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Legal issues relating to the use of electronic transferable records

Proposal by the Governments of Colombia, Spain and the United States

Note by the Secretariat

Within the framework of preparation for the forty-sixth session of Working Group IV (Electronic Commerce), the Governments of Colombia, Spain and the United States have submitted to the Secretariat the attached document.

The document in the attached annex is reproduced in the form in which it was received by the Secretariat.



Annex

Contents

	<i>Paragraphs</i>	<i>Page</i>
I. Introduction	1-4	2
II. Electronic transferable records	5-15	3
III. Previous consideration of electronic transferable records by UNCITRAL	16-20	6
IV. Issues to be addressed by the Working Group	21-45	7
V. Industries that would potentially benefit from the work in the field	46-53	12

I. Introduction

1. At its forty-fifth session (Vienna, 10-14 October 2011), Working Group IV (Electronic Commerce) urged member States to provide relevant information to the Secretariat to assist the Secretariat in preparing working documents for its next session.¹ The delegations of Colombia, Spain and the United States of America have prepared this document for that purpose.

2. At its forty-fifth session, the Working Group observed that there is no generalized, internationally accepted legal framework for electronic transferable records.² However, as discussed in this working paper, electronic transferable records currently are used in a variety of domestic and international commercial transactions and many of the legal issues relating to electronic transferable records have already been addressed and resolved in domestic and international laws.³ What is missing is an appropriate degree of harmonization at the cross-border level so as to make international transactions, financing and commerce more effective. These existing models can be used as possible templates for the work of the Working Group. The Working Group now has the opportunity to prepare international standards to provide legal certainty in the use of electronic transferable records.

3. It is precisely the success achieved in a number of domestic systems that suggests the need for an internationally recognized legal framework for electronic transferable records. Yet, without an international legal framework, the benefits achieved through the domestic systems cannot accrue to the ever-growing realm of international trade.⁴

¹ A/CN.9/737, para. 95.

² A/CN.9/737, para. 14.

³ A/CN.9/WG.IV/WP.115.

⁴ Although the practical business concerns regarding electronic transferable records will be mostly similar in different states, part of the challenge will be to have uniform international legal standards that would satisfy differing legal traditions. As the Working Group noted at its last session, this is not likely to be a major problem as legal standards for transferable records are generally consistent among legal traditions (A/CN.9/737, para. 53). Moreover, as the underlying substantive law of transferable records is sufficiently settled, the concern of the Working Group should be to provide a mechanism to allow these existing substantive rules to work in an electronic milieu.

4. It is also important to note that the use of electronic transferable records is only a part of a broader set of legal issues associated with electronic commerce. Related issues include identity management and single windows.⁵ Thus, the current consideration of electronic transferable records by the Working Group is not to the exclusion of other important work in other areas of electronic commerce, but is, in fact, an element of a larger comprehensive project in electronic commerce.

II. Electronic transferable records

A. Transferable records

5. A “transferable record” is a general term that refers both to a transferable instrument as well as to a transferable document of title. An electronic transferable record is the electronic equivalent of a transferable record.

6. Transferable instruments are financial instruments that may contain either 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, checks, and certificates of deposit.

7. Transferable documents of title are documents that, in the regular course of business or financing, are treated as adequately evidencing that the person in possession of or named in the document is entitled to receive, hold, and dispose of the document and the goods represented by the document (subject to any defences 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.

8. The fundamental distinction between an instrument and a document of title is that an instrument represents money while a document of title represents goods. For example, a promissory note is a transferable instrument that evidences an obligation to repay a debt. A negotiable warehouse receipt is a document of title that represents an obligation by the warehouse operator to deliver goods stored in the warehouse to the holder of the warehouse receipt.

B. Distinguishing “negotiable” from “non-negotiable”

9. Transferable instruments and transferable documents of title may be either negotiable or non-negotiable. A negotiable transferable record is one where, by its terms, the money is payable (instrument) or the goods are deliverable (document) to the bearer of the record or to the person named in the record. Thus, the essence of negotiability is the ability to convey the rights in the money or goods by the transfer of the record itself. A transferable record that does not provide these rights is a non-negotiable transferable record.

⁵ For example, an examination of the liability of trusted third parties and other service providers is an issue for not only electronic transferable records, but also identity management and single windows.

10. Normally a negotiable transferable record can be “negotiated” (the rights pass with the record) independent from claims in the underlying transaction. In other words, the rights acquired from a negotiable transferable record are not subject to the defences that arise from the underlying transaction that was basis for the creation of the negotiable transferable record.⁶ It is this ability to convey the rights established by the record free of underlying defences that is the essential difference between the “transfer” of a transferable record and the “negotiation” of a transferable record.

C. Electronic transferable records

11. Traditionally, both transferable instruments and transferable documents of title have been paper-based. There are presently both existing and developing models for electronic transferable records in various domestic and international laws.

12. For example, certain negotiable electronic transferable instruments are recognized under United States law.⁷ Negotiable electronic transferable documents are also recognized under United States law.⁸ The use of electronic transferable records goes back almost 20 years in the United States, with federal regulations providing for the use of electronic warehouse receipts for the cotton industry.⁹

13. Activities in some countries indicate the usefulness of, and expected benefits from, the use of negotiable or transferable electronic records. Korea has enacted legislation and has established infrastructure for the creation of electronic notes and bills based on a registry. Japan’s Electronically Recorded Monetary Claims Act¹⁰ provides what is considered an electronic replica or electronic substitute of paper negotiable instruments. This legislation, and the corresponding registry-based infrastructure, regulates a new concept (the Electronically Recorded Monetary Claim – ERMC) that, while being typified as a new category of personal rights corresponding to a money debt (including account receivables), is to work in many respects like electronic financial instruments and is to replace paper bills and notes

⁶ Thus, for example, if a buyer paid for goods with a promissory note, the fact that the buyer may have a claim against the seller for defects in the goods would have no effect on the rights of the holder of the promissory note. The holder would not be subject to the defense of the buyer as to the quality of the goods.

⁷ Uniform Electronic Transactions Act, Article 16. This only provides for electronic promissory notes (two party instruments) and not electronic three-party instruments (e.g., checks and drafts). Electronic promissory notes are also provided for under the Electronic Signatures in Global and National Commerce Act, 15 U.S.C. §§ 7001-7031, however in this Act the electronic promissory notes are limited to use in real estate transactions. Three-party electronic transferable instruments are not provided for in either the Uniform Electronic Transactions Act or the Electronic Signatures in Global and National Commerce Act. However, for purposes of near instantaneous transfer of funds, this has been achieved by the now ubiquitous use of money wire transfers. Also common today, and continuing in development, is the use of check truncation (the use of a digital copy in lieu of the original instrument in the bank collection system).

⁸ United States Uniform Electronic Transactions Act (Article 16), Uniform Commercial Code (Article 7: Documents of Title), and Warehouse Act.

⁹ United States Code of Federal Regulations Title 7—Agriculture, Part 735—Regulations for the United States Warehouse Act.

¹⁰ Act no. 102 of June 27, 2007.

with a swifter and more functional and useful alternative.¹¹ As negotiable money claims documented in electronic records, ERMCs provide a more flexible financial instrument, not only because it is in an electronic form (with all ensuing advantages), but also because the substantive regime of negotiability has been slightly modified and adjusted to take advantage of the electronic form. To that extent, it is expected that ERMCs will revolutionize the financing of business, particularly for small and medium size enterprises.

14. Colombia has also enacted relevant legislation. The current Colombian legislation on electronic commerce provides for the recognition of electronic records and electronic signatures. These rules are, to a large extent, based on the relevant UNCITRAL model laws. Rules on electronic commerce already allow for the issuance and storage of commercial invoices in electronic form.¹² One particular feature of the Colombian legislation is that a paper commercial invoice is considered a negotiable instrument. A commercial invoice may therefore be transferred with all the consequences attached to its negotiable character, which eases access of the issuer to financial services based on invoice discount. On these grounds, Colombian legislation also permits the issuance and transfer of electronic invoices as negotiable instruments.¹³ Regulations addressing the issuance and negotiation of electronic invoices are currently being drafted. The drafting process has provided a clear indication of the interest and benefits of having rules on electronic transferable records for both the commercial and the financial sector. Although specific rules on the matter have not yet been approved, and precisely in light of the mandate given by the Commission to the Working Group, Colombian Decree 19 (10 January 2012) modifies the Colombian legislation on electronic commerce so as to enable Certification Authorities to issue certificates for the use of electronic transferable records, as well as to provide services for their registration, custody, recording and storage.

15. There is also a growing body of international law that recognizes electronic transferable records. As stated below, this includes UNCITRAL texts.¹⁴ It is important to note from the outset that the Working Group, in its work on the United Nations Convention on the Use of Electronic Communications in International Contracts (Electronic Communication Convention), specifically chose not to include transferable records within its scope.¹⁵ It is hoped that the Working Group can now complete this postponed work in transferable records.

¹¹ An ERMC is created in an electronic record that is registered with a recording institution and is freely transferable to a third party. Such transfer is substantially equivalent to a negotiation.

¹² Act no. 962, July 8, 2005.

¹³ Act no. 1231, July 17, 2008.

¹⁴ UNCITRAL Model Law on Electronic Commerce (1996); United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea (2008).

¹⁵ Electronic Communications Convention, Art.2(2): "This Convention does not apply to bills of exchange, promissory notes, consignment notes, bills of lading, warehouse receipts or any transferable document or instrument that entitles the bearer or beneficiary to claim the delivery of goods or the payment of a sum of money."

III. Previous consideration of electronic transferable records by UNCITRAL

16. The topic of electronic transferable records has been before the Working Group practically since it started addressing matters in the field of electronic commerce. While the Working Group highlighted and discussed the relevance of this topic on several occasions, a specific line of work thereupon has been repeatedly postponed for different reasons.

17. In preparing the 1996 UNCITRAL Model Law on Electronic Commerce, the Working Group addressed electronic transferable records at a rather late stage.¹⁶ The problems attached to the regulation of the electronic replica of negotiable instruments or documents were quickly perceived, and it became clear that the mere formulation of the general principles for media neutrality would not address all difficulties and the related issues. However, it was proposed that an article dealing with negotiable transport documents, which operate as documents of title to goods in some jurisdictions, could be included in the Model Law. The transport industry had undertaken steps to use electronic versions of negotiable transport documents, but this was occurring in the absence of a regulatory system.¹⁷ On this basis, Articles 16 and 17 of the Model Law provided a model for the regulation of the use of electronic negotiable documents in the context of the contracts for the carriage of goods.¹⁸

18. In light of the many questions raised by electronic transferable records, and the expected benefits of an instrument addressing the topic, the Working Group encouraged consideration of the issue as a possible subject of future work. Some documents were issued with this purpose, again focusing the analysis on documents of title, but at the same time broadening the scope to the existing systems for the electronic transfer of rights and interests in goods.¹⁹

19. As the issue of electronic transferable records was relevant to the maritime transportation industry, it was addressed by the 2008 United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea (the "Rotterdam Rules"). The Rotterdam Rules provide a legal framework for the use of negotiable (and non-negotiable) electronic transport records that has extensively benefitted from the works and discussions previously undertaken in UNCITRAL on the topic and on models provided by some national rules. The Rotterdam Rules may provide a useful framework for the Working Group to continue work on transferable records more generally. However, the Rotterdam Rules are just one possible model that deserves the attention of the Working Group as they deal only with transport

¹⁶ A/CN.9/387, para. 177; A/CN.9/406, paras. 178-179.

¹⁷ See in this regard proposals by the United Kingdom (Annex II to the A/CN.9/WG.IV/WP.66) and the United States of America (Annex to A/CN.9/WG.IV/WP.67); A/CN.9/407, paras. 115-117; A/CN.9/WG.IV/WP.69.

¹⁸ Part Two of the 1996 Model Law on Electronic Commerce has been followed in, e.g., Part 3 of the Uniform Electronic Commerce Act of Canada.

¹⁹ A/CN.9/421, para. 106; A/CN.9/WG.IV/WP.90.

documents and do not address all potential problems relating in general to negotiable instruments and documents.²⁰

20. As stated earlier (para. 15 above), electronic transferable records were also addressed during the negotiation of the Electronic Communications Convention. In this Convention, negotiable documents were again left aside and expressly excluded from the scope of application in Article 2.²¹ The primary reasons for this exclusion were that the issue was considered as going beyond the mandate of the Working Group as well as the belief that the elements needed in a legal regime governing electronic transferable records had not yet been fully developed.²² The Working Group believed that the topic was an important one that required additional consideration. In consequence, the Explanatory Note to the Electronic Communications Convention specifies: “the Convention does not apply to negotiable instruments or documents of title, in view of the particular difficulty of creating an electronic equivalent of paper-based negotiability, a goal for which special rules would need to be devised.”²³ The task now entrusted to the Working Group is the logical and natural continuation of a line of work that was left open in previous sessions, and in respect to which significant advances have taken place in national rules and in practice.

IV. Issues to be addressed by the Working Group

A. Issues identified in other work of UNCITRAL

21. During the discussions of the previously referenced instruments, some of the issues and problems that will need to be addressed in relation to feasible rules applicable to electronic transferable records were identified. Some of these issues directly relate to the features that a legal framework dealing with the issuance and use of electronic transferable records should address.²⁴ These refer to the conditions for the creation of an electronic transferable record, the types of transferable negotiable documents that may be issued in electronic form (financial instruments, documents of title, etc.), the conditions for the transfer, the identification of the holder and the standards required for that purpose, as well as the precise determination of the rights attached to the record (something which, however, relates to the substantive aspects of negotiable instruments).²⁵

²⁰ Private, closed systems of electronic records (transport documents) include the Bill of Lading Electronic Registry Organization (BOLERO) system, which is run by a consortium of banks and has matured to the point where it may provide useful guidance for further work regarding transferable records. Experience with BOLERO suggests that, should the Working Group consider registry issues, it could consider third-party rights that may be asserted against the holder of rights in a registry system.

²¹ See note 15 *supra*.

²² Electronic Communications Convention, Text and Explanatory Note, para. 81.

²³ Electronic Communications Convention, Text and Explanatory Note, para. 7. See also A/CN.9/484, paras. 88 *et seq.*

²⁴ See section IV(b) of this paper. See also A/CN.9/484, paras. 88 *et seq.*

²⁵ The Working Group would not address substantive legal rights underlying these instruments and documents.

22. Other questions raised refer to problems that may be seen as ancillary to the topic of electronic transferable records and common to the use of electronic means for business purposes, but which could ideally be discussed by the Working Group. These topics include the liability of third party service providers, liability for errors in communications performed through the employment of “electronic agents” (automated systems),²⁶ or in general the role and liability of trusted third parties and other intermediaries in the transfer of documents or rights (or in the completion of similar transactions). The work that the Working Group may undertake in relation to these questions would have a beneficial impact in other matters that are closely related to the use of electronic transferable records, including identity management in an electronic environment (something that is crucial for negotiability in the digital space) or the completion of documentary formalities in export/import operations (involving customs and any systems feasibly based on single windows facilities).

23. Previously in the Working Group, the legal regime for the use of electronic transferable records was discussed in connection with other topics, such as trade documentation, including bills of lading, identity management, single windows systems, etc., because of the many legal issues that they all share. These related topics generally encompass issues relating to the transfer of personal rights or of property rights in tangible or intangible property through electronic means.²⁷ Some aspects of each will be relevant to considering issues under transferable records.

B. Basic Principles

24. The Working Group during its deliberations at its forty-fifth session identified at least five basic principles that are necessary for electronic transferable records: (i) electronic equivalence of writing; (ii) electronic equivalence of signature; (iii) uniqueness and guarantee of singularity; (iv) transfer of rights; and (v) identification and authenticity of the holder.²⁸

25. For each of these concerns there are existing models that the Working Group may want to consider.

1. Writing

26. Although likely one of the least problematic issues that needs to be addressed, the question of the electronic equivalent of a writing is an essential aspect of electronic transferable records. In the past, it has been understood that transferable records must be in writing and signed. The UNCITRAL Model Law on Electronic Commerce recognized that the flexible doctrine of “functional equivalence” suffices as a substitute for the requirement that a record be in writing.²⁹ Electronic Communication Convention and the Rotterdam Rules have also adopted this principle.³⁰ This outcome is well established in several domestic electronic

²⁶ See A/CN.9/WG.IV/WP.104/Add.4, paras. 11-13.

²⁷ See A/CN.9/WG.IV/WP.69, para. 83; A/CN.9/421, para. 61.

²⁸ A/CN.9/WG.IV/WP.115.

²⁹ UNCITRAL Model Law on Electronic Commerce (1996), Articles 5-10.

³⁰ Electronic Communications Convention and the Rotterdam Rules.

commerce laws as well, many of these derived from the UNCITRAL Model Law on Electronic Commerce.

2. Signature

27. As with writing, there is substantial domestic and international law adopting a “functional equivalence” standard for signatures. This includes the UNCITRAL Model Law on Electronic Signatures as well as the Electronic Communications Convention.

28. Yet, there is also support, including in the Rotterdam Rules, for dispensing with the signature requirement altogether for transferable records. In this latter case, the assumption is made that the function of the signature is to prove the right of ownership and transfer, and since the concept of “control”, which is embedded in these rules, meets these concerns, a signature is not required.

29. Either approach has much to commend it, and there are numerous functional models in both international and domestic law for the Working Group to consider.

3. Uniqueness and guarantee of singularity

30. With traditional paper transferable records, there is the assumption that there is only one unique and singular copy of a record.³¹ This assumption is not necessarily consistent with electronic transferable records. At present, there are two models relevant to the uniqueness and guarantee of singularity of electronic transferable records: (i) registry system and (ii) token system.

31. In a registry system, the creation, issuance and transfer of electronic transferable records are recorded in a central registry. Because the registry records the entitlements of the electronic transferable record for the party who has these rights, there is no reason to require a unique and singular record for these rights. In addition, to the extent that the doctrine of control replaces the need for physical possession, as discussed below, the registry also meets the requirements of control.

32. Registry systems are quite common today and are well developed and effective.³² For example, Section 16 of the United States Uniform Electronic Transactions Act provides for a registry system for electronic transferable instruments.³³ The United States Uniform Commercial Code also provides for electronic chattel paper in response to requests from the automobile financing

³¹ There are, of course, whole bodies of the law that deal with questions of fraud and forgery with the paper copy of the record.

³² The discussion in this paper is limited to registry systems for electronic transferable records. There are also examples of successful international registries for security rights. Most prominent is the aircraft registry for the Convention on International Interests in Mobile Equipment (“Cape Town Convention”), which provides a registry for leases and security rights for aircraft. Another example is United States Uniform Commercial Code Article 9: Secured Transactions section 9-105 (governing electronic chattel paper), which was enacted as a response to requests from the auto financing industry to foster the use of electronic chattel paper.

³³ The Official Comments state that “A system relying on a third party registry is likely the most effective way to satisfy the requirements ... that the [electronic] transferable record remain unique, identifiable and unalterable, while also providing the means to assure that the transferee is clearly noted and identified.”

industry to foster wider use of electronic chattel paper.³⁴ Both of these laws have provided the basis for the success of electronic transferable records in the United States.

33. The United States experience with registries for electronic negotiable records goes back twenty years to the introduction of the federally mandated electronic registry for cotton warehouse receipts.

34. Another example of a domestic registry system for electronic transferable records is provided in the Commercial Act of the Republic of Korea, which enables electronic bills of lading and establishes the legal equivalence between paper-based and electronic bills of lading managed in an electronic title registry.³⁵

35. For the question of uniqueness and singularity, a second model is the “token” system; a token being the electronic equivalent of a unique paper document. The possibility of an electronic token as the equivalent of a paper document has long been recognized as a possibility. Thus, for example, Article 17 of the Model Law on Electronic Commerce recognizes the need for a unique electronic record but does not specify how this is to be done: it simply requires that “a reliable method is used to render such data message or messages unique.”³⁶

36. Likewise, Article 9 of the Rotterdam Rules provides for the possibility of a unique and singular electronic transferable document. Eschewing any specifics on how this could be achieved, the Rotterdam Rules provide discretion to the parties in developing procedures that satisfy certain requirements rather than identifying a particular mechanism that must be followed in all cases.³⁷

37. By contrast, while the Working Group, in drafting the Electronic Communications Convention, recognized uniqueness as a requirement for electronic transferable records, the Working Group acknowledged that finding a solution for that problem required a combination of legal, technological and business solutions, which had not yet been fully developed and tested. Thus, as discussed above, the Electronic Communications Convention avoided the issue when it excluded electronic transferable records from its scope.³⁸

4. Physical possession and transfer of rights by delivery

38. There are developed and functioning models for the functional equivalent of physical possession and the transfer of rights by delivery. This is achieved by the concept of “control” in most legal models that govern electronic transferable records. The person in control of the electronic transferable record is considered the holder who is capable of enforcing the rights contained in that electronic transferable record. Where control of an electronic transferable record is used as a substitute for possession of transferable paper, transfer of control serves as the

³⁴ United States Uniform Commercial Code Section 9-105.

³⁵ A/CN.9/692, paras. 26-46.

³⁶ UNICTRAL Model Law on Electronic Commerce, Article 17.

³⁷ Rotterdam Rules, Article 9 (“[t]he use of a negotiable electronic transport record shall be subject to procedures”).

³⁸ Electronic Communications Convention, Article 2(2).

substitute for delivery of the electronic transferable record. Under current models, control may also be achieved through the token and the registry systems.³⁹

39. Under the token model, the identity of the person in control of the electronic transferable record (the holder) is contained in the electronic transferable record itself, and changes in ownership (e.g., assignments) are noted by modifications made directly to the electronic transferable record. Under this model, establishing the owner of the electronic transferable record requires a system to maintain careful control over the electronic record itself, as well as the process for transfers of control. As with transferable paper record, there may be a need for technological or security safeguards to ensure the existence of a unique “authoritative copy,” that cannot be copied or altered and can be referenced to determine the identity of the owner (as well as the terms of the electronic transferable record itself).

40. Under the registry model, the identity of the owner of the electronic transferable record is contained in a separate independent registry. Under this model, establishing the owner of the electronic transferable record requires control over the registry. The uniqueness of a copy of the electronic transferable record itself becomes less important or irrelevant as long as there is a means to verify the integrity of the electronic transferable record recorded in the registry.

41. The control model has proven to be an effective and efficient method for substituting the requirement of physical possession of documents in electronic transactions. For example, in the field of investment securities, acknowledging that in modern business practices it is impractical to transfer millions of physical shares of securities daily, since 1992, the United States provided in their law for the concepts of “control” to substitute explicitly for the physical possession and transfer of investment securities.⁴⁰ Importantly, the Unidroit Convention on Substantive Rules for Intermediated Securities (Geneva, 2009) provides for recognition of a “control agreement.”

42. Likewise, for the last decade, the United States law that governs secured transactions in personal property has provided for “control” over intangible assets that would be tangible if not in electronic form.⁴¹

43. Specifically as for negotiable electronic transferable records, the United States law has extended the concept of control to cover both electronic transferable instruments⁴² as well as electronic transferable documents.⁴³ Other domestic laws

³⁹ Several legal systems for electronic transferable records have adopted, or accommodate, a registry model. One example under United States law is section 16 of the Uniform Electronic Transactions Act (which governs electronic transferable instruments), which provides for systems based on registries. The Official Comments state that “A system relying on a third party registry is likely the *most effective way* to satisfy the requirements ... that the [electronic] transferable record remain unique, identifiable and unalterable, while also providing the means to assure that the transferee is clearly noted and identified.”

Another domestic law that accommodates registry systems include Article 862 of the revised Korean Commercial Act, enacted on 3 August 2007 (Law No. 9746), which enables electronic bills of lading. It establishes the legal equivalence between paper-based and electronic bills of lading managed in an electronic title registry.

⁴⁰ United States Uniform Commercial Code § 8-106.

⁴¹ Uniform Commercial Code Article 9: Secured Transactions.

⁴² Uniform Electronic Transactions Act, section 16 (Transferable Records), and the Electronic Signatures in Global and National Commerce Act, section 201 (Transferable Records). Since the

such as the Commercial Act of the Republic of Korea also provide for “control” as a means for the possession and transfer of electronic documents of title.⁴⁴

44. The Rotterdam Rules also provide for control as a basis to meet the possession and transfer requirements for electronic transferable documents.⁴⁵ Thus, in addition to existing domestic models, there is also international recognition of the doctrine of “control” as meeting the possession and transfer elements of transferable records in electronic transactions. Although the Rotterdam Rules are not yet in force and do not provide practical experience in this area, the aforementioned domestic examples have a long and successful history of use.

5. Identification and authentication of holder

45. When control is used as a substitute for possession, the party who has the right of control is automatically identified, and therefore the ability and need to identify the holder that would otherwise be achieved by possession of the instrument or document is effectively achieved. This may be accomplished by having evidence of the identity of the person integrated into the authoritative copy itself, or by having the authoritative copy logically associated with a method for tracking the identity of the person, such as a registry, so that a person examining the authoritative copy is also alerted, and has evidence of control. Thus, the concept of “control” is typically defined in a manner that focuses on the identity of the person entitled to enforce the rights embodied in the electronic transferable record.

V. Industries that would potentially benefit from the work in the field

46. Work by UNCITRAL in the field of electronic transferable records will both improve practices in industries that currently utilize electronic transferable records and create an environment in which other industries may begin to use electronic transferable records. Examples of some of the relevant industries are identified below. It should be expected that other industries may be identified through discussion in the Working Group.

47. It should be noted that achieving greater harmonization and efficiency in these areas of commerce and trade can provide a significant boost for developing economies both through adoption of modern efficient e-commerce laws, and through facilitation of trade by removing obstacles resulting from differences between the commercial laws of trading partners.

enactment of the Uniform Electronic Transactions Act, a whole real estate industry has evolved in the United States that provides for real estate mortgages and the promissory notes that accompany them to be effectuated electronically through the Mortgage Electronic Records System.

⁴³ Uniform Commercial Code (UCC), Articles 7-106 (Control of Electronic Document of Title), 7-501 (b) (Warehouse Receipts and Bills of Lading: Negotiation and Transfer).

⁴⁴ Article 862 of the revised Korean Commercial Act, enacted on 3 August 2007 (Law No. 9746) (article enabling electronic bills of lading).

⁴⁵ Rotterdam Rules, Article 1, paragraphs 21 and 22, and Articles 50 and 51.

A. Documents of title

48. In agricultural economies, electronic warehouse receipts will allow for increased financing based on warehoused goods.⁴⁶ Experience in domestic agricultural markets where electronic warehouse receipts have been used indicates that the benefits of electronic warehouse receipts over paper warehouse receipts includes reduced transaction costs, easier transferability, greater security for holders, and a wider use of warehouse receipts in general. For agricultural producers, this equates to a significant increase in the benefits that accrue from the use of warehouse receipts. Benefits include increased access to, and larger amounts of, credit, the ability to respond to different levels of supply and demand from fluctuating market conditions, and the ability to sell in bulk and thereby gain additional profits from volume. Buyers likewise gain by being able to buy in volume and regulate the quality of the goods. These benefits all suggest the importance of electronic warehouse receipts, particularly in developing agricultural economies where they are not widely used today.

49. The preamble of the Rotterdam Rules expressed concern that the current legal regime governing the international carriage of goods by sea fails to adequately take into account modern transport practices, including the use of electronic transport documents. As a result, the Rotterdam Rules contains a chapter (Chapter 3) devoted to electronic transport records that recognizes that parties may use either paper or electronic bills of lading. This Working Group might wish to consider rules applicable to the use of electronic transport documents outside of the scope of the Rotterdam Rules as well as rules that could bolster the relevant provisions of the Rotterdam Rules.

B. Instruments

50. Electronic transferable records are currently being used in financial transactions that rely on payment deferment or credit discount, such as discount lines offered by banks.⁴⁷ A negotiable instrument (such as a promissory note) is usually issued; however, the use of a negotiable instrument is sometimes avoided because of the administrative burden associated with the processing of the paper required in these transactions. In these cases, entities have instead resorted to the simple “invoice discount” or “account receivables,” which are based on a mere credit assignment. The ability to issue valid electronic negotiable instruments would create more secure conditions for the transfer of credit and more effective payment claims mechanisms that rely on means that would be immune to encumbrances attached to the paper form.⁴⁸

⁴⁶ Henry Gabriel, “Warehouse Receipts and Securitization in Agricultural Finance,” 17 *Uniform Law Review* 369 (2012).

⁴⁷ As a way of financing commerce, commercial credits are often discounted by a banking entity. This structure is also used in factoring services. These kinds of services usually require the presentation of invoices or other documents that evidence the transactions from which the credit arises.

⁴⁸ In a survey conducted among Spanish banking entities (which included the Spanish Banking Association and the Spanish Confederation of Savings Banks), 100 per cent of respondents stated that they provide financial services dependent on the use of negotiable instruments. Out

51. Electronic issuance and transfer of negotiable records will also have an impact in services or transactions that rely on the use of personal credits or negotiable instruments as collateral. In general, all services or transactions that entail the deferment of payments as a way of financing the debtor benefit from the possibility of the electronic transfer of rights.

52. Electronic transferable records may also benefit the mortgage industry.⁴⁹ The borrower mortgagee issues electronic promissory notes that are bundled in a set of electronic documents that relate to the loan. The security provided by the use of negotiable instruments for payments, among other things, makes possible the purchase of the loan by intermediaries and its re-sale in the secondary market.⁵⁰ The systems currently operating use registries that are audited and accredited by the purchasing or intermediary institutions. In essence, the substantive regime utilized in this electronic system is the same as the one applicable to paper notes. Likewise, many educational institutions offer the possibility of financing tuition fees utilizing promissory notes that are issued electronically.⁵¹ It is important to note that the mortgage industry did not begin to use electronic transferable records until there was a legal framework that provided for them. Likewise, electronic transferable records may provide a basis for the development of new modes of financing that that have not yet been envisaged.

53. There are other sectors that may benefit from electronic transferable records, and electronic transfer of rights. The Working Group may wish to consider those businesses whose services to any extent rely on the transfer of documents or rights. For example, transactions involving an independent guarantee or a letter of credit also benefit from the use of transferable documents.

of them, 83 per cent stated that such services are “very frequent” (the other 17 per cent qualified them as “common”). Likewise, 100 per cent stated that they provide services for credit discount (or entailing the use of credits as collateral) that do not resort to the issuance and transfer of negotiable documents. Out of them, 66 per cent stated that they do so by reason of the inconveniences stemming from the need to depend on the paper for the exercise or transfer of rights. All stated that they found, or would find, benefit from legislation expressly addressing the use of electronic negotiable instruments or the electronic transfer of rights with equivalent conditions or results.

⁴⁹ See note 42 *supra* for relevant experience in the United States.

⁵⁰ As stated in a previous section, this is done through the Mortgage Electronic Registration System under the legal framework provided by the United States.

⁵¹ The U.S. Department of Education’s Office of Federal Student Aid administers a programme for financing education expenses and fees that relies on the use of promissory notes.