

The UNCITRAL Model Law on Electronic Transferable Records Law: Streamlining Monetary Payments and the Transfer of Goods Through E-Commerce

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Abstract

With the enactment of the Bahrain Electronic Transferable Records Law (2018), Bahrain is the first country to enact of the United Nations Commission on International Trade Law (UNCITRAL) Model Law on Electronic Transferable Records. The Model Law provides for electronic negotiable instruments, such as cheques and promissory notes, and negotiable documents, such as warehouse receipts and bills of lading. The law sets out the legal framework for businesses and individuals to transfer electronically the rights to money and goods.

I will suggest that other countries should follow Bahrain's lead and enact similar legislation. My presentation has three sections. First, I will provide a thorough discussion of the major legal principles contained in the Model Law. Second, I will explain how the Model Law fits within the broader context of commercial law as a whole, and third, I will discuss the challenges that an enacting jurisdiction will have in taking the legal framework of the model and implementing an electronic system that can accommodate electronic transferable records.

The Model Law is an important second revolution in commercial practices. The first occurred several hundred years ago with the development of the negotiable instrument, which allows the transfer of money without having to move currency physically, as well as the negotiable document that allows the transfer of the right to goods while the goods are still in the possession of third parties. Traditional negotiable instruments and documents, defined as "transferable records" in the new law, allow for the transfer of the title and rights to goods and money by the transfer of paper that represents the right to the goods or money.

Keywords: Commercial Law, Electronic commerce, Bills of Lading, Warehouse Receipts, Negotiable Instruments.

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I. Introduction

In the summer of 2017, the United Nations Commission on International Trade Law (UNCITRAL)⁽¹⁾ approved the UNCITRAL Model Law on Electronic Transferable Records (MLETR)⁽²⁾. In this article, I will discuss the structure and goals of the Model Law and whether it in fact achieves these goals. I will also discuss what is necessary to have a fully functioning system of electronic transferable records once a jurisdiction enacts a law based on the Model Law. Currently the only country to adopt the Model Law is the Kingdom of Bahrain⁽³⁾. Other countries, such as Singapore, are also looking to adopt the Model Law. Because the Model Law provides legal recognition for a type of electronic commerce that business has shown a keen interest in, we can anticipate that the Model Law will be widely adopted in the future. As I will suggest, the restraints in the near future will not be legal but technological.

II. The Purpose and Function of the Model Law

The Model Law enables parties to conduct commercial transactions electronically that would otherwise need to be documented by paper as a negotiable instrument or negotiable document. The Model Law acknowledges that the primary function of having negotiable instruments and documents in writing is to allow easy transfer of legal rights by the transfer of the paper that evidences these rights. The Model Law recognizes that given the current state of technology, this function can easily be met electronically. Consistent with contemporary law of electronic commerce, the law supplants form with function.

It is important to recognize that many jurisdictions already have laws that provide for some types of electronic transferable records, and in many cases, even without enabling law, business is conducted so that the rights traditionally embodied in paper instruments and documents are created and transferred electronically. In other words, although the Model Law may be seen as

- (1) The United Nations Commission on International Trade Law (UNCITRAL) is a subsidiary body of the General Assembly of the United Nations. UNCITRAL was established in 1966. The Commission has a general mandate to harmonize and unify the law of international commerce. Since its founding, UNCITRAL has prepared a wide range of conventions, model laws and other instruments that deal with the substantive law that governs commercial transactions or other aspects of business law which have an impact on international commerce. UNCITRAL is made up of sixty-member states. Members of the Commission are elected for terms of six years. The terms of half the members expire every three years.
- (2) The Model Law was adopted by the United Nations General Assembly A/RES/72/114. The UNCITRAL working group began working on the Model Law in 2011. Official Records of the General Assembly, Sixty-sixth Session, Supplement No. 17 (A/66/17), para. 238.
- (3) The Kingdom of Bahrain Electronic Communications and Transactions Law (2018).

innovative in some jurisdictions, it is based on some models that already exist and are widely used in other jurisdictions⁽⁴⁾.

The Model Law neither creates any new type of transaction nor prohibits any existing type of transaction that would otherwise be documented by paper, and the law neither adds nor removes any requirements for existing transactions. The substantive rules in the Model Law, for the most part, only provide rules that are specific to the electronic aspects of transactions⁽⁵⁾.

The Model Law provides for technology neutrality; it does not require any specific electronic system. The Model Law assumes the technology necessary to implement its provisions are still developing and will further develop over time⁽⁶⁾.

From the beginning of the project by UNCITRAL, the mandate of the working group was ambitious. The Model Law provides for the legal recognition of all transferable records⁽⁷⁾ in electronic form. After its recent adoption of the Model Law, the Kingdom of Bahrain is the only jurisdiction that has a law that covers all transferable records, that being both two and three party negotiable instruments as well as warehouse receipts and bills of lading⁽⁸⁾.

The core principle of the MLETR is that “[a]n electronic transferable record shall not be denied legal effect, validity or enforceability on the sole ground that it is in electronic form”⁽⁹⁾. The other provisions of the MLETR attempt to flesh out this principle with a series of enabling rules⁽¹⁰⁾ that give legal recognition to electronic forms of negotiable instruments and negotiable

(4) For example, electronic warehouse receipts have been used in the United States for decades.

(5) As I will discuss later in this article, these include the weight and presumptions given electronic records and signatures, the electronic equivalent of an original and of multiple copies of documents, the retention of documents, the use of electronic agents, the time and place of dispatch and receipt of electronic records, and the location of the parties using electronic records. The law also provides liability rules for the parties and intermediaries engaged in electronic transactions.

(6) The law gives broad recognition of, but leaves for future regulations, specific guidance for electronic notaries, the accreditation of trust service providers, electronic identification schemes, and domain registries.

(7) The genesis of the project came from a submission by the United States to the annual UNCITRAL Commission meeting in 2009. A/CN.9/681/Add.1.

(8) Thus, for example, the law of the United States has only partially adopted laws for electronic transferable records. The United States has long provided for electronic warehouse receipts, but the United States law does not explicitly provide for, nor are there presently any electronic systems for electronic negotiable instruments.

(9) MLETR, art. 7.

(10) It is common to speak of a law such as this one as an “enabling” law, as it is intended to enable parties to do electronically what they could already do with traditional paper-based transactions. There is a limitation of this concept of “enabling” as it is only intended to enable electronic transactions, but it is not intended to create any new substantive transactional rights.

documents. Consistent with the emerging laws of electronic commerce, the Model Law adopts the concept of “functional equivalence”⁽¹¹⁾.

The Model Law provides a legislative template for jurisdictions that do not already give legal recognition for electronic transferable records. In some jurisdictions, the use of electronic transferable records is already recognized, and as a result, these records are widely used. In these jurisdictions, the Model Law will be of limited benefit.

III. Scope

As originally proposed, the Model Law was intended to cover electronic transferable records that serve as electronic substitutes for transferable instruments⁽¹²⁾ and transferable documents⁽¹³⁾. This was the working assumption by UNCITRAL’s Secretariat as the Working Group began its work⁽¹⁴⁾. The Working Group retained this assumption, and it is reflected in the text of the Model Law as adopted.

(11) See e.g., Henry D. Gabriel, “Electronic Commerce in International Commercial Law: Where Have We Been and Where Are We Going” 14 *International Trade and Business Law Review* 336 (2011).

(12) United Nations Document A/CN.9/WG.IV/WP.119, para 6 (3 August 2012): “Transferable instruments are financial instruments that permit transfer of the instrument to persons who are not parties to the underlying transaction. They may contain an unconditional promise to pay a fixed amount of money to the holder of the instrument, or an order to a third party to pay the holder of the instrument. Examples of transferable instruments include promissory notes, drafts, cheques, and certificates of deposit. They may also include chattel paper (e.g. retail instalment sales contracts, promissory notes secured by an interest in personal property, and equipment leases)”.

(13) *Ibid.* at para. 7.: “Transferable documents, also called documents of title, include transport documents, bills of lading, dock warrants, dock receipts, warehouse receipts, or orders for the delivery of goods, and also any other documents which in the regular course of business or financing are treated as adequately evidencing that the person in possession of it is entitled to receive, hold, and dispose of the document and the goods it covers (subject to any defenses to enforcement of the document)”.

(14) A/CN.9/WG.IV/WP.115, para. 3 (8 September 2011):

The term electronic transferable record is used in this note as a general term to refer to the electronic equivalent of a transferable instrument (negotiable or non-negotiable) or a document of title:

- a) Transferable instruments are financial instruments that may contain an unconditional promise to pay a fixed amount of money to the holder of the instrument, or an order to a third party to pay the holder of the instrument. Examples of transferable instruments include promissory notes, bills of exchange, cheques, and certificates of deposit. They may also include chattel paper (e.g. retail instalment sales contracts, promissory notes secured by an interest in personal property, and equipment leases);
- b) Documents of title are documents which in the regular course of business or financing are treated as adequately evidencing that the person in possession of such document is entitled to receive, hold, and dispose of the document and the goods indicated therein (subject to any defenses to enforcement of the document). Examples of documents of title include certain transport documents, bills of lading, dock warrants, dock receipts, warehouse receipts, or orders for the delivery of goods.

a. What is an Electronic Transferable Record?

The MLETR applies to “electronic transferable records”⁽¹⁵⁾. The Model Law does not expressly define an electronic transferable record, though, and therefore to define this term, several sections of the Model Law must be examined.

First, the Model Law provides a definition of “transferable document or instrument”⁽¹⁶⁾. The Model Law also provides a “definition” of “electronic transferable record” that does not actually provide a definition, but instead provides that an “electronic transferable record” is an electronic record that meets the requirements of article 10⁽¹⁷⁾. Article 10 provides the means by which one can determine whether an electronic record meets the requirements of an electronic record by requiring that the electronic record must have all the information that would be included in a “transferable document or instrument”. This circular analysis lead to the conclusion that an electronic transferable record is the electronic equivalent of what would be a transferable document or instrument under the otherwise applicable domestic law.

The Model Law does not specify exactly which transferable documents or instruments should be included in the domestic legislation. Instead, it leaves this determination to the law of the enacting jurisdiction⁽¹⁸⁾. The domestic enactment should include the major types of negotiable instruments and documents, such as bills of exchange, checks, promissory notes, warehouse receipts and negotiable bills of lading.

Because the Model law assumes that there is a paper equivalent to the electronic transferable record, one can infer that the Model Law is not intended to govern an electronic transferable record that does not have a paper analog⁽¹⁹⁾. This is a theoretical exclusion. If a jurisdiction has adopted a type of electronic

(15) MLETR art. 1(1).

(16) This definition excludes instruments and documents that do not transfer rights by the transfer of the instrument or document. Thus, for example, non-negotiable bills of lading are not within the scope of the Model Law. As an example of what might be considered a transferable document or instrument in some jurisdictions and not others, the Commentary mentions Letters of Credit. Explanatory Note to the UNCITRAL Model Law on Electronic Transferable Records para. 28(a). I know of no jurisdiction where a letter of credit would be a transferable instrument, and to the best of our knowledge, a letter of credit never functions as a negotiable instrument. I suspect this made its way in the commentary from a statement made during a Working Group session. Because the Commentary often incorporates off-hand statements made by members of the Working Group, the Commentary should be taken with some caution as a basis for determining the meaning of the Model Law.

(17) MLETR art. 2.

(18) Explanatory Note to the UNCITRAL Model Law on Electronic Transferable Records, para. 38.

(19) Ibid at para. 28(c).

transferable record that does not have an analogous paper transferable record, then not only does the Model Law not apply, but there would be no reason for it to apply. The electronic transferable record would exist without the Model Law. Because the creation of a purely electronic transferable record, one that had no equivalence as a paper document, would always require the conscious intent to do so, these purely electronic records would never rely on the Model Law as a basis for their validity and enforcement as there would need to be other enabling law to provide for their validity.

b. Transferability and Negotiability

Consistent with prior UNCITRAL instruments in electronic commerce⁽²⁰⁾, the Model Law to the extent possible, does not create any substantive rights or duties beyond those in existing laws that govern negotiable instruments and documents, other than, perhaps, for amendments and change of medium. The Model Law is intended to simply enable negotiable instruments and documents to be in electronic form; it is designed to allow parties to do electronically what could otherwise be done with paper documents and instruments.

Because “negotiability” is one of the core substantive legal principles of transferable instruments and transferable documents, what constitutes negotiation, or the effects of negotiation are beyond the scope of the Model Law. This is acknowledged in the commentary to the Model Law: “The Model Law focuses on the transferability of the record and not on its negotiability on the understanding that negotiability relates to the underlying rights of the holder of the instrument, which fall under substantive law”⁽²¹⁾.

In this respect, the ML does achieve the goal of separating the factual question of transfer from the legal question of negotiation. What is absent here is the distinction between the fact of transfer and the legal requirements and consequences of negotiation. These are not the same thing⁽²²⁾. Yet, the Model Law is not totally, nor meant to be, divorced from the concept of negotiation, for the Model Law is intended only to apply to negotiable instruments and documents, and not to non-negotiable instruments and documents⁽²³⁾.

(20) See e.g. United Nations Convention on the Use of Electronic Communications in International Contracts (New York, 2005).

(21) Explanatory Note to the UNCITRAL Model Law on Electronic Transferable Records, para. 20.

(22) Thus, for example, under American Law, “negotiation” of a negotiable instrument payable to an identified person requires not only transfer of the instrument but also the endorsement by the holder. Uniform Commercial Code sec. 3-201.

(23) Explanatory Note to the UNCITRAL Model Law on Electronic Transferable Records at para.21. (MLETR does not apply to non-negotiable instruments or documents). See also, MLETR art. 2: that defines transferability in the general language of negotiability: “Transferable document or instrument”

Thus, although the definition of “transferable document or instrument” speaks in terms of transferability, it necessarily includes the requirement that the instruments and documents be negotiable as well. What constitutes the specific elements of negotiation, of course, is determined by existing laws that provide the legal requirements that accompany an issuance and transfer of an instrument or document to create and transfer the legal rights in the instrument or document⁽²⁴⁾.

IV. Reliability

A constant tension throughout the work of the Working Group was the extent to which the Model Law should be enabling and thereby leave choice and risk to the parties or should be regulatory. This tension can be seen in the provisions of the Model Law that address the level of reliability necessary for a method that provides for the creation, transfer, and recognition of electronic transferable records. Article 12 sets out that the method should be:

- (a) As reliable as appropriate for the fulfilment of the function for which the method is being used, in the light of all relevant circumstances, which may include:
 - (i) Any operational rules relevant to the assessment of reliability;
 - (ii) The assurance of data integrity;
 - (iii) The ability to prevent unauthorized access to and use of the system;
 - (iv) The security of hardware and software;
 - (v) The regularity and extent of audit by an independent body;
 - (vi) The existence of a declaration by a supervisory body, an accreditation body or a voluntary scheme regarding the reliability of the method;
 - (vii) Any applicable industry standard; or
- (b) Proven in fact to have fulfilled the function by itself or together with further evidence.

means a document or instrument issued on paper that entitles the holder to claim the performance of the obligation indicated in the document or instrument and to transfer the right to performance of the obligation indicated in the document or instrument through the transfer of that document or instrument.”

(24) See footnote 14, *supra*.

Moreover, this article provides both for an objective ex ante standard of reliability⁽²⁵⁾ and a provable standard after the fact⁽²⁶⁾.

The flexibility and lack of rigid regulatory requirements reflected in the final version of Article 12 provides the best opportunity for the success of the Model Law. Electronic transferable records represent the rights to money and valuable goods. Commercial parties will not use electronic transferable records without assessing the risks involved in having the title and rights to these assets controlled by an electronic system. The parties are in the best condition to assess the risks. If the risks are deemed too high, the parties can choose not to use electronic transferable records or perhaps use a different system.

It is important to appreciate that the Model Law at best provides the most limited framework to achieve the goal of enabling the use of electronic transferable records. The systems necessary to implement the Model Law, to a substantial extent, do not exist and are still developing. Within this milieu, the Model Law is sensibly drafted to allow the development of these systems with little interference.

V. Information Contained in an Electronic Transferable Record

Because an electronic transferable record must comply with the substantive law that governs paper transferable instruments and documents, and as the substantive law of transferable instruments and documents contain specific requirements to identify the information that they must include, the electronic transferable record must contain the same information that is required in a paper-based instrument or document. Lest this obvious point might otherwise be missed, the Model Law provides, “[w]here the law requires⁽²⁷⁾ a transferable document or instrument, that requirement is met by an electronic record if ... [t]he electronic record contains the information that would be required to be contained in a transferable document or instrument”⁽²⁸⁾.

(25) MLETR art. 12(a).

(26) MLETR art. 12(b).

(27) The law never “requires” an instrument or document. This is just imprecise language used throughout the Model Law. This section should read “when the law allows the use of a negotiable document or instrument” to express the meaning intended.

(28) MLETR art 10(1)(a). Lest there be any confusion, there is also a specific article that provides that the electronic transferable record must provide all of the information that would be required not only under the substantive law of negotiable instruments and documents, but also under the substantive law that governs disclosure and other requirements with the use of the instruments and documents:

Nothing in this Law affects the application of any rule of law that may require a person to disclose its identity, place of business or other information, or relieves a person from the legal consequences of making inaccurate, incomplete or false statements in that regard. MLETR, art. 5.

Implicit in this information requirement is that information regarding time and place that would be required or permitted in a paper instrument or document is concomitantly required or permitted in an electronic transferable record. This is expressly provided for in the Model Law⁽²⁹⁾.

By providing a means for which to specify a “place”, I believe the Model Law should be correctly read as providing a legal basis for the parties to specify this. In other words, the consequence of this provision is that it enables a choice of law provision for the limited purpose of designating the location of an electronic transferable record. Because electronic transferable records, by their very nature are intangibles⁽³⁰⁾, and therefore are not in any “place”, a place may need to be specified to the extent that this is necessary.

The Model Law quite sensibly notes that a “location is not a place of business merely because that is ... [w]here equipment and technology supporting an information system used by a party in connection with electronic transferable records are located; or ... [w]here the information system may be accessed by other parties”⁽³¹⁾.

VI. Life Cycle

In what may sound like a type of exercise equipment, the Commentary to the Model Law has created the new commercial law term- the “life cycle”⁽³²⁾.

Also, lest one is concerned that the system may add system information to the ETR that is not required in the paper equivalent, the MLETR provides: “Nothing in this Law precludes the inclusion of information in an electronic transferable record in addition to that contained in a transferable document or instrument”. MLETR, art. 6.

This is explained in the Commentary:

Examples of such additional information include information necessary for technical reasons, such as metadata or a unique identifier. Moreover, such additional information could consist of dynamic information, i.e. information that may change periodically or continuously, based on an external source, which may be included in an electronic transferable record due to its nature but not in a transferable document or instrument. The price of a publicly-traded commodity and the position of a vessel are examples of dynamic information. However, article 1, paragraph 2, of the Model Law precludes inclusion in an electronic transferable record of additional information not permitted under substantive law. Explanatory Note to the UNCITRAL Model Law on Electronic Transferable Records, par. 58.

(29) MLETR art. 13: “Where the law requires or permits the indication of time or place with respect to a transferable document or instrument, that requirement is met if a reliable method is used to indicate that time or place with respect to an electronic transferable record.”

(30) Even using an electronic “token” as the record for an electronic transferable record would not alter this result as the token would be located on an electronic system, which may or may not be the relevant place for purposes of determining the location of the person entitled to the rights under the ETR. See MLETR art. 14. This may be particularly relevant when the system is run by a third-party provider.

(31) MLETR art. 14(1).

(32) See Explanatory Note to the UNCITRAL Model Law on Electronic Transferable Records, paras. 22, 63, 74, 102, 103, 118, 121, 144, 148, 161, and 184.

The “life cycle” of an electronic transferable record includes its creation, transfer and claim for performance. For these events, the Model Law has no special rules, for the Model Law only focuses on those aspects of the life cycle that might differ with an electronic instead of a paper transferable record. Thus, the Model Law has rules where there is a change in the medium, as these changes focus on the electronic aspects of the transaction, and not the underlying substantive rules⁽³³⁾.

The Model Law also has a provision that requires amendments in an electronic transferable record to be identified as amendments⁽³⁴⁾. This is a new substantive rule that adds an information requirement that is not normally required with paper transferable records, and as such, as I will explain below, I believe this provision probably should not be in the Model Law⁽³⁵⁾. At the insistence of a majority of members of the Working Group, it is in the Model Law all the same.

As with many of the provisions in the Model Law, the justification is that the electronic environment creates a unique situation that does not exist with paper-based transactions:

(33) MLETR Article 17.

Replacement of a transferable document or instrument with an electronic transferable record

1. An electronic transferable record may replace a transferable document or instrument if a reliable method for the change of medium is used.
2. For the change of medium to take effect, a statement indicating a change of medium shall be inserted in the electronic transferable record.
3. Upon issuance of the electronic transferable record in accordance with paragraphs 1 and 2, the transferable document or instrument shall be made inoperative and ceases to have any effect or validity.
4. A change of medium in accordance with paragraphs 1 and 2 shall not affect the rights and obligations of the parties.

MLETR Article 18.

Replacement of an electronic transferable record with a transferable document or instrument

1. A transferable document or instrument may replace an electronic transferable record if a reliable method for the change of medium is used.
2. For the change of medium to take effect, a statement indicating a change of medium shall be inserted in the transferable document or instrument.
3. Upon issuance of the transferable document or instrument in accordance with paragraphs 1 and 2, the electronic transferable record shall be made inoperative and ceases to have any effect or validity.
4. A change of medium in accordance with paragraphs 1 and 2 shall not affect the rights and obligations of the parties.

(34) MLETR art. 16:

Where the law requires or permits the amendment of a transferable document or instrument, that requirement is met with respect to an electronic transferable record if a reliable method is used for amendment of information in the electronic transferable record so that the amended information is identified as such.

(35) A state that adopts the Model Law may want to delete this requirement based on the reasons I have provided.

The rationale for requesting the identification of the amended information lies in the fact that, while amendments may be easily identifiable in a paper-based environment due to the nature of that medium, that may not be the case in an electronic environment⁽³⁶⁾.

I believe this misapprehends the nature of amendments to negotiable instruments and documents, both in the paper as well as the electronic realm. Because the issuer has the obligation of performance, only the issuer can amend the terms and obligations of performance. Moreover, since the holder (or party in control with an electronic transferable record) is entitled to the performance that is provided by the transferable record, the holder must accede to any amendments. Since the issuer and the holder both must agree to amendments, they would both be aware of the amendments. This is the case with either paper based or electronic transferable records. Any transferee would either get the original, in which case the transferee would be entitled to the rights of the original, or the transferee would get the amended version, which would give the transferee the rights to the amended version. But in either the case of an amended paper or electronic transferable record, the party entitled to performance should have a clear understanding of the rights for which that party is entitled.

VII. Party Autonomy and Freedom of Contract

The early drafts of the Model Law contained provisions on party autonomy and freedom of contract⁽³⁷⁾. These provisions were carried over wholesale from the UNCITRAL Model Law on Electronic Commerce and the UN Electronic Communications Convention⁽³⁸⁾.

In these earlier UNICTRAL instruments, the concepts of party autonomy and freedom of contract are relevant because these earlier instruments are primarily concerned with the law of contract. Whether these concepts are particularly relevant for electronic transferable records is not as evident. This question was addressed in the early drafts of the Model Law:

[T]he Working Group may wish to consider whether [party autonomy] is appropriate for draft provisions on the use of electronic transferable records, which would generally entail the involvement of third parties⁽³⁹⁾.

(36) Explanatory Note to the UNCITRAL Model Law on Electronic Transferable Records, para. 157.

(37) See e.g., A/CN.9/WG.IV/WP.122, (March 2013):

Draft article 5. Party autonomy:

The provisions of this Law may be derogated from or their effect may be varied by agreement.

(38) *Ibid.*, para. 10.

(39) *Ibid.*

The reason these contract rules cannot be transferred over to the Model Law goes to the basic nature of contracts. Contracts do not normally directly affect the rights of third parties who are not parties to the contracts, and therefore the law of contracts allows the parties maximum freedom to order their own respective obligations. On the other hand, even though the rules in the Model Law are basically procedure rules that set the minimum recognition of electronic transferable records, the reliance on the electronic transferable records may affect third party rights. As to which of the rules might have a collateral effect on third parties, and therefore should not be subject to derogation by the parties, was an issue for which the Working Group could not find any consensus.

The use of electronic transferable records instead of their paper equivalents is a question of party choice. This, therefore, might suggest some level of party autonomy, but this is not party autonomy in the sense this is meant in the law of contract. This is merely the question of consent to use electronic transferable records, and this issue is easily and correctly addressed in the article on consent⁽⁴⁰⁾.

Outside of this question of consent to use electronic transferable records, the Working Group could not agree on which provisions of the Model Law were purely questions driven by the use of electronic means and which sections had some effect on third party rights. This results in a wholly inadequate article that leaves to the enacting jurisdiction the choice of which article should be subject to party choice⁽⁴¹⁾. Normally bracketed language in a model law would give some guidance for the policy choices an enacting jurisdiction should make, but the Model Law avoids this altogether. Instead the explanatory notes suggest:

[A] careful analysis is necessary to ascertain which provisions of the Model Law could be derogated from or varied by the parties. The Model Law leaves this assessment to the enacting jurisdiction, in order to accommodate differences in legal systems. To that end, paragraph 1 contains square brackets, in which the enacting jurisdiction could identify the provisions which could be derogated from or varied⁽⁴²⁾.

The Model Law does give the admonition that any agreement to derogate from the rules should “not affect the rights of any person that is not a party to that agreement”⁽⁴³⁾.

(40) MLETR arts. 7(2) & 7(3). See also, sec VII supra.

(41) MLETR art. 4(1) provides: The parties may derogate from or vary by agreement the following provisions of this Law: [...].

(42) Explanatory Note to the UNCITRAL Model Law on Electronic Transferable Records, para. 52.

(43) MLETR art. 4(2).

I do not know what articles should be included as non-derogable. It seems this problem began with the inclusion of inapplicable contract principles early in the drafting of the Model Law. Instead of excising the entire provision on party autonomy as irrelevant and inapplicable to the Model Law, the Working Group instead left in the Model Law a dysfunctional article that raises an unnecessary question and gives no answer to it.

Our suggestion to an enacting jurisdiction is to delete Article 4 on freedom of contract and party autonomy, and instead add to the article on consent a proviso that parties may consent to the partial application of the Model Law to the extent that the partial application does not affect any third-party rights. This may not answer the question of which articles may be varied or disclaimed, but at least it focuses the question of the consent to use the electronic transferable records and not on the inapplicable question of freedom of contract.

VIII. Consent

Discussions of electronic commerce always generate much discussion on the question of the consent to use electronic commerce. Such was the case in the drafting of the Model Law⁽⁴⁴⁾. Not surprisingly, the Model Law sensibly provides that the choice to use electronic or traditional forms of instruments and documents is subject to party decision⁽⁴⁵⁾.

The Model Law further provides that this choice may be inferred from the fact that the parties are using electronic transferable records⁽⁴⁶⁾. This provision eliminates the fear that some have that parties could actually use electronic transferable records and subsequently deny having consented to do so. I think there is some virtue in pointing out what I think would be obvious result in any dispute on the question.

IX. Interpretation

The Model Law provides a rule of interpretation that appears odd in a model law that is drafted for domestic legislation. The Model Law provides:

This Law is derived from a model law of international origin. In the interpretation of this Law, regard is to be had to the international origin and to the need to promote uniformity in its application⁽⁴⁷⁾.

Some background is necessary to understand this. First, this language

(44) See e.g., United Nations Document A/CN.9/768 paras. 57 & 58 (22 May 2013).

(45) MLETR art 7(2).

(46) MLETR art 7(3).

(47) MLETR art. 3(1).

appeared in the earlier drafts when it was unclear whether the final product would be a model law, a convention or both. As an international convention, this language makes sense. As a model law, less so.

Similar language, however, is found in both the UNICTRAL Model Law on Electronic Commerce⁽⁴⁸⁾ as well as the UNICTRAL Model Law on Electronic Signatures⁽⁴⁹⁾, so this language finds its basis in a pattern of UNCITRAL model laws on electronic commerce that are targeted for domestic enactment, and therefore is not an aberration exclusive to the Model Law⁽⁵⁰⁾.

This history, though, does not suggest it provides any useful guidance for a model law written for domestic adoption. Thus for example, the Model Law on Electronic Commerce provides:

[This article on interpretation] is inspired by article 7 of the United Nations Convention on Contracts for the International Sale of Goods. It is intended to provide guidance for interpretation of the Model Law by courts and other national or local authorities. The expected effect of article 3 is to limit the extent to which a uniform text, once incorporated in local legislation, would be interpreted only by reference to the concepts of local law⁽⁵¹⁾.

That a model law should not be interpreted by local law, and to justify such a conclusion on the fact that a similar result is warranted in the case of a convention on the international sale of goods makes little sense. I suspect that courts in the future will not follow this admonition.

As to the suggestion that for matters not expressly governed by the Model Law, the Model Law should be interpreted “in accordance with the general principles on which this Law is based”⁽⁵²⁾, I believe this is on firmer ground. These general principles are principles of electronic commerce, and not the general principles that govern the substantive laws of negotiable instruments

(48) UNCITRAL Model Law on Electronic Commerce (1996) with additional article 5 bis as adopted in 1998, art 3, https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_commerce.

(49) UNCITRAL Model Law on Electronic Signatures (2001) art. 4, https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_signatures.

(50) The differences between the current text and the earlier Model Laws are the result of efforts by one member of the Working Group to rationalize the text when it became clear there was inadequate support for the deletion of the provision.

(51) Model Law on Electronic Commerce, Guide to Enactment para. 41 (1996).

(52) MLETR, art 3(2). We do not, however, believe, as is suggested in the Explanatory Notes, that these may be yet to be determined principles that may evolve in the future, Explanatory Note to the UNCITRAL Model Law on Electronic Transferable Records, para. 45. The law cannot presently be based on standards that do not exist.

and negotiable documents⁽⁵³⁾.

X. Writing

The most self-evident provision in the Model Law provides that:

Where the law requires that information should be in writing, that requirement is met with respect to an electronic transferable record if the information contained therein is accessible so as to be usable for subsequent reference⁽⁵⁴⁾.

Since the whole purpose of the Model Law is to provide electronic equivalents to paper instruments and documents, it should be enough to provide, as MLETR art 7(1) does, that:

An electronic transferable record shall not be denied legal effect, validity or enforceability on the sole ground that it is in electronic form⁽⁵⁵⁾.

The concern I have with article 8, since the proposition is so obvious, is that it might be interpreted to have another meaning other than its obvious one. It does not⁽⁵⁶⁾.

XI. Signature

Since signatures; primarily endorsements⁽⁵⁷⁾, are part and parcel of negotiable instruments and documents, the Model Law provides a rule for real functional equivalence of signatures. Article 9 states:

Where the law requires or permits a signature of a person, that requirement is met by an electronic transferable record if a reliable method is used to identify that person and to indicate that person's intention in respect of the information contained in the electronic transferable record⁽⁵⁸⁾.

(53) Explanatory Note to the UNCITRAL Model Law on Electronic Transferable Records, par. 44:

The general principles of the law governing electronic communications, namely the principles of non-discrimination against electronic communications, technological neutrality and functional equivalence, which have already been identified and formulated in other UNCITRAL texts, are the fundamental principles underlying the Model Law.

(54) MLETR art. 8.

(55) MLETR art 7(1).

(56) That meaning being that, "Article 8 sets forth a functional equivalence rule for the notion of 'writing' with respect to electronic transferable records only." Explanatory Note to the UNCITRAL Model Law on Electronic Transferable Records, par. 74.

(57) To the extent that there is any question whether there need be a rule for endorsements separate from the generic rule for signatures, the ML provides that an endorsement meets the requirements of the Model Law by complying with the Model Law's requirements for writings and signatures. MLETR art. 15. It is not clear to us that this rule is necessary, as it appears to be covered by the article on signatures. See MLETR art. 9. Article 15 does no harm, however, and it might avoid unnecessary confusion if a court were to seek a distinction between an endorsement and another type of signature.

(58) MLETR art. 9.

Correctly applying the concept of functional equivalence, instead of searching for some electronic equivalent to signatures, the Model Law instead sensibly provides that as long as the purpose of a signature is met, the requirement for a signature is met. The purpose is to connect the person to the content of the electronic record⁽⁵⁹⁾.

XII. Control and Functional Equivalent

A central tenet of Model Law is the concept of control. Using a well-established statement of the concept, I can conclude:

A person has control of an electronic [transferable record] if a system employed for evidencing the transfer of interests in the electronic [transferable record] reliably establishes that person as the person to which the electronic [transferable record] was issued or transferred⁽⁶⁰⁾.

This functional definition is at the core of the Model Law, as “control” provides the method to determine the party that has the rights embodied in an electronic transferable record.

The concept of control was the part of the Model Law that certain members the Working Group found most perplexing, and it took more of the Working Group’s time and effort than any other aspect of the Model Law. The difficulty mostly derived from the failure of some to appreciate the function of “functional equivalent”.

It has long been understood that possession is a general requirement to claim the legal rights provided by negotiable instruments and documents. What must be appreciated, though, is why possession is necessary. As there is only one document or instrument representing the right to the goods or money, possession provides the means to determine who is entitled to the rights⁽⁶¹⁾. Thus, the function of possession is to determine who is entitled to the rights. It is this function of possession, and not possession itself, that needs to be replicated electronically, and for which control provides.

Some sought to find an electronic equivalent to possession, not an electronic equivalent to the function of possession. Thus, much thought went into how

(59) A signature can serve three functions: to acknowledge receipt of the content, to acknowledge understanding of the content, and to associate oneself with the content. All three functions require a connection between the signature and the content.

(60) American Uniform Commercial Code. sec. 7-106(a).

(61) We note there is still some practice to issue multiple copies of a bill of lading. In this case, the issuer assumes the risk of multiple claims. If the system that provides for control allows multiple parties to have control, the issuer simply assumes the same risk as with multiple paper bills of lading.

one might replicate the uniqueness or the originality that one would have with a single paper document in order to electronically replicate possession.

This, of course, misses the meaning of functional equivalent as it applies to possession for transferable instruments and documents. What is necessary is a means to provide for a single claim for the money or goods the record represents.

This constant struggle to find the electronic equivalent of possession resulted, for example, in several preliminary drafts provided for a concept of “de facto” control⁽⁶²⁾, as if one could have the electronic equivalent of possession without the rights⁽⁶³⁾. Besides the fact that this delved deeply into the underlying substantive law; an inquiry outside the scope of the Model Law⁽⁶⁴⁾, it also showed the continued confusion between the equivalence of possession and the function of possession.

Does the final and approved version of the Model Law get the concept of control correct? I think so, but only indirectly.

The Model Law provides:

1. Where the law requires or permits the possession of a transferable document or instrument, that requirement is met with respect to an electronic transferable record if a reliable method is used:
 - a) To establish exclusive control of that electronic transferable record by a person; and
 - b) To identify that person as the person in control.
2. Where the law requires or permits transfer of possession of a transferable document or instrument, that requirement is met with respect to an electronic transferable record through the transfer of control over the electronic transferable record⁽⁶⁵⁾.

This is the correct result. If a reliable method is used to establish the party that has control, that party has the rights incorporated in the electronic transferable record, including the rights to transfer or claim performance under it.

Where article 11 provides some possible confusion is its insistence that the starting point is the requirement of possession, and not the question of rights.

(62) United Nations Document A/CN.9/WG.IV/WP.128, para. 21 (14 February 2014).

(63) This might, for example, be a defense against claims for paper based instruments and documents when the person presenting the instrument or document was a thief who had stolen it.

(64) MLETR art. 1 (2).

(65) MLETR art. 11.

Article 11 must be read in conjunction with Article 10. Article 10 provides:

1. Where the law requires⁽⁶⁶⁾ a transferable document or instrument, that requirement is met by an electronic record if: ...
 - (b) A reliable method is used:
 - (i) To identify that electronic record as the electronic transferable record (emphasis is ours).

Does this mean that there is a single “electronic transferable record” as a discrete object or an indication of a single right to performance? The definition of “electronic record”, which emphasizes the record as the repository of information⁽⁶⁷⁾, seems to leave that question open.

The commentary, however, eschewing the essential question of rights, assumes the existence of a discrete electronic object:

Article 10 represents the outcome of discussions originating from the notion of “uniqueness” of a transferable document or instrument. The purpose of that notion is to prevent the circulation of multiple documents or instruments relating to the same performance and thus to avoid the existence of multiple claims for performance of the same obligation⁽⁶⁸⁾.

Although some delegations tried to clarify that the issue was about a singular claim and not a singular discrete object⁽⁶⁹⁾, this point was lost in the commentary:

The “singularity” approach requires reliable identification of the electronic transferable record that entitles its holder to request performance of the obligation indicated in it, so that multiple claims of the same obligation would be avoided⁽⁷⁰⁾.

(66) “Requires” is an unfortunate word usage. The law never requires a transferable record. A transferable record may, of course, be required by the parties as part of a specific transaction, but this is by party choice and not by a legal requirement external to the transaction. The appropriate word should be ‘permitted’, and article 10 should be interpreted this way. See also, footnote 23, supra.

(67) MLETR, art. 2: “‘Electronic record’ means information generated, communicated, received or stored by electronic means, including, where appropriate, all information logically associated with or otherwise linked together so as to become part of the record, whether generated contemporaneously or not.”

(68) Explanatory Note to the UNCITRAL Model Law on Electronic Transferable Records, par. 81.

(69) United Nations Document A/CN.9/897, paras. 66-69 (16 November 2016).

(70) Explanatory Note to the UNCITRAL Model Law on Electronic Transferable Records, par. 84. We assume that “singularity”, as it is used in the Commentary means “unique”. This was not our understanding during the deliberations. The term is neither used in the Model Law itself nor defined in the Commentary, but the Commentary provides that “[o]ne effect of the adoption of the notions of ‘singularity’ and ‘control’ in the Model Law is the prevention of unauthorized replication of an

How Article 10 and its concept of singularity is meant to work with the requirement of control is somewhat unclear. Again, this is a point that is confused by the Commentary. The Commentary appears to assume that the point of control is to prevent multiple copies of the record:

One effect of the adoption of the notions of “singularity” and “control” in the Model Law is the prevention of unauthorized replication of an electronic transferable record by the system⁽⁷¹⁾.

This great search for the singular unreproducible “electronic record” might be an efficacious approach if the electronic transferable records were actually some sort of electronic “token” that could be transferred from party to party. Apparently, such technology does currently exist. The problem with this approach, though, is it is not how records of electronic instruments and documents are currently created, stored and transferred. The systems used today are registry systems where the indication of the party having the right is kept in an electronic database. As long as the registry is current, there is no need for a singular object that one could identify as the electronic transferable record⁽⁷²⁾.

Where does that leave us? For the reasons I have stated, I think the Commentary does not accurately reflect how systems of control presently work or are likely to work in the future. I do not believe, though, that this should ultimately be a hindrance for jurisdictions to adopt the Model Law or some version of it. “Control” is a well-established legal concept that provides for electronic means for keeping track of legal rights. This includes registries for investment securities⁽⁷³⁾, deposit accounts⁽⁷⁴⁾, and warehouse receipts⁽⁷⁵⁾. The Model Law provides the legal basis for the recognition of electronic transferable records. The technology for tracking the rights in electronic transferable records can easily accommodate the broad recognition of “control” provided for in Article

electronic transferable record by the system.”; *Ibid.* at 85; in other words, there is only one transferable record.

(71) *Ibid.* at 85.

(72) Redundant systems that have the same information is common. This does not create a problem of multiple claims as the registries of the redundant servers are kept current, and therefore the same “records” are maintained as uniform among the servers. Moreover, if the future is blockchain, as is often asserted, this should not cause additional problems. “Blockchain”, as a distributed registry, is just another type of registry. But as with current registries, blockchain does not produce a single transferable object.

(73) See e.g., American Uniform Commercial Code. Secs. 8-106 and 9-106.

(74) See e.g., American Uniform Commercial Code. sec. 9-107.

(75) See e.g., American Uniform Commercial Code. sec. 7-106.

11 of the Model Law⁽⁷⁶⁾.

Although the Commentary suggests that there must be a single, discrete object, this is not mandated by the text of article 11 itself. Article 11 only mandates that there is a basis for determining the party with exclusive control. I believe this means the identification of the party that has the rights. This reading, as I have noted, comports with the way that concept of control actually works in commercial law. As such, I believe this is the best reading of article 11, and that this is the reading that will make the Model Law the most attractive for adoption.

XIII. The Model Law and Secured Transactions

Early drafts of the Model Law had a provision that noted that electronic transferable records could be used as collateral in secured transactions⁽⁷⁷⁾. This legal conclusion was never in doubt; to treat electronic transferable records as having the same legal significance as paper transferable instruments and documents necessarily leads to this conclusion as there is no question that the paper instruments and documents can be used as collateral for a secured transaction. The Working Group ultimately concluded that such a provision was unnecessary as it was both obvious as a result of Article 1(2) and outside the scope of the project⁽⁷⁸⁾.

There was some suggestion by UNCITRAL Working Group VI (which has focused on secured transactions) that the Model Law on Secured Transactions should be revised to provide for electronic transferable records as the Model Law on Secured Transactions only provides for paper-based documents and instruments⁽⁷⁹⁾. This possible revision of the Model Law on Secured Transactions appears to have gained no traction; a result I think is correct as there should

(76) Although the Commentary accompanying Article 10 appears to limit the means by which a party may have control, broader methods of recognition are suggested elsewhere in the Commentary:

The Model Law provides generic rules that may apply to various types of electronic transferable records based on the principle of technological neutrality and a functional equivalence approach. The principle of technological neutrality entails adopting a system-neutral approach, enabling the use of various models whether based on registry, token, distributed ledger or other technology.

Explanatory Note to the UNCITRAL Model Law on Electronic Transferable Records, par. 18. We think this further supports our position that the limitations we find in Article 10 and its Commentary should not limit the potential application of the Model Law.

(77) United Nations Document A/CN.9/WG.IV/WP.128/Add.1, para. 50 (17 February 2014):

“Draft article 29. Use of an electronic transferable record for security right purposes “[w]here the law permits the use of a paper-based transferable document or instrument for security right purposes, a reliable method to allow the use of electronic transferable records for security right purposes shall be provided.”

(78) United Nations Document A/CN.9/834, para. 73 (29 May 2015).

(79) United Nations Document A/CN.9/938, Annex (10 May 2018).

not be a problem under the Model Law of Secured Transactions. Although the Model Law on Secured Transactions does require that instruments and documents used as collateral be in paper form, the Model Law of Electronic Transferable Records provides that if the otherwise applicable law requires paper documents or instruments, that requirement is effectively superseded by the Model Law on Electronic Transferable Records⁽⁸⁰⁾.

XIV. The Model Law and Cross Border Transactions

The Model Law provides limited guidance for cross border transactions in article 19:

Article 19. Non-discrimination of foreign electronic transferable records

1. An electronic transferable record shall not be denied legal effect, validity or enforceability on the sole ground that it was issued or used abroad.
2. Nothing in this Law affects the application to electronic transferable records of rules of private international law governing a transferable document or instrument.

Although the Model Law is intended as a model for domestic legislation, one can anticipate that a significant number of transactions will have cross border implications. This is not only true with bills of lading, which by their very nature often creates cross border rights, but also with the use of warehouse receipts and promissory notes when these are used for financing by international firms.

a. Recognition of Foreign Electronic Records

Article 19(1) provides that an electronic transferable should not be denied legal effect on the sole ground that it is issued or used abroad. This rule, of course, only applies in a jurisdiction that has adopted the Model Law or would otherwise apply the Model Law by rules of private international law. In this latter case, the application may be limited by any mandatory domestic law that would not recognize an electronic transferable record.

Although not articulated, article 19(1) would appear to require that the place the electronic transferable record is created be a place that itself would otherwise acknowledge the legality of electronic transferable records. To recognize an electronic transferable record from another jurisdiction assumes there is in fact a valid electronic transferable record from the other jurisdiction to recognize.

(80) MLETR art.1(2).

The comments, however, suggest otherwise: “[P]aragraph 1 also does not prevent recognition in a jurisdiction enacting the Model Law of an electronic transferable record issued or used in a jurisdiction not allowing the issuance and use of electronic transferable records and that otherwise complies with the requirements of applicable substantive law.”⁽⁸¹⁾ I would not rely on this comment as it suggests that a jurisdiction could recognize legal rights created in another jurisdiction that does not allow for these rights. I do not believe domestic law can extend this far.

b. Conflicts of Law/Private International Law

To a large extent, the working group avoided the difficult questions of conflict of laws and correctly assumed these issues were outside the scope of the Model Law. Paragraph (2) of Article 19, which provides:

Nothing in this Law affects the application to electronic transferable records of rules of private international law governing a transferable document or instrument.

At one level this is a non sequitur that is obvious and anodyne. It does, however, raise a substantial unanswered question.

One can see what questions this paragraph does answer. First, to the extent that it provides that the Model Law does not affect rules of private international law that govern non-electronic transferable records⁽⁸²⁾, this is a correct and obvious point as the Model Law does not govern paper transferable instruments and documents.

Also, to the extent that paragraph (2) of article 19 is intended to set out the proposition that the Model Law is not intended to provide new rules of private international law and that electronic transferable records should be understood

(81) Opposing views were expressed in the Working Group:

“Thus, for instance, it was explained that paragraph 1 could not per se lead to the recognition of an electronic transferable record issued in a jurisdiction that did not recognize the legal validity of electronic transferable records.” A/CN.9/869, para 125 (20 May 2016).

“[I]t was noted that an electronic transferable record might be issued in a jurisdiction that did not recognize the use of electronic transferable records, and that recognition of its validity could be sought in a jurisdiction that allowed that use. In that case, it was added, it could be useful to permit recognition of the validity of the electronic transferable record in the latter jurisdiction, provided legal requirements set forth in that jurisdiction were met.” A/CN.9/863, para 79 (20 November 2015).

The official commentary adopted the wrong suggestion.

(82) Para. 187, the first sentence which provides:

“Paragraph 2 reflects the understanding that the Model Law should not displace existing private international law applicable to transferable documents or instruments, which is considered substantive law for the purposes of the Model Law”.

to be governed by existing rules of private international law, the comments provide this result and the reason for it: “The introduction of a special set of private international law provisions for electronic transferable records would lead to a dual private international law regime, which is not desirable”⁽⁸³⁾.

What is left open, though, is what existing rules of private international law should govern electronic transferable records. What might have been useful in the comments is not the answer, which is beyond the scope of the Model law, but instead some indication that parties should not assume that the conflicts rules that govern paper transferable instruments and documents will govern electronic transferable records.

Paper transferable instruments and documents are tangible property, and as such are governed by the law that governs tangible property. Electronic transferable records are intangible and therefore do not have a specific location. With electronic transferable records, the applicable law should be derived from the law that governs rights in intangible property, and not, as with paper transferable records, with the law that governs tangible property.

Probably the question of applicable law would be best dealt with by a choice of law clause in the electronic transferable record. This clause should be effective to the extent that the electronic transferable record did not violate the mandatory law of the enforcing jurisdiction⁽⁸⁴⁾.

XV. What Is Left to Be Done

The Model Law sets out a legal framework to validate electronic transferable records. The Model Law does not provide technological guidance on how this is to be achieved, nor does it provide guidance on how the underlying substantive law of paper instruments and documents can be adjusted to conform to their electronic equivalents.

The Model Law provides general rules for electronic transferable records that allow the electronic transferable record to be recorded, retained and transferred either through a registry⁽⁸⁵⁾, through a token system, or possibly some future technology. Current technology favors registry systems, but irreproducible and transferable tokens are certainly possible in the future.

(83) *Id.*, second sentence.

(84) The Model Law allows the parties to put in the electronic record an indication of time and place. For purposes of an electronic transferable record, I am not sure whether the indication of a place for an intangible actually makes sense or would be effective.

(85) I assume blockchain, which is all the rage for the new dawn in the law, as a distributed registry, is just another registry system, and as such, is provided for in the MLETR.

There are existing systems for promissory notes⁽⁸⁶⁾ and warehouse receipts⁽⁸⁷⁾. These existing systems, with their extensive regulatory frameworks, can be used as guidance for jurisdictions that seek to develop electronic transferable records for these types of negotiable instruments and documents.

For some developing economies, this may be a multi-step process. For example, before warehouse receipts, there must be adequate warehouses⁽⁸⁸⁾. This may entail not only the building of warehouses, but the infrastructure to get the goods to and from the warehouses. Electronic warehouse receipts require not only the law to govern warehouse receipts, but the resources to create functioning registries or other systems to keep track of the electronic transferable records.

The technology for electronic bills of lading exist, but thus far, these have only been used in closed systems. The challenge is to create registries that provide for open systems. Using the Cape Town Aircraft Registry as an example⁽⁸⁹⁾, we know that this will be expensive both to set up and maintain. This will require broad industry support that will only occur when the financial benefits warrant it. Thus far, this has not been the case.

The Model Law lays out a basic legal structure for electronic transferable records. The success of the Model Law will ultimately depend on whether there is a business model that provides enough economic incentive to warrant the costs necessary to create viable technological systems to support electronic transferable records.

(86) At least in the United States, we only have “transferable records” electronic legal instruments that mimic, but are not actually “electronic promissory notes”. American Uniform Electronic Transactions Act sec. 16 (1999). However, these transferable records are available in a national registry and are now in common usage in most real estate transactions.

(87) 7 United States Code sec. 242(h) (1993).

(88) Henry D. Gabriel, “Warehouse Receipts and Securitization in Agricultural Finance” 17 Uniform Law Review 369 (2012).

(89) Aviareto is designated as the Registrar of the International Registry for aircraft objects pursuant to Article 17(2) of the Cape Town Convention on International Interests in Mobile Equipment. <https://www.unidroit.org/useful-links-2001capetown-aircraft>.

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