*, ICC ACADEMY (Oct. 21, 2024), https://academy.iccwbo.org/trade-finance/article/types-of-documentary-credit-a-comprehensive-guide/.

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paper document embodying the payment right, (2) relying on an existing framework underpinning accounts receivable finance, and (3) providing for a new digital asset embodying the payment right. Many questions abound. For instance, should the law simply recognize digital equivalents of negotiable instruments as devised for commercial practices of the eighteenth century, or cloak them with new features and functions suitable for the digital economy of the twenty-first century? How should the law governing assignments of receivables, also referred to as accounts, be modernized? Should multiple forms of payment rights that perform the same function be recognized? Legislative approaches must also consider technological aspects of issuing, holding, and transferring digital payment rights, which may be recorded in centralized registries maintained by public authorities or reflected in distributed ledgers maintained by no single entity.

This Article examines the legal aspects of payment rights in the context of trade and supply chain finance, where negotiable instruments and receivables have played a critical role. Although the bank's undertaking in a letter of credit has been issued digitally for years, the digitization of many documents from various parties, including transportation companies, insurers, certifying authorities, and others, poses complex issues.[4] This Article focuses on a narrower issue of digitizing payment rights in isolation from other documents that may be generated in a transaction, thus excluding letters of credit. The question it explores is whether digital equivalents of negotiable instruments, receivables, a new type of payment right tethered to a digital asset, or some combination of these approaches is most suitable to provide legal certainty for emerging financing paradigms, such as deep-tier supply chain finance. In other words, it does not examine whether and how to digitize payment rights in the abstract. Rather, it identifies two paradigms, examines the function of payment rights, and only then formulates a legislative approach.

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[4] *See generally* Alan Davidson, *Electronic Records in Letters of Credit*, U.N. COMM'N ON INT'L TRADE L. [UNCITRAL], https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/uncitral-paper_feb2011-alan-davidson.pdf (discussing the legal and practical difficulties of adapting traditional, paper-based documentary credit systems to electronic commerce); James E. Byrne, *The Four Stages in the Electrification of Letters of Credit*, 3 GEO. MASON J. INT'L COM. L. 253 (2012) (describing the evolution of letters of credit in response to electronic commerce); Samuel P. Baycer, *Updating Standby Letter of Credit Practice for the 21st Century: Modernizing the International Standby Practices for Digital Transactions*, 62 DUQ. L. REV. 407 (2024) (examining reforms to align standby letter of credit practices with modern digital transaction standards).

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Negotiable instruments have a long history and well-developed legal regimes, although these regimes are often criticized as archaic.[5] Financing against receivables emerged later and does not require as complex legal arrangements. The laws governing these types of payment rights have been well defined to avoid overlaps.[6] Emerging technologies enable parties to create new assets that do not neatly fit into these types. Should the existing laws dictate the structure and function of these assets and force parties to figure out how those laws apply? Or should we construct a new legal framework that is flexible enough to allow parties to experiment?

This Article isolates the core elements a law must exhibit to eliminate legal uncertainty and reduce the cost of financing payment rights. These core legal elements of the commercial law framework are rules that: (1) define the specific types of payment rights, (2) provide for an efficient mechanism to transfer payment rights, (3) enable divisibility of payment rights, (4) protect transferees against pre-existing interests, claims and defenses, (5) provide for efficient enforcement mechanisms, and (6) determine the law applicable to third-party effects of transfers of payment rights. Applying these core elements that underpin payment rights in the financing paradigms will yield recommendations as to an enabling legislative approach. It will assist policymakers and legislators to assess whether existing laws are capable of accommodating new types of financing structures, whether legislation (1) on receivables finance is sufficient, (2) should merely recognize a functional digital equivalent of a negotiable instrument, or (3) should embrace a new approach, such as under the Uniform Commercial Code Article 12, which provides for a new asset type of controllable accounts.[7] This is a different methodological approach focused on gearing the legal framework to enable a particular set of transactions—the Product-focused Reform Strategy

[5] *See* BENJAMIN GEVA & SAGI PEARI, INTERNATIONAL NEGOTIABLE INSTRUMENTS 29–59 (2021); Grant Gilmore, *Formalism and the Law of Negotiable Instruments*, 13 CREIGHTON L. REV. 441, 448 (1979–1980). *See generally* JAMES STEVEN ROGERS, THE END OF NEGOTIABLE INSTRUMENTS: BRINGING PAYMENT SYSTEMS LAW OUT OF THE PAST (2011) (arguing that negotiable instruments law is outdated and should be reformed).

[6] *See* U.C.C. § 9-102(a)(2), (47) (AM. L. INST. & UNIF. L. COMM'N 2022) (defining "account" and "instrument").

[7] U.C.C. § 9-102(a)(27A); Henry Deeb Gabriel, *A History of Security Rights in Personal Property from the Pledge to Bitcoin by Way of UNCITRAL's Universalization of Principles*, 50 N.C. J. INT'L L. 203, 255 (2025); Frank Sullivan Jr., *New Law Amends the Uniform Commercial Code to Accommodate Emerging Technologies*, 57 IND. L. REV. 775, 790 (2024).

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(PRS)—from implementing a comprehensive law that governs a variety of transactions.[8]

After this introduction, the Article is structured in five Sections. Section II explains the transactional mechanics and identifies the core features of receivables and negotiable instruments, the relevant international and domestic legal frameworks, and the effect of digitization on practice. Section III examines two financing paradigms of supply chain finance transactions that use a new type of payment rights. Section IV outlines the recently adopted international standards and domestic laws that can be applied to new types of payment rights, dividing them into those that provide for the functional equivalent of a paper instrument and those that provide for a new type of payment right. Section V is the heart of this Article, examining the six core elements in the context of the financing paradigms. It analyzes whether the approaches to digitizing payment rights, examined in the preceding Section, enable these paradigms. Section VI concludes by analyzing the disconnect between practice and laws, suggesting a path forward, building from the core elements of financing paradigms.

II. TRADITIONAL CREDIT PRODUCTS

Payment rights are especially critical to the financing of trade and supply chains. Laws and practices have facilitated the use of these rights for centuries, but recent advances in technology enable parties to devise solutions that challenge their traditional uses as well as the legal frameworks that govern them. This Section explains the fundamental features of receivables and negotiable instruments, the relevant international and domestic frameworks, and the effect of digitalization on practice. Laws have been crafted to enable the use of traditional payment rights with those particular features, which, however, may become an obstacle to innovative solutions made possible by technologies, as will be explored in the following Section.

[8] GIULIANO G. CASTELLANO & MAREK DUBOVEC, GETTING CREDIT: LAW REFORM, TECHNOLOGY, AND MARKET TRANSFORMATION (forthcoming 2026).

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A. Receivables

Open account finance, which relies on receivables, has gained importance over the last few decades, surpassing letters of credit that are more expensive and cumbersome to administer.[9] A receivable arises from a contract where, for instance, an exporter sells goods to an importer who agrees to pay the purchase price in ninety days. The exporter then transfers the receivable to a factor or other financier that pays the exporter ninety percent of the invoice value immediately, collects the receivable in ninety days, retains a percentage, and remits the remainder to the exporter. An exporter may generate receivables from transactions with several parties or be integrated within a supply chain involving multiple business relationships. The factor acquires the receivable by assignment, which generally transfers all defenses and rights of set-off that the importer may have against the exporter.[10] To enhance the transferability of the receivable, the importer may waive those defenses and rights.[11] Receivables may be transferred outright by way of a sale to the factor, or the exporter may create a security interest in them.[12]

International efforts to craft uniform standards facilitating transfers of receivables, particularly in factoring transactions, date back to the 1980s. The 1988 International Institute for the Unification of Private Law (UNIDROIT) Convention on International Factoring has had a muted impact, attracting only nine Contracting States.[13] It has a limited scope of application, defining

[9] Friederike Niepmann & Tim Schmidt-Eisenlohr, *No Guarantees, No Trade: How Banks Affect Export Patterns*, FED. RSRV. BANK OF N.Y. STAFF REP. 659 (2013), https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr659.pdf; Rebecca Fruchtman & Alexander R. Malaket, *The UN Convention on the Assignment of Receivables in International Trade*, MAYER BROWN (May 21, 2020), https://www.mayerbrown.com/-/media/files/perspectives-events/publications/2020/05/the-un-convention-on-the-assignment-of-receivables.pdf.

[10] Marek Dubovec & Megumi Hara, *Factoring Model Law: Advancing Access to Finance and Promoting Financial Inclusion*, *in* THE ELGAR COMPANION TO UNIDROIT 345, 347 (Ben Köhler et al. eds., 2024); Allan F. Conwill & William W. Ellis, Jr., *Much Ado About Nothing: The Real Effect of Amended 60(a) on Accounts Receivable Financing*, 64 HARV. L. REV. 62, 74 (1950).

[11] U.C.C. § 9-403; INT'L INST. FOR THE UNIF. OF PRIV. L. [UNIDROIT], *UNIDROIT Model Law on Factoring*, arts. 27–28 (2023), https://www.unidroit.org/wp-content/uploads/2024/08/UNIDROIT-Model-Law-on-Factoring-Modification-2024-for-website.pdf [hereinafter *UNIDROIT Model Law on Factoring*].

[12] *UNIDROIT Model Law on Factoring*, *supra* note 11, art. 2 (defining "transfer" and "security transfer").

[13] *Status: UNIDROIT Convention on International Factoring (Ottawa 88)*, UNIDROIT, https://www.unidroit.org/instruments/factoring/convention/status.

"factorable" receivables narrowly to cover those arising from a contract for the sale of goods or provision of services, not dealing with issues of third-party effectiveness and priorities, and even permitting parties to wholly contract out of its application.[14] Its successor, the 2001 United Nations Convention on the Assignment of Receivables in International Trade, has not entered into force, attracting only two ratifications by Liberia and the United States.[15] It has a broad scope, identifying the assignments of receivables it does not apply to in Article 4, such as those arising from financial contracts, dealing with issues of conflict of laws, and providing guidance on the framework to govern priorities.[16] Finally, the 2023 UNIDROIT Model Law on Factoring represents the most suitable standard to modernize receivables finance frameworks, providing comprehensive guidance on proprietary issues, such as perfection and priorities, as well as conflict of laws.[17] The Model Law expanded the list of factorable receivables to add those arising from transactions with intellectual property and data, as defined in Article 2.[18] In many jurisdictions, including under the Uniform Commercial Code (U.C.C.) Article 9, transfers of receivables are governed by the general secured transactions law that applies to security rights in all types of personal property.[19] However, an increasing number of jurisdictions have been enacting special laws on factoring that deal only with transfers of receivables.[20]

How are the six core elements of the law governing transfers of receivables structured? First, these laws precisely define receivables to distinguish them from other payment rights, deferring to specialized legal regimes, such as those governing negotiable instruments.[21] Second, the law clearly defines the requirements to make a transfer effective against third

[14] Dubovec & Hara, *supra* note 10, at 347.

[15] *Status: United Nations Convention on the Assignment of Receivables in International Trade*, UNCITRAL, https://uncitral.un.org/en/texts/securityinterests/conventions/receivables/status.

[16] *Id.*

[17] Giuliano G. Castellano & Marek Dubovec, *UNIDROIT Access to Credit Instruments*, *in* THE ELGAR COMPANION TO UNIDROIT 249, 255 (Ben Köhler et al. eds., 2024).

[18] *UNIDROIT Model Law on Factoring*, *supra* note 11, art. 2.

[19] UNCITRAL, UNCITRAL MODEL LAW ON SECURED TRANSACTIONS, at art. 1(2), U.N. Sales No. E.17.V.1 (2019), https://uncitral.un.org/sites/uncitral.un.org/ files/media-documents/uncitral/en/19-08779_e_ebook.pdf [hereinafter UNCITRAL MODEL LAW ON SECURED TRANSACTIONS].

[20] *See* CASTELLANO & DUBOVEC, *supra* note 8; *New Factoring Rules: What Law No. 4466-IX Provides For*, GOLAW (Oct. 15, 2025), https://golaw.ua/insights/news/novi-pravila-faktoringu-shho-peredbachaye-zakon-4466/.

[21] U.C.C. § 9-102(a)(2), (47), (51) (defining "account," "instrument," and "letter-of-credit right").

parties, which is typically achieved by registration in a centralized, either collateral or factoring, registry.[22] Third, a receivable may be transferred partially, but laws provide for certain protections for debtors whose costs may increase as a result of splitting their payment obligations.[23] Fourth, the law governing transfers of receivables provides for transfers of receivables by an assignment, which does not allow the transferee to acquire greater rights than the transferor.[24] However, the ability to waive defenses and rights of set-off cloaks the receivable with a high degree of transferability.[25] Fifth, payment rights in the form of receivables may be collected extrajudicially or disposed of.[26] Finally, most secured transactions and factoring laws include a conflict of laws rule that determines the law applicable to third-party effectiveness and priority by the location of the transferor.[27]

B. Negotiable Instruments

Negotiable instruments support various supply chain finance techniques, including forfaiting, which is a type of export finance where the exporter sells a negotiable instrument representing a right to collect the payment from the importer to a financier.[28] A negotiable instrument may be issued by the buyer in the form of a promissory note or by the seller who requests the buyer to accept a bill of exchange, also referred to as a draft.[29] Forfaiting gained popularity in the 1960s with the growth of international trade.[30] A financier acquires the right to collect payment from the importer and typically requires a guarantee by the importer's bank.[31] Negotiable instruments are also used in letter of credit transactions, where the exporter may access finance by discounting an accepted draft.[32] The instrument reifies

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[22] *See UNIDROIT Model Law on Factoring*, *supra* note 11, art. 9; U.C.C. § 9-310(a).
[23] *See UNIDROIT Model Law on Factoring*, *supra* note 11, art. 26(6); U.C.C. § 9-406(b)(3).
[24] *See UNIDROIT Model Law on Factoring*, *supra* note 11, art. 2(g)(ii); U.C.C. § 9-404.
[25] *See UNIDROIT Model Law on Factoring*, *supra* note 11, art. 28; U.C.C. § 9-403.
[26] *UNIDROIT Model Law on Factoring*, *supra* note 11, arts. 33–34.
[27] *See* UNCITRAL MODEL LAW ON SECURED TRANSACTIONS, *supra* note 19, art. 86; *UNIDROIT Model Law on Factoring*, *supra* note 11, art. 37; U.C.C. § 9-301(a).
[28] Edmond Tavernier, *Legal Aspects of Forfaiting*, 11 INT'L BUS. LAW. 25, 25 (1983).
[29] *Id.* at 31.
[30] *Id.* at 25.
[31] *Id.* at 28.
[32] Ebenezer Adobo, *Establishing Purchase of Documents Under a Negotiation Letter of Credit*, 2 SING. J. LEGAL STUD. 618, 638 (2009).

the obligation of an importer to pay a certain sum of money. In other words, the instrument becomes the indispensable embodiment of the obligation it represents.[33] Thus, there cannot be a receivable when the right to payment is evidenced by an instrument such as a promissory note.[34] Negotiable instruments are abstract and unconditional payment rights. Laws that govern transfers and the collection of the instrument typically require endorsement and delivery.[35] They may be transferred by negotiation, which confers a protected status of a holder in due course on the transferee who becomes immune from many pre-existing defenses and rights.[36]

Negotiable instruments offer several benefits over receivables, incentivizing the financier to extend greater funding rates. For instance, a person obligated on the instrument must pay the amount stated therein, irrespective of any disputes between the seller and buyer concerning the quality of goods that may dilute the obligation to pay the underlying receivable.[37] The invoice terms do not preclude late payment of receivables, without a penalty, if the payment is settled within the contractual buffer period, while negotiable instruments have a fixed maturity date.[38] A financier typically takes the steps to acquire the status of the holder in due course, which is immune from proprietary claims and personal defenses, many of which remain enforceable against an assignee of receivables.[39]

Negotiable instruments have been governed by a patchwork of international treaties, customs, and practices as well as domestic laws that guide transacting parties. Generally, checks have been dealt with in different laws than the other two main types of negotiable instruments—bills of exchange and promissory notes. In the 1930s, two international treaties of continuing significance were adopted—the 1930 Convention Providing a Uniform Law for Bills of Exchange and Promissory Notes and the 1933 Convention Providing a Uniform Law for Cheques.[40] The Conventions have been influential, particularly in Continental Europe, Japan, and Latin

[33] ROGERS, *supra* note 5, at 45.

[34] Robert Charles Clark, *Abstract Rights Versus Paper Rights Under Article 9 of the Uniform Commercial Code*, 84 YALE L.J. 445, 446, 452 (1975).

[35] U.C.C. § 3-201.

[36] *Id.* §§ 3-201, 3-202, 3-205.

[37] *Id.* § 3-302.

[38] Eric Marcus, *Bringing Drafts into the Digital Age*, 49 U.C.C. L.J. 373, 378 (2020).

[39] *See infra,* Part V, Section D.

[40] Convention Providing a Uniform Law for Bills of Exchange and Promissory Notes, June 7, 1930, 143 L.N.T.S. 257; Convention Providing a Uniform Law for Cheques, Mar. 19, 1931, 143 L.N.T.S. 355.

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America. The other system of negotiable instruments laws is based on the 1882 British Bill of Exchange Act and the United States U.C.C. Article 3.[41] The final international effort at unification was completed in 1988 with the adoption of the United Nations Convention on International Bills of Exchange and International Promissory Notes.[42] Uniform Rules for Forfaiting (URF800), developed jointly by the International Chamber of Commerce and the International Forfaiting Association, contained various standard provisions that may be incorporated into contracts, mitigating several risks.[43] URF800 is not a set of binding rules, unlike the Conventions. The early domestic codification efforts were traced to the seventeenth century in Continental Europe.[44] Contemporary secured transaction laws provide for the rules enabling the creation and perfection of security interests in negotiable instruments or instruments in general.[45]

How are the six core elements of the negotiable instruments law structured? First, negotiable instruments laws have clearly defined the types of payment rights that would qualify as negotiable instruments, and set out the requirements, including unconditionality, that must be strictly met.[46] Second, laws set out the requirements to effectuate a transfer of an instrument that typically requires delivery and, where the instrument is issued to order, also an endorsement.[47] Third, a negotiable instrument is not divisible; the holder may not transfer a right to collect partial payment, and the issuer will pay the full amount only upon presentation of the instrument.[48] The transferee may acquire the rights of a partial assignee under a law other than the negotiable instruments law.[49] Fourth, negotiable instruments laws have for

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[41] Harold S. White, *The United Nations Convention on International Bills of Exchange and International Promissory Notes: A Comparison to the Uniform Commercial Code*, 5 GA. J. INT'L & COMPAR. L. 216, 216 (1975).

[42] *See* G.A. Res. 43/165 (Dec. 9, 1988). *See generally* D.E. Murray, *The U.N. Convention on International Bills of Exchange and International Promissory Notes with Some Comparisons with the Former and Revised Article Three of the UCC*, 25 U. MIA. INTER-AMERICAN L. REV. 189 (1994) (discussing the U.N. Convention on International Bills of Exchange and International Promissory Notes).

[43] *See* INTERNATIONAL CHAMBER OF COMMERCE [ICC], UNIFORM RULES FOR FORFAITING (URF800): INCLUDING MODEL AGREEMENTS 7–8 (2012).

[44] GEVA & PEARI, *supra* note 5, at 13.

[45] U.C.C. § 9-312.

[46] *Id.* § 3-104(a).

[47] *See id.* § 3-203.

[48] *See id.* § 3-203(d).

[49] *Id.* § 3-203(d) (stating that if a transferor purports to transfer less than the entire instrument, negotiation of the instrument does not occur).

centuries granted a special status of holders in due course to transferees who may acquire the instrument free of competing claims and defenses.[50] Fifth, the holder in due course status allows the financier to enforce the payment obligation of the obligor extrajudicially.[51] Instruments taken as collateral may also be disposed of. Finally, the question of law governing the proprietary effect of transfers has been traditionally connected to the location of the paper instrument.[52]

This Section has illustrated two diverging trajectories. On the one hand, we have witnessed continuous efforts to modernize receivables finance frameworks, particularly in recognition of the growing role of supply chain finance and factoring. Notably, the UNIDROIT Model Law on Factoring provides a solid footing for various receivables finance products.[53] On the other hand, several commentators have called for the abolition of the law of negotiable instruments, as it was conceived to address the needs of the eighteenth-century economy.[54] Rogers observed that "[t]he law of negotiable instruments developed centuries ago when instruments issued by private parties circulated as a form of money . . . . [M]uch of the current law of checks and notes is the product of nothing more than a historical fluke."[55] The transactions that spawned the law of negotiable instruments are different from those of today.[56]

III. EMERGING DIGITAL FINANCE PARADIGMS

This Section presents two digital finance paradigms that illustrate the impact of modern technologies. It outlines the transactional parameters of these paradigms that use new types of payment rights—irrevocable payment undertaking and digital trade token—to assess whether the legal framework for receivables or negotiable instruments would be suitable to provide certainty and predictability, or whether a different legislative solution should be considered.

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[50] *Id.* § 3-302 (specifying the requirements for a person to become a holder in due course).
[51] *See id.* § 3-305(b).
[52] UNCITRAL MODEL LAW ON SECURED TRANSACTIONS, *supra* note 19, art. 85(1).
[53] *See UNIDROIT Model Law on Factoring*, *supra* note 11.
[54] Neil B. Cohen, *The Calamitous Law of Notes*, 68 OHIO ST. L.J. 161, 161–62 (2007); ROGERS, *supra* note 5, at xiii-xxi.
[55] ROGERS, *supra* note 5, at xiv.
[56] Gilmore, *supra* note 5, at 446–47.

Deep-tier supply chain finance (DTSCF) is a credit product designed to facilitate financing to suppliers at lower tiers within a supply chain, especially small- and medium-sized enterprises (SMEs).[57] In a typical supply chain, the anchor buyer—the large corporation at the top—directly undertakes to pay Tier 1 suppliers, who in turn pay Tier 2 suppliers, and so on. DTSCF enables suppliers at these lower tiers (Tier 2, Tier 3, and beyond) to access financing by leveraging the strong credit profile of the anchor buyer.[58] The information on SMEs generated within these structures, especially on their timely performance, enhances their creditworthiness from the banks' perspective.[59]

A typical DTSCF may proceed as follows. A major retailer orders T-shirts from a garment factory located in another jurisdiction with low labor costs and issues an irrevocable payment undertaking (IPU). The garment factory buys fabric from a cotton mill in the same jurisdiction. The cotton mill sources raw cotton from growers located in various jurisdictions. Payments in these transactions are settled sixty to ninety days after delivery. The garment factory should be easily able to obtain credit on the strength of the payment obligation of the retailer. The risk of nonpayment is low. However, at the tail end, the growers might have difficulties accessing credit because their counterparty is not nearly as creditworthy as the retailer.

Project Dynamo is the result of a collaboration between the BIS Innovation Hub and Linklogis.[60] It aims to address the growing trade finance gap of SMEs by leveraging blockchain technology and programmable digital tokens.[61] The project constructed a prototype platform where an anchor buyer and multiple tiers of suppliers use Digital Trade Tokens (DTTs).[62] DTTs could be issued either by a finance technology company like Linklogis or a licensed bank, based on the anchor buyer's request and backed by equivalent

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[57] SUNIL MASCARENHAS ET AL., ASIAN DEV. BANK [ADB], DEEP-TIER SUPPLY CHAIN FINANCE (2022), https://www.adb.org/sites/default/files/publication/828506/adb-brief-219-deep-tier-supply-chain-finance.pdf; ANGELIA CHIA ET AL., ADB & BANKERS ASS'N FOR FIN. AND TRADE, DEEP-TIER SUPPLY CHAIN FINANCE: UNLOCKING THE POTENTIAL (2024), https://www.adb.org/sites/default/files/publication/967286/deep-tier-supply-chain-finance-unlocking-potential.pdf.

[58] CHIA ET AL., *supra* note 57, at 4.

[59] *Id.*

[60] BANK FOR INT'L SETTLEMENTS [BIS] INNOVATION HUB, PROJECT DYNAMO: CATALYSING INNOVATION FOR SME GROWTH 5 (2023), https://www.bis.org/publ/othp68.pdf.

[61] *Id.* at 4.

[62] *Id.*

fiat currency held in a segregated account.[63] The payment of DTTs may be programmed with specific conditions, validated by smart contracts, such as the successful delivery of goods. As in the DTSCF paradigm, the DTT could also be programmed to trigger payments only on the satisfaction of certain Environmental, Social, and Governance (ESG) conditions.[64] DTTs may be transferred partially to suppliers along the tiers or used as collateral for financing.

Examining the process and relationships in these two paradigms uncovers the relevant legal issues that the law should address. Unlike in a typical sale transaction, under which the retailer commits to pay only its immediate counterparty (e.g., Tier-1 supplier), in these paradigms, either the retailer or a third party issues a digital record that evidences a payment right. The IPU and DTT are business concepts that need to be mapped to a legal category under the applicable domestic law. Thus, they may be classified as a receivable, a negotiable instrument, or a new asset class, such as a digital token. They are not a letter of credit or other independent undertaking, as they are not payable against the presentation of some documents. Furthermore, they may be triggered upon satisfaction of certain conditions, which do not require documentary proof, which is an anathema to the letter of credit law. As goods and invoices move up the supply chain and orders and payments flow down, the payment rights can be divided and transferred downstream to lower-tier suppliers or other participants.[65] This allows such parties to access credit based on the issuer's credit risk, whether a retailer issuing the IPU or a finance technology company issuing the DTT. In the case of the DTT, the holder may even have rights to the fiat currency held in a segregated account.[66] This arrangement benefits all stakeholders. For retailers, these structures enhance supply chain resilience, transparency, and, if embedded, ESG compliance by providing visibility into deeper supply chain layers. Participants benefit from improved cash flow and access to affordable finance. Financiers gain new business opportunities and better risk mitigation.[67]

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[63] *Id.* at 10.
[64] *Id.* at 28.
[65] *Id.*
[66] *Id.* at 8.
[67] *Id.* at 5, 39, 41.

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An effective deployment of the IPU and DTT requires a particular legal, technological, and operational infrastructure that must enable the transfer, including partial transfers, of payment rights across multiple jurisdictions. The technology must enable the secure transfer and tracking of payment rights, data access, and support compliance with ESG and regulatory requirements.[68] Operationally, onboarding participants—many of whom lack advanced technology or resources—requires significant collaboration and technological investment. These operational aspects are executed through a platform that brings together the participants. The remainder of this Article examines the legal infrastructure.

IV. LAWS GOVERNING DIGITAL PAYMENT RIGHTS

This Section outlines the different legal solutions governing payment rights incorporated in digital records. Payment rights may be reified in a variety of records, including digital negotiable instruments, invoices, registered claims, or tokens.[69] As a result of reification, the digital record becomes indispensable to transferring and enforcing the payment right.[70] The reification doctrine dictates that the only way to acquire rights incorporated in paper or a digital record is by acquiring the paper or digital record itself. Possession of the paper or control over the digital record is also the condition for perfecting security interests.[71] This Section first examines the functional equivalence approach underpinning international standards and domestic laws, including the UNCITRAL Model Law on Electronic Transferable Records (MLETR), and Costa Rican, Singaporean, and U.K. laws, which digitalize traditional paper documents that reify payment rights. Then, it examines the approach of several Latin American jurisdictions that cloaked invoices with negotiability features. Finally, this Section analyzes the approach in jurisdictions that enacted laws that provided for a new type of digital payment right, primarily in recognition of the limitations of existing laws in dealing with receivables and negotiable instruments. This approach

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[68] *Id.* at 41.

[69] Reification has also been known as the doctrine of merger. *See* Gilmore, *supra* note 5, at 449.

[70] *See* Adam J. Levitin, *The Paper Chase: Securitization, Foreclosure, and the Uncertainty of Mortgage Title*, 63 DUKE L.J. 637, 662 (2013) (outlining the effect of reification).

[71] Steven L. Harris & Charles W. Mooney, Jr., *Using First Principles of UCC Article 9 to Solve Statutory Puzzles in Receivables Financing*, 46 GONZ. L. REV. 297, 330 (2011).

has been followed under the UNIDROIT Principles on Digital Assets and Private Law (DAPL), as well as Japanese and U.S. laws.

A. Digital Equivalents of Traditional "Paper-based Payment Rights"

Payment rights have been historically reified in paper negotiable instruments. Since the legal concepts for paper instruments have been developed over centuries, giving legal effect to digital equivalents should entail a straightforward process; simply putting paper and digital instruments on an equal legal footing, and, thus, leveraging the existing body of law to govern digital instruments. This Subsection illustrates that approach on two types of digital records that reify payment rights: (i) electronic transferable records and (ii) electronic invoices.

UNCITRAL adopted the MLETR in 2017 to validate electronic transferable records, including bills of exchange, bills of lading, and promissory notes that are functional equivalents of their paper counterparts.[72] The main objective of the MLETR is to facilitate seamless paperless trade across borders.[73] It has been endorsed by the G7.[74] The WTO Agreement on Electronic Commerce identifies "electronic transactions framework" in Article 4(2) as one of the core areas, encouraging States to recognize electronic transferable records, such as bills of lading, bills of exchange, and promissory notes.[75] Trade agreements even specifically reference MLETR, urging the parties to those agreements to implement the framework.[76]

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[72] Henry D. Gabriel, *The UNCITRAL Model Law on Electronic Transferable Records Law: Streamlining Monetary Payments and the Transfer of Goods Through E-Commerce*, 24 UNIF. L. REV. 261, 261 (2019); Giusella Finocchiaro & Luca Castellani, *The UNCITRAL Model Law on Electronic Transferable Records: Introduction and Overview*, 31 EUR. REV. PRIV. L. 955, 955 (2023).

[73] UNCITRAL, UNCITRAL MODEL LAW ON ELECTRONIC TRANSFERABLE RECORDS, U.N. Sales No. E.17.V.5 (2018), https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/mletr_ebook_e.pdf [hereinafter UNCITRAL MLETR].

[74] *See* DEP'T FOR SCI., INNOVATION AND TECHN. ET AL., G7 DIGITAL AND TECHNOLOGY TRACK—ANNEX 4: FRAMEWORK FOR G7 COLLABORATION ON ELECTRONIC TRANSFERABLE RECORDS (2021), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/986162/Annex_4__Framework_for_G7_collaboration_on_Electronic_Transferable_Records.pdf.

[75] *See* WORLD TRADE ORG. [WTO], INFORMATION ON THE AGREEMENT ON ELECTRONIC COMMERCE 8 (2024), https://www.wto.org/english/tratop_e/ecom_e/information_on_agreement_ecom.pdf.

[76] ASIA-PACIFIC ECON. COOP. [APEC] COMM. ON TRADE AND INV., A PATH TO PAPERLESS TRADE: ANALYSING THE LEGAL GAPS AND ECONOMIC BENEFIT OF ADOPTING OR MAINTAINING A LEGAL FRAMEWORK THAT TAKES INTO ACCOUNT THE UNCITRAL MODEL LAW ON ELECTRONIC

MLETR does not determine which documents and instruments are transferable, leaving this to enacting States.[77]

MLETR reflects "the principle of technological neutrality and a functional equivalence approach" that "enable[s] the use of . . . registry, token, distributed ledger and other technology."[78] It is underpinned by three foundational principles of functional equivalence, technology neutrality, and non-discrimination.[79] Article 10 sets out the requirements for an electronic record to qualify as an "electronic transferable record."[80] It must (i) contain all information required for a paper transferable document/instrument, (ii) deploy a reliable method to identify the record as an electronic transferable record, (iii) render the record subject to exclusive control through a reliable method and retain the integrity of the record.[81] Article 11 provides for control as the functional equivalent of possession.[82] It does not prescribe a specific technology or method for parties to demonstrate that control exists.

Several jurisdictions fully or partially implemented the MLETR, including Costa Rica, Singapore, and the U.K.[83] In February 2021, Singapore amended its Electronic Transactions Act of 2010 to implement the MLETR by removing transferable documents from the list of exclusions to which the Act does not apply.[84] Costa Rica's Law on Electronic Bills of Exchange and Promissory Notes, enacted in December 2021, ensures that electronic bills of exchange and promissory notes have the same legal effect as their paper

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TRANSFERABLE RECORDS (MLETR) 25 (2025), https://apec.org/docs/default-source/publications/2025/2/225_cti_paperless-trade.pdf. Currently, the four trade agreements involving APEC economies are: the Australia-Singapore Digital Economy Agreement (2020), the Digital Economy Partnership Agreement (2020), the Singapore-United Kingdom Digital Economy Agreement (2022), the Korea-Singapore Digital Partnership Agreement (2023). *Id.* at 21.

[77] *See* UNCITRAL MLETR, *supra* note 73, art. 10.

[78] *Id*. at 23. For further information, see Charles W. Mooney, Jr., *FinTech and Secured Transactions Systems of the Future*, 81 L. & CONTEMP. PROBS. 1, 7–8 (2018); Joshua Fairfield & Niloufer Selvadurai, *Governing the Interface Between Natural and Formal Language in Smart Contracts*, 27 UCLA J.L. & TECH. 79, 108 (2022).

[79] *See* UNCITRAL MLETR, *supra* note 73, at 29.

[80] *Id.* art. 10.

[81] *Id.*

[82] *Id.* art. 11.

[83] For the MLETR tracker of implementation, see *MLETR Tracker*, ECON. & SOC. COMM'N FOR ASIA & THE PAC. [ESCAP], https://www.digitalizetrade.org/mletr (last visited Feb. 14, 2026).

[84] Časlav Pejović & Unho Lee, *Towards Global Legal Recognition of Electronic Trade Documents: Control or Possession?*, 59 TEX. INT'L L.J. 101, 102–04 (2024).

counterparts.[85] The law empowers the Superintendency for Securities (SUGEVAL) to authorize private and public registries to record transfers.[86] Like the Costa Rican and Singaporean laws, the U.K.'s Electronic Trade Documents Act of 2023 does not create a new type of asset—electronic trade document—that embodies the right to payment or delivery of goods.[87] It is not an asset subject to its unique legal principles, but rather a functional equivalent of their paper counterparts. These laws do not contain conflict-of-laws rules.

IPUs and DTTs may be coded to include various conditions that trigger the payment, such as proof that goods have been delivered or ESG. The coding of such conditions into these payment rights may render the law of negotiable instruments inapplicable, given the strict requirements payment rights must satisfy to qualify as negotiable instruments.

Several jurisdictions in Latin America have adopted an approach somewhat different from the MLETR, yet they achieve a functionally similar outcome of digitizing payment rights. Over the last decade, they have enacted laws to mandate e-invoicing.[88] These interventions were aimed mainly to combat fraud and enhance tax compliance. Normally, an invoice does not reify the underlying payment rights and serves merely as a record evidencing the purchase price. Accordingly, the MLETR implementation would not apply to such invoices as they are not transferable. However, these Latin American jurisdictions outfitted invoices with features that made them negotiable.[89]

In 2010, Peru enacted Law No. 29623 to facilitate financing and liquidity for businesses, especially micro and small enterprises, by enabling

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[85] Ley No. 10069 [Law No. 10069], Ley sobre letra de cambio y pagaré electrónicos [Law on Electronic Bills of Exchange and Promissory Notes], diciembre 2021, DIARIO OFICIAL LA GACETA (Costa Rica); *see also* Arianne Silva, *Bills of Exchange and Electronic Promissory Notes in Costa Rica*, ARIAS (Dec. 2023), https://ariaslaw.com/detailNew/1139/3/bills-of-exchange-and-electronic-promissory-notes-in-costa-rica#page=1.

[86] Ley No. 10069, *supra* note 85; Silva, *supra* note 85.

[87] Electronic Trade Documents Act 2023, c. 38 (U.K.).

[88] Alberto Barreix & Raul Zambrano, *Electronic Invoicing in Latin America*, INTER-AMERICAN CTR. OF TAX ADMINS. [CIAT] (Mar. 21, 2018), https://www.ciat.org/electronic-invoicing-in-latin-america/?lang=en; Klaudia Krzysztowska, *LATAM Countries as Leaders in Development of Clearance Model*, THE GLOB. TREASURER (Dec. 29, 2019), https://www.theglobaltreasurer.com/2019/12/19/latam-countries-as-leaders-in-development-of-clearance-model/.

[89] Barreix & Zambrano, *supra* note 88; Krzysztowska, *supra* note 88.

them to use their commercial invoices as collateral or to sell them.[90] Similarly, Colombia cloaked invoices with the features of negotiable instruments (*factura negociable*).[91] Under these laws, an invoice is classified as a negotiable instrument (*título valor*), similar to a promissory note.[92] An invoice may be transferred to third parties through endorsement, thereby enabling the transfer of payment rights embedded therein.[93] When a business sells goods or services on credit (e.g., payment due in sixty days), the resulting invoice can be converted into a *factura negociable*. Initially, the negotiable invoice was the third copy of a printed commercial invoice. With the shift to electronic invoicing, negotiable invoices are now registered electronically via a centralized registry, such as the Peruvian Institution for Clearing and Settlement of Securities (CAVALI). For an electronic invoice to become a *factura negociable*, it must be registered in this system, and the buyer must be notified of its registration.[94] The buyer (debtor) has a statutorily prescribed period, eight days in Peru, to accept or object to the creation of the negotiable invoice; their lack of response is presumed to be acceptance.[95] Once the buyer's acceptance is obtained, the *factura negociable* acquires the executive title status, meaning it can be enforced expeditiously in court if not paid.[96] Negotiable invoices may be classified as securities, as a result of which the securities legislation applies to them. Accordingly, this approach differs from the MLETR in that it legislates for digital equivalents of transferable documents for tax evasion and fraud reduction purposes and imposes the application of the securities holding infrastructure and legal framework. Like their MLETR counterparts, these laws do not contain conflict-of-laws rules.

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[90] *See* Daniel Echaiz Moreno, *La factura negociable: a propósito de su reciente creación en el Perú [Negotiable Invoice: About Its Recent Legal Creation in Perú]*, 11 REVISTA VIA IURIS 37, 38 (2011).

[91] L. 1231, julio 17, 2008, DIARIO OFICIAL [D.O] (Colom.). *See also* Óscar Giampiero Polo Serrano, *La factura como título valor electrónico en Colombia [The Invoice as an Electronic Negotiable Instrument in Colombia]*, 23 REVISTA E-MERCATORIA 105, 121 (2024).

[92] L. 1231, *supra* note 91, art. 5 (providing that the provisions of the Commercial Code governing bills of exchange will apply to invoices).

[93] *Id.* at art. 6.

[94] L. 1074, mayo 26, 2015, DIARIO OFICIAL [D.O] (Colom.).

[95] Ley No. 29623 [Law No. 29623], Ley que promueve el financiamiento a través de la factura comercial [Law Promoting Financing Through Commercial Invoices], diciembre 7, 2010, DIARIO OFICIAL EL PERUANO, art. 7 (Peru).

[96] *Id.* at art. 6.

B. New Types of Payment Rights

An alternative to the functional equivalence approach is for a State to legislate for a new asset type that does not have a paper equivalent. States may follow this approach, especially when the existing law is inadequate to support modern financing practices. As explained above, the law of negotiable instruments was developed centuries ago for different types of transactions and practices. The U.S. law was called "a museum of antiquities" decades ago,[97] so it might not be practicable to digitize it. This Subsection examines the initiatives in Japan, the United States, and at UNIDROIT.[98]

In 2007, Japan enacted a law to recognize a new asset type of electronically recorded monetary claims.[99] The law addressed the practical challenges Japanese businesses faced in accessing finance against their receivables. At that time, they could either assign receivables or pledge a negotiable instrument that reified the payment right.[100] For assignments, the Civil Code did not minimize the risk of double assignments of the same receivable, preserved personal defenses of the debtor, and required notification of the debtor (or its approval of the assignment), thus increasing the cost of accessing finance.[101] The issuance and transfer of negotiable instruments, under the Bills of Exchange Act, entailed a high cost of preparing paper documents, their custody, risk of loss or theft, and the inability to transfer a fractional right to payment.[102] The implementation of MLETR would perpetuate at least one of the identified problems.

Thus, the Electronically Recorded Monetary Claims Act (Act No. 102 of 2007) created a new digital asset—electronically recorded monetary

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[97] Gilmore, *supra* note 5, at 446–47.

[98] Another example is the 2021 amendments to the Swiss Code of Obligations that provided a private law framework for tokens registered on a blockchain that may be used for rights traditionally reified in negotiable instruments.

[99] Denshi kiroku saiken-hō [Electronically Recorded Monetary Claims Act], Law No. 102 of 2007, art. 1 (Japan), *translated in* (Japanese Law Translation Data System [JLTDS]), https://www.japaneselawtranslation.go.jp/en (Japan) [hereinafter Electronically Recorded Monetary Claims Act (Japan)]; Mooney, *supra* note 78, at 6–7.

[100] FINANCIAL SERVICES AGENCY (JAPAN) & MINISTRY OF JUSTICE (JAPAN), ELECTRONICALLY RECORDED MONETARY CLAIMS: A NEW FINANCIAL MEANS FOR RAISING BUSINESS FUNDS (n.d.), https://www.fsa.go.jp/ordinary/densi02-en.pdf.

[101] *Id.*

[102] *Id.*

claim—that eliminates these shortcomings.[103] The law provided for a registry to record evidence of existence and assignments of claims, including those made in security.[104] Entities must be authorized to operate a registry by the Ministry of Justice or the Financial Services Agency.[105] The legal framework is quite comprehensive, dealing also with the payment and discharge of claims.[106] Some of the objectives for pursuing this reform approach included enhancing the transferability of receivables, fostering a secondary market, and rationalizing loan administration.[107] Electronically recorded monetary claims may be transferred through a registry, and their transferees acquire rights free of competing claims and defenses. The law does not include a conflict of laws provision that would determine which law applies. Presumably, upon registration of a claim in the registry, the Electronically Recorded Monetary Claims Act will become applicable to any proprietary aspects.

The 2022 Amendments to the U.S. Uniform Commercial Code (U.C.C.) added Article 12 which governs controllable electronic records (CERs).[108] It thus recognizes a new asset type, which captures digital records that do not have a paper equivalent. U.C.C. Article 12 applies to electronic records rather than any rights that may be evidenced by records with two exceptions—controllable accounts and controllable payment intangibles.[109] U.C.C. § 9-102(a)(27A) defines "controllable account" as an account evidenced by a controllable electronic record that provides that the account debtor undertakes to pay the person who has control of the CERs under Section 12-105.[110] An undertaking must be made by the account debtor in favor of a

[103] NIHON GINKŌ & KIN'YŪ KENKYŪJO, FUNCTIONS AND OPERATIONS OF THE BANK OF JAPAN 77 (Institute for Monetary and Economic Studies & Bank of Japan eds., 2d ed. 2012); Manuel Alba, *Transferability in the Electronic Space at a Crossroads: Is it Really About the Document?*, 5 CREIGHTON INT'L & COMPAR. L.J. 1, 11 (2013).

[104] Electronically Recorded Monetary Claims Act (Japan), *supra* note 99, art. 3.

[105] *Id.* arts. 91, 92.

[106] Mooney, *supra* note 78, at 6–7.

[107] Ken Katayama, *Electronic Claims: A Japanese Financial Innovation*, 33 LAKYARA 1, 2 (2008).

[108] Andrea Tosato et al., *Debt Tokens*, 173 U. PA. L. REV. 1103, 1150–59 (2025); Ran Xi, *On Emerging Technologies: The Old Regime and the Proactivity*, 8 CARDOZO INT'L & COMPAR. L. REV. 75, 103 (2025); Gabriel, *supra* note 7, at 254–55.

[109] *See* U.C.C. § 12-104.

[110] *Id.* §§ 9-102(a)(27A), 12-105.

person in control rather than an identified person.[111] CER is defined in U.C.C. § 12-102(a)(1) to exclude a controllable account.[112]

A security interest may be perfected either by filing in the U.C.C. filing system or control, but the latter is the superior method of perfection. A qualifying purchaser, a protected status drawn from U.C.C. § 3-302 that defines the holder in due course of a negotiable instrument, of a controllable account, may take free of conflicting claims, similarly to the holder of a negotiable instrument under U.C.C. § 3-306.[113] U.C.C. § 12-106 deals with the discharge of an account debtor by paying a person currently in control or one who had control previously, provided that the account debtor has not received a notification of transfer that satisfies the requirements in Paragraph (b).[114] This differs from the discharge of a maker of a negotiable instrument, who generally pays to the person in possession of the instrument.[115] Discharge of account debtors on controllable accounts is more closely aligned with the rules on the discharge of account debtors on accounts receivable.[116] An effective notification may be provided through a control system in which the account debtor agrees to participate.[117]

The local law of the controllable account's jurisdiction, determined under U.C.C. § 12-107, governs matters such as the perfection and priority of a security interest.[118] That law may be selected by an express provision in the record or in the system in which the CER is recorded, which must be made readily available for review.[119] That law may also govern the discharge of account debtors as well as the effectiveness of a notification of transfer, but the parties may provide otherwise. If the controllable account does not include an express choice of law, U.C.C. § 12-107 provides a waterfall of default approaches.[120]

The U.C.C. Amendments inspired a project at UNIDROIT to develop private law principles governing digital assets—the 2023 Principles on

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[111] *Id.* § 9-102 cmt. d.1.
[112] *Id.* § 12-102(a)(1).
[113] Tosato et al., *supra* note 108, at 1155–56; Julia Patterson Forrester Rogers, *eMortgage and Crypto-Mortgage in Home Finance*, 52 PEPP. L. REV. 1, 42–44 (2025).
[114] U.C.C. § 12-106.
[115] *Id.* § 3-301.
[116] *Id.* § 9-406(a).
[117] *Id.* § 12-106 cmt. 2.
[118] *See id.* § 12-107.
[119] *Id.* § 12-107(c).
[120] *See generally id.* § 12-107.

Digital Assets and Private Law (DAPL).[121] Similar to U.C.C. Article 12, DAPL covers digital assets, broadly defined as any electronic records that can be controlled.[122] They contain legislative recommendations guiding States in crafting a legal framework for transferring, custody, and security rights in digital assets.[123] DAPL was designed to apply mainly to the archetypal crypto assets, such as Bitcoin. However, they also provide guidance on linked assets in Principle 4, which are defined therein as digital assets linked to another asset that may be tangible or intangible.[124] DAPL defers to other laws of the State that may determine the existence of a link and provide for the legal effect of a transfer. Accordingly, Principle 4 does not create a new type of asset, such as a controllable receivable, but recognizes that other laws may provide for it. Likewise, DAPL does not extend Principle 8 on innocent acquisition to linked assets, as a result of which the holder may acquire a digital asset, but whether it effectively cuts off pre-existing claims to the linked asset is a matter of other law.[125]

Special laws in Japan, amendments to Codes in the United States, and general digital assets laws as contemplated by DAPL, may be used as vehicles to recognize a new asset type that may embody payment rights in some digital records, whether in the form of a token or registry entry. These laws may combine features of negotiable instruments and receivables.

V. LAW THAT FITS THE EMERGING FINANCING PARADIGMS

The preceding Section examined the laws that govern various types of digital records that reify payment rights. This Section applies the six core elements to the digital financing paradigms, analyzing whether the existing laws provide certainty to the parties in those transactions. It lays the framework for assessing an optimal legislative approach.

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[121] *See* UNIDROIT, *UNIDROIT Principles on Digital Assets and Private Law*, princs. 7-11 (2023), https://www.unidroit.org/wp-content/uploads/2024/01/Principles-on-Digital-Assets-and-Private-Law-linked-1.pdf [hereinafter *UNIDROIT Principles of DAPL*].

[122] For an overview of the approach adopted by UNIDROIT and the need for a harmonized approach, see Teresa Rodríguez de las Heras Ballell, *The Emergence of Principles and Best Practices on Digital Assets: Proprietary Rights, and Enforcement*, 15 EUR. J. RISK REGUL. 1, 2 (2024).

[123] *See also* CASTELLANO & DUBOVEC, *supra* note 8.

[124] *UNIDROIT Principles of DAPL*, *supra* note 121, princ. 4.

[125] *Id.* princ. 8.

A. Scope of Payment Rights

The law must be certain to enable the parties to identify whether the type of asset they wish to deploy, such as IPU and DTT, could be made subject to that law or particular rules of that law. The scope of application for the MLETR-type of legislation and Latin American laws is defined by the existence of their paper counterparts. The Japanese law-registered claims are narrowly confined to a particular type of payment right. For a payment right to be governed by the respective law, it must generally satisfy strict and formal requirements. Digital records embodying those rights may also need to satisfy operational requirements, such as the technical criteria that preserve the integrity of the record or be registered with an authority. Since these laws are crafted to avoid overlaps and duplication, as well as provide a high degree of protection to transferees, party autonomy is not allowed. Accordingly, parties may not design a special type of undertaking and then opt into the application of laws for negotiable instruments or controllable accounts.

The scope of application of U.C.C. Article 12 for CERs and DAPL for digital assets is broad and confined only by the technological capabilities of the record itself and the system within which it is held. An undertaking of the account debtor may constitute a controllable account if the technological capabilities confer certain control powers on the holder. The IPU would satisfy the parameters of the controllable account. However, the DTT, which is a stablecoin, may not qualify as a controllable account, digital negotiable instrument, or electronic invoice. U.C.C. Article 12 and DAPL provide a safety valve for those digital records that would otherwise not qualify as a digital equivalent of a transferable document or fit neatly into a special category of other digital records.[126] Even though these two regimes were seemingly crafted to govern the prototypical crypto assets, such as Bitcoin, they would provide a safety valve with a high degree of predictability and certainty to the designers of systems and payment rights, such as DTTs. Accordingly, the MLETR, receivables, and the regimes governing electronic invoices might not be sufficient to provide adequate legal backing for some digital finance paradigms.

[126] U.C.C. § 12-104; *UNIDROIT Principles of DAPL*, *supra* note 121, princ. 4.

B. Transfer by an Efficient Mechanism

Payment rights may be transferred by various mechanisms to render them effective against third parties. Receivables may be assigned, and instruments may be negotiated.[127] Transfers of receivables will typically require some form of public notice.[128] Paper documents and instruments typically require delivery of possession.[129] Laws have provided for control to serve as the equivalent of functions performed by possession.[130] Control is achieved differently depending on the type of asset as well as how it is held.[131] For instance, a person may transfer specified powers with respect to a CER, and the transferee will acquire control, as defined in U.C.C. § 12-105.[132] Registration may also effectively achieve control if the system satisfies the MLETR integrity requirements or the DAPL Principle 6 parameters concerning the powers of the holder.[133] Japanese and Latin American laws do not refer to control, but they do require registration with some authority.[134] If MLETR were applied to those regimes, those registration systems would likely satisfy the legal and technological requirements for control.

In many laws, control is provided as an alternative to registration.[135] Receivables and security interests in almost all types of assets may be transferred and perfected by registration.[136] In any case, the law must provide for a clear framework of mechanisms that effectively transfer digital payment rights and specify the relevant priorities.[137] Transferees must understand the

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[127] Marek Dubovec, *Toward Decentralized Commercial Law for Digital Assets*, 19 NW. J. TECH. & INTELL. PROP. 239, 277 (2022).

[128] U.C.C. § 9-310.

[129] *See id.* § 3-201(a) (defining negotiation to require a transfer of possession).

[130] *See id.* § 7-106.

[131] *See id.* § 8-106 (providing for different types of control depending on the type of investment property); Dubovec, *supra* note 127, at 273.

[132] U.C.C. § 12-105(a)(1)(B)(ii). *See also id.* § 12-105 cmt. 6.

[133] UNCITRAL MLETR, *supra* note 73, art. 10; *UNIDROIT Principles of DAPL*, *supra* note 121, princ. 6.

[134] Electronically Recorded Monetary Claims Act (Japan), *supra* note 99; Ley No. 10069, *supra* note 85; L. 1231, *supra* note 91.

[135] *See* U.C.C. § 9-107A cmt. 1 (stating that control may also be the exclusive perfection mechanism, such as for electronic money under U.C.C. § 9-105A).

[136] *Id.* § 9-310.

[137] *Id.* § 9-326A.

technological steps required to obtain the digital record and, if other persons acquire competing rights, their respective priorities.

Transferring payment rights by control is a more efficient mechanism in that it limits the possibilities of others to acquire superior, and even competing, interests. For some transactions, however, registration is less costly, particularly when the transferor is expected to transfer multiple payment rights to the same transferee over a period of time. Under U.C.C. Article 9, a single filing would achieve perfection with respect to existing and future receivables. But the IPU and DTT are designed to be split and transferred in increments to multiple parties, which would then necessitate multiple filings. The registration systems for individual payment rights, such as electronic claims and invoices, would also necessitate multiple registrations. One then needs to compare the efficiency of these registration systems against the efficiency of an automated system/platform that confers control powers. No doubt, the latter imposes fewer costs and provides a more accurate picture of who has rights to certain digital payment rights than the many registrations and cancellations that are reflected in the public record of U.C.C. filing systems, with a delay, or the dozens of individual registrations necessary to support the financing paradigms.

C. Divisibility of Payment Rights

A critical feature of the financing paradigms is that the payment right may be split by the holder and then transferred separately. The law of negotiable instruments does not recognize this possibility. U.C.C. § 3-203(d) specifically provides that "[i]f a transferor purports to transfer less than the entire instrument, negotiation of the instrument does not occur. The transferee obtains no rights under this Article and has only the rights of a partial assignee."[138] While certainly a paper negotiable instrument may not be carved into pieces, this is technologically feasible for its digital equivalents. But the laws governing negotiable instruments do not recognize that possibility to protect the maker or other person obligated on the instrument against the burden of figuring out whether multiple holders may claim partial payments and effectuate those payments. Accordingly, if the IPU or DTT were characterized as a digital negotiable instrument, the

[138] *Id.* § 3-203(d).

governing law would, at best, confer the status of assignees on such holders, thus defeating the benefits of negotiation, as will be explained in the following Subsection. Furthermore, it may require such holders to perfect their interest in the assigned rights to payment, which would most likely be classified as receivables, by registration, as control is unlikely to be the recognized mechanism to render those transfers effective against third parties.

Laws governing receivables contemplate the possibility of partial transfers while protecting debtors who may refuse to recognize partial transfers and pay the entire sum to the transferor.[139] The financing paradigms are powered through platforms that automatically effectuate payments, which eliminates the administrative burden.[140] But if the third-party effectiveness of any transfer is conditioned on registration, every partial transfer must be recorded to gain protection in insolvency and against competing claimants. While the platform may be technologically capable of automating several processes, registries, such as U.C.C. filing systems, are typically operated by governmental agencies and are much less automated, which overall increases administrative costs.[141]

Digital records may likewise be split into incremental fractions that may be transferred separately. An account debtor on a controllable account may, however, like the account debtor on a receivable, ignore an instruction to divide the payment, make less than the full payment, or pay to multiple persons.[142] The reasons for the protection of account debtors are the same as those applicable to receivables. Even though the laws governing assignments of receivables and controllable accounts permit account debtors to ignore instructions to split payments, the fact that the financing paradigms are operated through platforms will alleviate their concerns with increased administrative costs in settling payments under IPUs and DTTs.

D. Rights of Transferees: Degrees of Transferability

Laws have conferred varying degrees of transferability on payment rights. Receivables may be assigned so that the assignee steps into the shoes

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[139] *Id.* § 9-406(b)(3).
[140] PROJECT DYNAMO, *supra* note 60, at 5.
[141] *Id.*
[142] U.C.C. § 12-106(d)(3).

of the assignor. But the quality of rights of the assignee may be bolstered by the account debtor waiving its defenses and set-off rights.[143] The assignee may also reserve recourse, in which case it will have the right to transfer the receivable back to the assignor if, for instance, it turns out to be uncollectible.[144] A higher degree of transferability has been recognized by law for negotiable instruments where a holder in due course may extinguish pre-existing claims of property rights as well as some personal rights of the obligor.[145] A high degree of transferability of assets plays a crucial role in spurring secondary markets by enhancing liquidity, price discovery, and market participation.[146] It may also generate risks that otherwise would not exist, such as fraudulent schemes where the value of a digital asset may be artificially inflated just to be quickly sold, and the value then rapidly decreases.[147]

Functional equivalence dictates the same degree of transferability for equivalents of paper instruments. The goal of the MLETR is to recognize digital equivalents of paper instruments without altering the rules governing negotiability.[148] Since invoices have been recognized as negotiable in many Latin American jurisdictions, their digital equivalents will continue to benefit from the same degree of transferability. It has been argued that "by cloaking CERs in the mantle of negotiability, [U.C.C. Article 12] bolster[s] the commercial circulation of these assets, reduce[s] title inquiry burdens and administrative verification costs, facilitate[s] transactional certainty and finality, and mitigate[s] transactional vulnerabilities (including ownership disputes)."[149] DAPL took inspiration from the U.C.C. Article 12 qualifying purchaser and crafted a similarly protected standard of innocent transferee.[150]

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[143] *Id.* § 9-403.

[144] *Id.* § 9-404.

[145] *Id.* §§ 3-305(b), 3-306.

[146] Edward L. Rubin, *Learning from Lord Mansfield: Toward a Transferability Law for Modern Commercial Practice*, 31 IDAHO L. REV. 775, 796 (1994–1995); James Steven Rogers, *Negotiability, Property, and Identity*, 12 CARDOZO L. REV. 471, 478–80 (1990) (questioning whether negotiability is essential for marketability).

[147] These are known as "pump-and-dump" schemes. *See* Sangita Gazi, *Reimagining a Centralised Cryptocurrency Regulation in the US: Looking Through the Lens of Crypto-Derivatives*, 6 CAMBRIDGE L. REV. 97, 116 (2021).

[148] UNCITRAL MLETR, *supra* note 73, Explanatory Note para. 3.

[149] Tosato et al., *supra* note 108, at 1156. *See also* Mark Edwin Burge, *After FTX: Can the Original Bitcoin Use Case Be Saved?*, 72 U. KAN. L. REV. 1, 41–42 (2023).

[150] U.C.C. § 12-102(a)(2) (defining "qualifying purchaser"); *UNIDROIT Principles of DAPL*, *supra* note 121, princ. 8 (discussing the standard for qualifying as an innocent acquirer).

Under the 2022 U.C.C. Amendments, controllable accounts are governed by the same transfer regime as CERs. A U.C.C. qualifying purchaser may acquire a controllable account free from a claim of property rights.[151] Furthermore, just like under ordinary receivables, account debtors may waive their claims and defenses. The qualifying purchaser of a controllable account need not worry about claims and defenses of the account debtor and proprietary interests of competing claimants. Its ability to collect the payment will only depend on the creditworthiness of the account debtor.[152] While the due diligence costs for a prospective holder are reduced, they are not eliminated. The holder would still need to determine whether the account debtor waived their defenses, examine the terms of the controllable account to determine the governing law, and take control of each controllable account individually.[153] Furthermore, unlike a holder in due course who takes the negotiable instrument free from personal defenses and claims in recoupment under U.C.C. § 3-305(b), the CER does not afford the same benefit to qualifying purchasers.[154] That effect may be achieved by a contractual waiver.[155] Consequently, the qualifying purchaser would need to examine more than the authenticity of the CER, which would suffice for holders in due course of negotiable instruments.[156]

The relevant law allows assignees of receivables, holders in due course of negotiable instruments, and qualifying purchasers of controllable accounts to acquire a protected status, but of a different nature. While the protection is not exactly the same, parties may take steps to practically immunize themselves from conflicting claims of property rights, as well as any defenses and rights of set-off that may be asserted by account debtors/obligors.[157] If IPUs and DTTs were characterized as controllable accounts or MLETR instruments, their holders would achieve that protection more easily than assignees of ordinary receivables. Irrespective of the characterization of the IPU or DTT, participation in a platform that executes the financing paradigm is expected to bind the participants to a set of rules that will provide a

[151] U.C.C. § 12-104(e).
[152] Tosato et al., *supra* note 108, at 1158.
[153] *Id.* at 1164.
[154] David Frisch & Nicole Dalrymple, *Oops! The Unfortunate (but Basic) Error in the New UCC Article 12*, 11 TEX. A&M L. REV. 515, 527 (2024).
[155] *Id.*
[156] *Id.* at 531.
[157] *Id.*

functionally similar set of protections to holders of payment rights. However, the holders will need to take different steps to perfect their protection against third-party claims.

E. Efficient Enforcement Mechanisms

Financiers of payment rights should routinely be able to collect them without resorting to some judicial mechanisms. Even in the case of disputes, they may use risk mitigants, such as reserves or buffers created against uncollectible receivables and recourse. However, negotiable instruments and invoices may benefit from expedited judicial enforcement mechanisms. Under New York law, the holder of a negotiable instrument may file a motion for summary judgment in lieu of a complaint.[158] The procedural requirements are strict and require the claimant to present a *prima facie* case that the obligor acknowledged the debt and that it has not been paid.[159] Several Latin American jurisdictions provided for a similarly expedited process to enforce negotiable instruments, which, by definition, include an invoice.[160] In Mexico, a holder of a negotiable instrument has access to executive proceedings (*acción cambiaria*) under which the obligor has limited defenses.[161] Generally, the presentation of a negotiable instrument and proof of non-payment would suffice as evidence. The procedure allows a pre-judgment seizure of an asset to secure the payment of the debt.

These types of procedures would be available to enforce MLETR digital negotiable instruments, but also, depending on the nature of the undertaking of the account debtor, controllable accounts. DAPL in Principle 18 clarifies that ordinary procedural law will continue to apply to digital assets.[162] Accordingly, if the underlying procedural law has been designed to apply to a specific type of payment right, it might not be available for the enforcement of payment rights linked to a digital record. Overall, it is unlikely that

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[158] N.Y. C.P.L.R. 3213 (MCKINNEY 2022).

[159] Jeffrey M. Haber, *Summary Judgment in Lieu of Complaint: When Is an Instrument for the Payment of Money Only an Instrument for the Payment of Money Only?*, FREIBERGER HABER LLP (Apr. 6, 2022), https://fhnylaw.com/summary-judgment-in-lieu-of-complaint-when-is-an-instrument-for-the-payment-of-money-only-an-instrument-for-the-payment-of-money-only/.

[160] *See* Ley No. 27287 [Law No. 27287], Ley de Títulos Valores [Securities Law], junio 19, 2000, DIARIO OFICIAL EL PERUANO (Peru).

[161] Ley General de Títulos y Operaciones de Crédito [LGTOC] art. 150, Diario Oficial de la Federación [DOF] 27-08-1932, última reforma DOF 26-03-2024 (Mex.).

[162] *UNIDROIT Principles of DAPL*, *supra* note 121, princ. 18.

powerful judicial remedies will significantly influence the design of IPU and DTT, as parties would prefer to ensure continuous participation in financing paradigms rather than engage in litigation. However, if such remedies are crafted narrowly in the existing law, states may wish to ensure that they apply to functional equivalents of the identified payment rights.

F. Conflict of Laws Rules

Conflict of law rules are crucial, particularly for cross-border transactions, as they determine the applicable laws to various aspects of the transaction. Parties to the emerging financing paradigms should be readily able to determine the applicable law, which is critical as the IPUs and DTTs get fractionalized and transferred to downstream tiers of suppliers located in multiple jurisdictions. Even though market participants may have agreed not to litigate or resolve disputes by reference to custom, applicable law is critical in the case of insolvency and fraud.[163] The connecting factors that determine the relevant law differ based on the type of asset and the nature of the relationship, rights, or obligations, and depend on the characterization of the issue. Statutes generally allow parties to choose the law governing their mutual rights and obligations.[164] However, most financing transactions involve both contractual and proprietary aspects, thus limiting the ability to choose the applicable law.[165] These paragraphs examine only the law applicable to proprietary effects of transfers, in recognition of party autonomy for contractual aspects.

For proprietary effects, statutory law typically provides a mandatory connecting factor.[166] Connecting factors vary. For instance, while transfers

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[163] *ETDs in Private International law: FAQs*, LAW COMMISSION (Oct. 11, 2024), https://cdn.websitebuilder.service.justice.gov.uk/uploads/sites/54/2025/01/FAQs-ETDs-in-PIL.pdf.

[164] *UNIDROIT Model Law on Factoring*, *supra* note 11, art. 36(1).

[165] Andrew Dickinson, *Electronic Trade Documents and the Conflict of Laws in the United Kingdom*, 2024 LLOYD'S MAR. & COM. L. Q. 55, 60, 63 ("[I]t is not settled whether the law applicable to a contract embodied in a bill of exchange or promissory note may be chosen by the parties. . . . Separately, questions as to the proprietary effect of transactions or events affecting title to, or possession of, bills of exchange and promissory notes in paper form are governed, at common law, by the law of the place where the bill of note was situated at the time of the event in question (*lex situs*).").

[166] For a discussion of the law applicable to digital negotiable instruments, see Koji Takahashi, *Blockchain-Based Negotiable Instruments: With Particular Reference to Bills of Lading and Investment Securities*, *in* BLOCKCHAIN AND PRIVATE INTERNATIONAL LAW 494, 494 (Andrea Bonomi et al. eds., 2023).

of receivables may be governed by the law of the location of the transferor, transfers of negotiable instruments will be governed by the location of the instrument.[167] Laws governing contractual and property aspects of the transaction may differ, such as where one law governs the effect of an anti-assignment clause restricting the transfer of a receivable, while another law governs the effect of a transfer against third parties, including in the event of insolvency.[168] This is also the case with negotiable instruments that bundle contractual and proprietary rights. Digitization of payment rights may necessitate new connecting factors, notably because digital payment rights do not have a physical location.

The MLETR does not include a conflict of laws rule. As a result, if a State has implemented it without adding a specific connecting factor, parties to a transaction, as well as courts, may have to undertake a complicated analysis to arrive at the applicable law. Under the U.K. Electronic Trade Documents Act, parties and courts must resort to the rules that govern paper trade documents.[169] The U.K. Law Commission has undertaken a project to deal with the issue of the law applicable to digital assets and electronic trade documents.[170] Until the statutory law incorporates a specific connecting factor, courts and market participants may need to engage in an analytical process as described by Dickinson: "[F]irst, by analyzing the information constituting the electronic trade document in order to specify its paper equivalent . . . secondly, by characterizing the issue or issues that fall to be determined by the court . . . thirdly, by identifying the statutory or common law choice of law rule(s) that fix the law applicable to that issue or those issues for the equivalent paper trade document; and, fourthly, by applying the relevant choice of law rules to determine the law applicable to each issue, with such adaptations as may be necessary having regard to the fact that the instrument is in electronic, not paper, form."[171] The situation is the same in other jurisdictions, such as Latin America, which enacted laws digitizing

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[167] U.C.C. § 9-301(1) (governing the law applicable to accounts); *id.* § 9-301(3) (governing the law applicable to instruments).

[168] *UNIDROIT Model Law on Factoring*, *supra* note 11, arts. 36(2)(b), 37.

[169] LAW COMMISSION, REPORT NO. 405, ELECTRONIC TRADE DOCUMENTS: REPORT AND BILL (2022).

[170] LAW COMMISSION, CONSULTATION PAPER NO. 254, DIGITAL ASSETS AND (ELECTRONIC) TRADE DOCUMENTS IN PRIVATE INTERNATIONAL LAW INCLUDING SECTION 72 OF THE BILLS OF EXCHANGE ACT 1882 (2025).

[171] Dickinson, *supra* note 165, at 59.

invoices. Arguably, however, at least in jurisdictions that require the registration of a digital invoice with some central authority, the local law would govern proprietary effects of any transfers upon the registration.

U.C.C. Article 12 crafted a novel approach to determining the law applicable to CERs, inspired by U.C.C. §§ 8-110 and 9-305.[172] It is based on party autonomy, which allows the parties to designate the law of the CER's jurisdiction for the matters covered by U.C.C. Article 12. Party autonomy may be expressed in four ways, recognized by U.C.C. § 12-107 in a waterfall of alternatives.[173] While many CERs at the time of approval of the Amendments in 2022 did not contain a choice of law clause, the drafters expected that this approach would encourage designating an applicable law and thus increase predictability.[174] The choice must be explicit and readily available for review to prospective parties considering dealing with the CER.[175]

DAPL Principle 5 provides a solution closely tracking the approach of U.C.C. § 12-107.[176] Like U.C.C. § 12-107, the party autonomy approach encourages designers and issuers of digital assets to identify the applicable law in the asset itself or in a system where it is maintained. Unlike U.C.C. § 12-107, Principle 5 provides for a set of connecting factors, in a waterfall format, for all proprietary issues rather than those covered by the DAPL. This approach prevents the application of multiple laws to proprietary issues concerning a single digital asset.[177] Principle 5 does not cover many issues, such as those concerning the law applicable to linked assets.[178]

The Hague Conference on Private International Law (HCCH) explored a project to develop DAPL Principle 5 further, but faced opposition primarily from the French experts, arguing that a uniform solution is premature and that the failures of crypto platforms highlighted primarily the regulatory and supervisory failures.[179] The French letter to the HCCH explained that a conflict of laws approach based on party autonomy could lead to the

[172] U.C.C. § 12-107 cmt. 1.
[173] *Id.* § 12-107 cmt. 3.
[174] *Id.* § 12-107 cmt. 6.
[175] *Id.* § 12-107 cmt. 5.
[176] *UNIDROIT Principles of DAPL*, *supra* note 121, cmt. 5.1.
[177] *Id.* cmt. 5.2.
[178] *Id.* cmt. 5.24.
[179] HAGUE CONF. ON PRIV. INT'L L. [HCCH], *HCCH-UNIDROIT Digital Assets and Tokens Joint Project: Report*, at 3-5, Prel. Doc. No. 3 (Mar. 2024), https://assets.hcch.net/docs/efce41ca-1c8c-4d61-9d8b-9348df9303a0.pdf.

application of a law with a weak regulatory framework, which could disadvantage investors.[180] Even though this argument fails to distinguish the law applicable to private law matters from those of a regulatory nature, the HCCH did not pursue the project further, lacking a consensus.[181] The French letter also urged the HCCH to consider different connecting factors for various types of digital assets, which the HCCH has accepted to undertake in its project on digital tokens, for which it convened the Experts' Group that had its first meeting in June 2025.[182] One of the priority case studies for this project is electronic transferable records governed by the MLETR.

The approach that allows the parties to designate the applicable law is suitable for the financing paradigms. The organizational structure of these paradigms simplifies the verification of the applicable law, as the relevant system or platform may designate the same law for all digital records maintained therein. Parties should not designate the governing law in each digital record. Characterizing IPUs and DTTs as negotiable instruments would place them in a legal vacuum, and the application of connecting factors governing receivables would result in the application of multiple laws to various tiers of transactions within the respective paradigm.

VI. CONCLUDING REMARKS

This Article examined two concurrent trends: (i) the adaptation of laws to enable digital financing transactions and (ii) the emergence of new financing paradigms that use new types of payment rights. The legislative approach pursued by States varies from recognizing digital equivalents of paper instruments to providing for new types of digital records embodying payment rights. These efforts share the same objective, which is to digitize and make more efficient the financing of payment rights. They achieve that objective differently, and this Article highlights those differences, which play a critical role in facilitating the new financing paradigms. It isolated six core elements of those paradigms to analyze which legislative approach facilitates those transactions more efficiently. While the laws governing negotiable

[180] *Id.*
[181] *Id.*
[182] *First Meeting of the Experts' Group on Digital Tokens*, HCCH (June 23, 2025), https://www.hcch.net/en/news-archive/details/?varevent=1081.

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instruments, receivables, and digital assets may power the paradigms, they engender different uncertainties, risks, and costs.

First, parties may need to determine the classification of the payment right. The undertaking to pay purported to be issued as negotiable, but if the digital representation of that right is coded with various conditions, the negotiable instruments laws would not apply. U.C.C. Article 12 controllable accounts do not condition the application of the relevant set of rules on satisfying strict conditions, other than the system conferring certain powers on the holder. If those requirements are not met, the holder may have acquired a receivable with the corresponding rights and immunities from the claims of third parties.

Second, the classification determines several crucial effects, including the availability of a transfer mechanism. If the payment right is an ordinary receivable, its transfer will require a public filing. This mechanism is likely to be less efficient and more administratively costly. The availability of control for the transfer of payment rights embodied in digital negotiable instruments and digital assets is not only more efficient, but also more protective of the rights of holders as against claims of third parties.

Third, the divisibility of payment rights is critical in the emerging financing paradigms. While all three types of payment rights may be split and transferred separately, the act of division affects the protections of the transferee. Dividing a negotiable instrument would not allow the transferee to acquire the protected status of the holder at the right time. Digital assets, including controllable accounts, may be split while their multiple transferees can still benefit from the status of a qualifying purchaser.

Fourth, acquiring a protected status that immunizes holders from pre-existing claims and interests enhances the marketability of assets and reduces administrative costs. The baseline rule confers the highest level of transferability on negotiable instruments, followed by controllable accounts, and finally receivables. Qualifying purchasers of controllable accounts and assignees of receivables may elevate their status by extracting waivers from obligors and account debtors. Their status will not be affected by the coding of any conditions to trigger the payment obligation while those conditions would effectively degrade the holder in due course of a negotiable instrument. The result is that in the emerging financing paradigms, holders of controllable accounts would achieve the highest level of protection against third-party claims.

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Fifth, holders of all three types of payment rights benefit from a set of extrajudicial remedies that allow them to enforce the obligor's obligation to pay. However, certain civil procedural laws also provide for specific expedited judicial remedies that are available only to the holders of defined payment rights, such as holders of negotiable instruments. Holders of other types of payment rights might not be authorized to resort to such remedies. But, as noted above, it is unlikely that the financing paradigms would necessitate parties to use judicial remedies, as their primary concern is to remain involved in the financing structure.

Finally, parties may have difficulties ascertaining the applicable law if the payment rights were characterized as negotiable instruments. Classifying payment rights as receivables would result in the application of multiple laws to relationships within the paradigms. The application of digital assets laws would provide the greatest degree of certainty, and at a low cost, as a single law could be applicable to all relationships within the paradigms.

It is not recommended for a State to provide a legal framework where three types of payment rights—receivables, digital negotiable instruments, and digital assets tethered to payment rights—co-exist, which would increase the cost of due diligence, the potential for conflicting claims, and overall complexity. States are encouraged to proceed methodically, identifying a particular set of financing paradigms, and then design an appropriate reform strategy. Rather than enacting a general law and hoping that credit products will emerge, this Article suggests deploying a product-focused reform strategy (PRS) that analyzes the core elements of individual transactions, yielding appropriate legislative approaches.

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