The Four Stages in the Electrification of Letters of Credit

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Introduction

In the euphoria accompanying the dot-com revolution of the 1990s, it was first thought by some that electrification1 of commerce could be readily accomplished by legislation directed at removing benighted obstacles to the use of electronic communications. In this process, which usually was statutory and occasionally mandatory, it came to be grudgingly conceded that there were certain exceptions that had to be recognized in favor of solely paper based undertakings, the most notorious of which was the obligation to pay embodied in a negotiable instrument.2 It was, however, thought by many that these exceptions would erode as the

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2 In this paper, the term "electrification" is used somewhat cavalierly to signify the de-materialization of data without reference to a particular format or technology and without any expectation of exclusivity.

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253
particular area accommodated itself to electrification or was bypassed and became an antiquated relic in the museum of commercial devices.\(^3\)

One of the most common tactics was to accord by statutory fiat the same status as paper to electronic data.\(^4\) The insight behind this approach was that if paper was the equivalent of electronic data, commercial interests would opt for electronic data. This approach did not take into account the heavy hand of tradition and the disinclination to incur the expenditures necessary to switch to electronic data, particularly when both a paper and electronic systems must be maintained.\(^5\)

In retrospect, however, the legislative approach was far too optimistic and perhaps too simplistic, revealing that the electrification of commerce cannot be accomplished or perhaps even hastened merely by legalization. Nor is a desire to electrify on the part of some parties or by those who engineer the systems of commerce enough, even when accompanied by financial incentives. In addition, electrification may not be an “all or nothing” proposition, in the sense that electrification must be exclusive. It is possible that some documentation can be in electronic and other documentation in a paper format in the same transaction, an approach which has particular merit as a transitional stage towards full

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\(^3\) To an extent the process of irrelevancy has already happened with the quintessential negotiable instrument, the promissory note. See JAMES ROGERS, THE END OF NEGOTIABLE INSTRUMENTS (2012). The ability to confer super-charged rights on good faith purchasers already exists in the US for alternative commercial undertakings that do not require unique paper containing a highly formulaic recital in connection with letters of credit, personal property lease, and security instrument in personal property. See, e.g., U.C.C. §§ 2A-407 (Irrevocable Promises: Finance Leases) (so-called “Hell or High Water” clause extended to non-consumer finance lease of personality); 8-303 (Protected Purchaser); and 9-403 (Agreement Not to Assert Defenses Against Assignee) (2002).

\(^4\) In their more prescient moments, advocates of ecommerce recognized that the best route was legal equivalency of ecommerce with paper was optimal and that businesses should be given a choice. For example, see ¶ 15 of the Guide to Enactment of the UNCITRAL Model Law on Electronic Commerce.

\(^5\) While not, strictly speaking, a legislative solution, some resistance has been overcome by private mandate. For example, private and public procurement systems have mandated exclusive use of electronic bids and billing. Many of the procurement and billing systems of the US Government and state governments are exclusively electronic. See, e.g., the SAP software system, such as that outlined at http://www.sap.com/solutions/business-suite/erp/financials/billingconsolidation.epx, and E-procurement, Wikipedia, http://en.wikipedia.org/E-procurement.
electrification. Finally, a given area or undertaking may not be uniform with regard to being electrified with some aspects more amenable than others.

For purposes of this paper, the process of the electrification is divided into four stages. The four stages are: 1) the legalization of the utilization of electronic commerce; 2) the systemization of electronic commerce in that field; 3) the acceptance of electronic commerce as the norm for transactions; and 4) the transformation or evolution of the product as a result of the utilization of electronic commerce. The stages suggested here overlap one another to a certain extent and evince a certain arbitrary character regarding their application. Electrification also can proceed at different paces with respect to each stage. It is submitted, however, that these stages offer a useful analytical tool, not only for the understanding of electronic commerce in general, but also for understanding how to obtain its increased utilization in a given field. Because of the limitations inherent in any system of categorization, the character of these stages will be explored more fully subsequently.

The field of letters of credit is used in this paper as an empirical laboratory in which the ongoing progress of electrification is considered, and obstacles, problems, and issues weighed. This paper draws on the insights from this process and formulates proposals towards better understanding it from the perspective of an important instrument of commerce and finance, the letter of credit. There are considerable

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6 An example is eUCP Article e1(a) (Scope of UCP), discussed later, which permits presentation of electronic documents (“records”) “alone or in combination with paper documents.”

7 It is not apparent to the author that there has been any definitive treatment of the process of implementation of electrification, a study that would require drawing upon various disciplines including business, sociology, law, and electronics. The categories suggested here derive chiefly from the author’s experience and studies of electronic commerce over the last 25 years, from when he taught a law school course in EFT in 1985 entitled “electronic funds transfer” (EFT) to the evolution of a new world of initials and concepts. In speaking of “stages”, it is important to qualify the term. It is not used to suggest chronological or sequential steps that must be completed before “moving on” to another “stage”. Perhaps the terms “field” or “area” better capture the notion that there are dimensions of the process of electrification which must be taken into account but these terms have their own limitations as well. Consequently, the author has settled for the term “stages”.

8 For the purpose of this paper, the term “letter of credit” and related terms are, unless otherwise apparent from the context, intended to connote the entire family or genus of letter-of-credit related undertakings, namely definite promises to pay on the presentation of required documents. See, e.g., JOHN DOLAN, THE LAW OF LETTERS OF CREDIT:
advantages to considering electrification from the perspective of letters of credit. Historically, letters of credit have been more amenable to electrification than many types of commercial undertakings. From the mid-nineteenth century, letters of credit were issued telegraphically, and methods of authentication were quickly devised so that there were no objections based on either the lack of a writing or handwritten signature to the enforceability of a letter of credit so issued.

In addition the letter of credit undertaking, unlike the promise contained in a negotiable undertaking, is not merged with the obligation that it contains so that there is no reification of the obligation in a unique piece of paper. While there are formal requirements for an enforceable letter of credit, namely a signed writing, they are minimal and not locked into a

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COMMERCIAL AND STANDBY CREDITS 2-3 (1984). This family includes include so-called commercial letters of credit (misnamed “documentary” in some circles), standby letters of credit, independent guarantees (also known as demand guarantee, first demand guarantees, and bank guarantees), confirmations, pre-advices, and reimbursement undertakings. This typology of letters of credit is merely descriptive, there being no fundamental difference at the abstract level of law between the various members of the genus “letter of credit”.

9 See, e.g., Wilbert Ward, American Commercial Credits 51-54 (1922) (referring to cabling credits between beneficiaries and banks). See also Brown, Shipley & Co., Tourists’ Telegraphic Code for Use Between Brown, Shipley & Co. And Users of their Travelling Credits (E.B. Gilburt ed. 1906) (providing shorthand codes for bank customers to use to telegraph requests for funds and letters of credit to the bank), for a typical booklet that provided for travelers who commonly resorted to travelers letter of credit addressed to anyone, a precursor to the modern credit card.

10 Negotiable instruments are laden with numerous restrictions and requirements, making them cumbersome. See, e.g., U.S. U.C.C. § 3-104 (Negotiable Instrument) (2010) (specifying the following elements of a “negotiable instrument”: (i) unconditional promise or order to pay, (ii) fixed amount of money, (iii) payable to bearer or order at the time it is issued, (iv) on demand or at a definite time, and (v) does not contain any instruction or undertaking other than to pay) and the United Nations Convention on Bills of Exchange and International Promissory Notes art. 3, Dec. 9, 1988, U.N. Doc. A/RES/43/165 (specifying that a valid “bill of exchange” must be (i) in writing, (ii) contain an unconditional order to pay, (iii) an order to pay a definite sum of money, (iii) payable on demand or at a definite time, (iv) dated, and (v) signed by the drawer). These technicalities render negotiable instruments largely irrelevant for many modern commercial uses which has caused them to be by-passed in the real world in many respects. See STEPHEN C. VELTRI, THE ABCS OF THE UCC: ARTICLE 3: NEGOTIABLE INSTRUMENTS AND ARTICLE 4: BANK DEPOSITS AND COLLECTIONS 10-22 (2d ed. 2004). Moreover, what statutes say about negotiability has little to do with what bankers focus on, namely the “magic terms” of order or bearer. In commenting on drafts drawn under commercial letters of credit, the International Chamber of Commerce has had to emphasize that their maturity cannot be linked to the date contained on a bill of lading, a rule that many bankers ignore. See International Standard Banking Practice (ISBP) (2007) ¶ 43(a) [ICC Publication No. 681] which provides that if a draft presented under an LC is drawn other than at sight “it must be
unique “operative letter of credit instrument” from the perspective of law or practice. However by way of useful contrast, some types of letters of credit, particularly those providing payment for transactions in goods, require presentation of unique documents such as bills of lading or warehouse receipts that are consigned to order and thereby have elements of negotiability, in that the undertaking of the carrier or warehouseman is to deliver the goods to the person entitled under the document and who presents it. As will be discussed later, the paper-intense character of presentations under commercial LCs, with its accompanying expenses, has caused corporate users and banks to move towards alternative paperless undertakings such as open account.

For purposes of this paper, the process involving electrification of a letter of credit is loosely divided into three phases, namely: (1) issuance of a

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11 See, e.g., U.N. Comm’n on Int’l Trade Law [UNCITRAL], United Nations Convention on Independent Guarantees and Standby Letters of Credit, art. 7, adopted Dec. 11, 1995, 2169 U.N.T.S. 163 (entered into force Jan. 1, 2000) [hereinafter UN LC Convention], available at http://www.uncitral.org/pdf/english/texts/payments/guarantees/guarantees.pdf (Issuance, form, and irrevocability of undertaking) (operative in “any form which preserves a complete record of the text of the undertaking and provides authentication of its source by generally accepted means or by a procedure agreed upon by the guarantor/issuer and the beneficiary.”); U.C.C. § 5-104 (1995) (“any form that is a record and is authenticated (i) by a signature or (ii) in accordance with the agreement of the parties or the standard practice referred to in Section 5-108(e)”).

12 These credits are properly understood as “commercial” letters of credit, although in some parts of the world misnamed “documentary” letters of credit (because by their very nature all letters of credit are “documentary”). See, e.g., Richard King, Gutteridge & Megrah’s Law of Bankers’ Commercial Credits (8th Ed. 2001).(recognizing the common usage of “documentary” but uses “commercial” in the text in order to distinguish a commercial letter of credit from a standby). The first versions of the Uniform Customs and Practice (UCP1933 and UCP1951) were entitled the “Uniform Customs and Practice for Commercial Documentary Credits”. See Dan Taylor, The Complete UCP 49, 65 (ICC 2008). See generally, Boris Kozolchyk, Commercial Letters of Credit in the Americas 84-86 (1966) (detailing the history of the rules, making it apparent that the term “commercial” was deleted, leaving “documentary” as the only term in the 1962 revision to accommodate eccentric British banking practice). Indeed, in these two widely recognized treatises, the significance of the term “commercial” in the titles is self evident. Boris Kozoluchyk, IX International Encyclopedia of Comparative Law, Ch. 5 at ¶ 44 (1979) (Kozoluchyk takes exception to the use of the label ‘documentary’).
letter of credit, (2) presentment and examination, and (3) payment.\textsuperscript{13} Issuance involves the process of release of the operative undertaking and its transmission to the beneficiary in a manner that enables it to comfortably act on it. Presentation and examination involves the process of the creation of documents on which the letter of credit obligation is conditioned, the submission of the documents to a bank named in the credit as eligible to receive the documents, the forwarding of these documents to persons who have made an undertaking under the LC, the examination of the documents, and any notification of refusal or subsequent cures if warranted. Payment involves the honor of their obligation by those persons making an undertaking on the letter of credit.

Each of these three phases can be and has been electrified to some extent although the pace and depth of electrification varies by stage and phase. As indicated, the issuance of a letter of credit or its amendments has been electrified since the invention of the telegraph. Payments have been accomplished through electronic means at least since the beginning of the twentieth century and, although there is little evidence, probably earlier.\textsuperscript{14} Payment systems, such as those effecting electronic payments, depend to some extent on settlement or the ability to settle and may involve complexity in an international context. At the very least, electronic messages authorizing charges against correspondent accounts or reimbursement from correspondent accounts are readily electrifiable and have been so treated for decades. As will be described, the principal difficulty in the electrification of letter of credit practice has involved the second phase of the process, namely the preparation and presentation of

\textsuperscript{13} This division is the author’s, although its components are evident to anyone familiar with letters of credit. While it is possible to add other dimensions to this classification such as the transfer of transferable letters of credit, amendments, or other miscellaneous matters, these three general movements describe with considerable utility the basic operational flow of a letter of credit or letter of credit type instrument and coincidentally provides a useful platform for viewing the evolution of LC electrification.

\textsuperscript{14} Fedwire which began in 1918 was initially effected by means of telegraphic communications between Federal Reserve banks. Board of Governors of the Federal Reserve System, Fedwire Funds Transfer System: Assessment of Compliance with the Core Principles for Systemically Important Payment Systems (2009), available at http://www.federalreserve.gov/paymentsystems/fedfunds_coreprinciples.htm#history. SWIFT also provides for electronic payment through its MT 100 series of messages and settlement through MT 752 (Authorization to Pay, Accept or Negotiate), 754 (Advice of Payment/Acceptance/Negotiate), and 756 (Advice of Reimbursement or Payment). Unlike Fedwire, there is no clearance through SWIFT which is only a messaging system.
documents. It is at the stage that many of the insights and lessons that are available from this field can be observed and considered.

STAGE 1: Legalization of Electronic LCs

The first stage of electrification involves a process described here as “legalization”. By legalization, what is meant is an attempt to provide a legal infrastructure which is conducive to utilization of electronic commerce. To a certain extent, that effort was represented by many of the statutory or model law attempts of the 1990s which attempted to provide recognition and acceptance of electronic data as the functional equivalent of paper-based data. While this state affects all three of the phases of letter of credit processing, namely issuance, performance, and payment, it affects the process of issuance the most pronouncedly. In the field of letters of credit, to a considerable extent, that process involved the legalization of issues of formation, formality, and payment systems.

As indicated, letters of credit have long been issued via telegraph and, as the methodology for telecommunication evolved to cable, telex and increasingly technologically-sophisticated means of electric data interchange. In the more than 150 years of electronic issuance, the defense by an issuer that its letter of credit was not binding due to failure to meet formal requirements, that is, not in the form of a signed writing, has rarely if ever been raised and, as appears to the author from diligent study, never successfully so.

The legalization of electronic issuance of a letter of credit in positive law first appeared in the process of the drafting of the first version of Article 5 (Letters of Credit) of the U.S. Uniform Commercial Code. It was present in two distinct aspects, the general definitions provided in UCC

15 Even at this stage, there has been electrification to a considerable extent. Major international banks currently scan documents presented and examine them at regional processing centers, moving them around the globe on a 24-hour basis.

16 In one of its most notable achievements, the United Nations Commission on International Trade Law (UNCITRAL) has taken the lead in laying the basis for the extensive legislation that provides that where a writing is required that requirement is taken to have been met with electronic writing where certain conditions are fulfilled. This work culminated in UNCITRAL, UNITED NATIONS CONVENTION ON THE USE OF ELECTRONIC COMMUNICATIONS IN INTERNATIONAL CONTRACTS, adopted Nov. 23, 2005, available at http://www.uncitral.org/pdf/english/texts/electcom/06-57452_Ebook.pdf. See also UNIFORM ELECTRONIC TRANSACTIONS ACT (1999), available at http://www.law.upenn.edu/bl/archives/ucl/fact99/1990s/utca99.htm (completed by the Uniform Law Commissioners in 1999, enacted by all U.S. states except Washington).
Article 1 (General Provisions) and in the formality provisions of UCC Article 5 (Letters of Credit).

The 1957 version of UCC Section 1-201(46) defined “written” or “writing” as including “printing, typewriting or any other intentional reduction to tangible form. Section 1-201(39) defined “signed” as including “any symbol executed or adopted by a party with present intention to authenticate a writing.” The 1957 version of UCC Section 5-104(2) (Formal Requirements; Signing) represents a significant breakthrough in the codification of the electrification process. It states that “a telegram may be sufficient signed writing if it identifies its sender by an authorized authentication.” This provision is one of the first express statutory recognitions of electronic writings and signatures.

As a result, when the dot-com revolution occurred, the question of allowing for the electronic issuance of a letter of credit was a “non-event”. Not only were the definitions of “signed” and “writing” in Article 1 of the UCC sufficiently broad to encompass an electronic letter of credit, but then current UCC Section 5-104 expressly embraced the notion of electrification by its reference to a telegraph message. Under the common

17 The 1957 version is used because it was the first version that was widely adopted. While the 1952 version was adopted by Pennsylvania, all further legislative action was suspended pending completion of the Report of the New York Law Revision Commission. See James E. Byrne, The Revision of UCC Article 5: A Strategy for Success, 56 Brooklyn L. Rev. 13 (1990). The first draft of what became U.C.C. Article 5 (Letters of Credit), then U.C.C. Article IV (Bank Collections: Bank Operations and Foreign Banking) issued in 1947, contained a definition of “telegram” as “a telegram includes a message transmitted by radio, teletype, or the like.” Section 2(8) reprinted in III Uniform Commercial Code Drafts 235, 242 (Kelly, ed. 1984). Section 1-201(37) (General Definitions) of the of Article 1 General Provisions (1949) defines “written” or “writing” as including “printing, typewriting or other intentional reduction to permanent form.” This definition is sufficient to include electronic transmissions by telegram as noted in its Official Comment which notes that that it is a broadening of the definition from the Negotiable Instruments Law. See VI Kelly, supra, at 35, 39.

18 U.C.C. § 1-201 defined “written” or “writing” as including “printing, typewriting or any other intentional reduction to tangible form.” U.C.C. § 1-201(46) (2002). Section 1-201(39) defined “signed” as including “any symbol executed or adopted by a party with present intention to authenticate a writing.” U.C.C. § 1-201(39) (2002). See also U.C.C. § 5-104, cmt. 2 (2002) (“the definition of ‘document’ contemplates and facilitates the growing recognition of electronic and other nonpaper media as ‘documents.’”) Citations to the U.C.C. are to the Model Code unless otherwise indicated.

19 U.C.C. § 5-104(2) (1994).
law approach to codification in the UCC, extrapolation from express reference to telegraph to similar electronic methodology was not an issue and presented no problem.

Although the electrification of issuance and payment was taken for granted without the need for permission, it was not mandated. However, this liberalized approach should be compared to the more restrained approach taken with respect to performance in which electronic presentation must be expressly allowed. In this difference, there is a lesson which perhaps may have implications beyond the field of letters of credit, namely that electrification is not homogenous even in the same transaction. There were suggestions made in the discussions of the UNCITRAL Working Group that the LC beneficiary should have a right to make electronic presentation. This approach was not embraced and, a more conservative approach was adopted whereby terminology was utilized which would support electronic presentations expressly provided for in the undertaking. The default rule retained paper. The determination of whether or not documents could be presented electronically was not undertaken by a positive law but left to the evolution of the practice. This approach is one of great wisdom because it respects the idiosyncrasies of the field and concerns related to it, which are discussed subsequently.

STAGE 2: Systemization of LCs

The process of systemization involves the creation of an infrastructure which includes law but goes beyond it in order to facilitate utilization of electronic commerce. Systemization has practical dimensions, such as electronics, computers, and similar systems which this author is not qualified to discuss, but it also involves creating rules or protocols which facilitate electronic commerce. In the field of letters of credit, these efforts would involve both rules of practice and systems. Since the end of World War I, there has been an international movement to formulate rules of practice governing letters of credit.21 Practice rules emerged after World War I. This approach is embodied in UCC Section 1-103 (1957 version) (Supplementary Principles of Law Applicable), Section 1-103(b) (Construction of Uniform Commercial Code to Promote its Purposes and Policies; Applicability of Supplementary Principles of Law) in Revised UCC Article 1 (2001). It provides “Unless displaced by the particular provisions of this Act, the principles of law and equity, including the law merchant and the law relative to capacity to contract, principal and agent, estoppels, fraud, misrepresentation, duress, coercion, mistake, bankruptcy, or other validating or invalidating cause shall supplement its provisions.”

21 The dimensions of this movement are traced in the various editions of what was for many years the leading US treatise on letters of credit, American Commercial Credits by
War I when the center of gravity in international trade finance shifted from London. Through a process of unification led by the US letter of credit community, these rules were harmonized and emerged as the Uniform Customs and Practice for Commercial Documentary Credits (1933 version) (ICC Brochure No. 82). Rules for demand guarantees, the Uniform Rules for Demand Guarantees (UDDG 458), were drafted in 1992 and revised in 2010 as URDG 758. Rules for standbys are contained in the International Standby Practices (ISP98). These rules provide a comprehensive system for these products that is complemented by law, whether statutory or judge-made.

The importance of this standardization was magnified by the absence of any normative positive international law, and indeed (with the sole exception of the United States since the mid-1950s) of any systematic domestic positive law for letters of credit. While there are statutory

Wilbert Ward (1922). Subsequent editions were Ward, Bank Credits and Acceptances (1931); Wilbert Ward & Henry Harfield, Bank Credits and Acceptances (3d ed. 1948); Ward & Harfield, Bank Credits and Acceptances (4th ed. 1958); and Harfield, Bank Credits and Acceptances (5th ed. 1974). After Ward’s death, he was bumped by Harfield. It and its subsequent editions reveal the emergence of rules and organizations that shaped practice by formulating standards of practice and standardization of forms. It was Ward himself who proposed adoption of the practice rules that became the UCP by the nascent International Chamber of Commerce and who served as the first Chair of its Banking Commission.


For an exhaustive analysis of UCP600, tracing the evolution of each article, see JAMES E. BYRNE ET AL., UCP600: AN ANALYTICAL COMMENTARY (2010).

Commentary on these rules may be found in Roy Goode, Guide to the ICC Uniform Rules for Demand Guarantees (1992) and Georges Affaki & Roy Goode, Guide to ICC Uniform Rules for Demand Guarantees URDG 758 (2011).


Drafting work on a statute for letters of credit began in the 1930s, was suspended as was all work on the UCC during World War II, and began in earnest after the war. The first version of Model UCC Article 5 (Letters of Credit) was adopted by the sponsors of the UCC in 1952 and enacted by Pennsylvania. As a result of the Report of the New York Law
provisions regarding letters of credit in other countries, they are not systematic. As a result, most letter of credit “law” is the result of judicial decisions. In 1995, the UN General Assembly adopted the United Nations Convention on Independent Guarantees and Standby Letters of Credit which has been ratified by eight countries. Since the revision of UCC Article 5 and the UN LC Convention were drafted at the same time, considerable efforts were made to align them. In 2005, the Peoples’ Supreme Court of the Peoples’ Republic of China promulgated progressive rules for letters of credit that are binding on all Chinese courts.

Three examples of legalization aptly illustrate the systemization of electrification. They involve different phases of the letter of credit process.

1. Default rules regarding issuance

It was not uncommon for banks that sent letters of credit by electronic transmission (described in letter of credit practice as "teletransmission") also to send a paper document containing the teletransmitted text. This dual (and redundant) practice arose from concern about the conservative nature of bankers. It may also have reflected some doubts regarding so-called "advanced" methods of telecommunications and their reliability, security and the completeness of the communication received. Under the practice rules prior to UCP400 (effective 1983), the default rule for such a dual transmission was that the paper version was treated as the operative instrument and the electronic telecommunication received.

Revision Commission, extensive revisions were made to the UCC including UCC Article 5 in the 1957 Model Code, and enactments by many states followed. The Model Revised UCC Article 5 (Letters of Credit) was adopted by the National Association of Uniform Law Commissioners and the American Law Institute in 1995 and has subsequently been adopted by all US jurisdictions with relatively few non conforming amendments. For a study of the process of adoption of the original UCC Article 5 and the clash between the letter of credit practice community and the drafters. See James E. Byrne, The Revision of UCC Article 5: A Strategy for Success, 56 Brooklyn L. Rev. 13 (1990).

E.g., Tunisia has a model statute. See Documentary Credit World, July-Aug. 2012, at 41, 43.

The countries having adopted it as of 1 April 2012 are Belarus, Ecuador, El Salvador, Gabon, Kuwait, Liberia, Panama, and Tunisia. The US has signed but not yet adopted it.

See LC Rules & Laws (5th ed. 2012) for an English translation of the rules. These rules reflect the influence of the UN LC Convention and Revised UCC Article 5.

simply as a courtesy unless the undertaking expressly provided that the electronic communication was the operative instrument, in which case the paper copy was a courtesy. 32 In UCP400 (1983) Article 12, this default rule was reversed, signaling an increase in the comfort level of the international banking operations community regarding electronic telecommunication. 33

This switch of the default rules was a significant moment in the electrification of letters of credit in that it indicated the willingness of banks to accept that electronic transmission of their undertakings as the norm.

32 When a bank gave an electronic notification of the issuance of a credit to a correspondent bank, UCP82 (1933) Article 9 para.2 provided that the “original” must be sent to the correspondent. INT’L CHAMBER OF COMMERCE, PUB. 82, UNIFORM CUSTOMS AND PRACTICE FOR DOCUMENTARY CREDITS art. 9, para. 2 (1933). Article 4 recognized that the issuer might rely solely on the electronic message without sending a mail confirmation. INT’L CHAMBER OF COMMERCE, PUB. NO. 222, UNIFORM CUSTOMS AND PRACTICE FOR DOCUMENTARY CREDITS art. 4 (1962). Depending on the intent of the issuer, either the paper version created by the issuer or the version printed or created by the correspondent or even beneficiary from the issuer’s electronic communication might be the operative credit on which the beneficiary could rely. Where the credit or amendment is communicated by telecommunication or pre-advised, via telefax, the operative credit would be the printout of the telefax. See also BYRNE, supra note 24, at 1403-11.(providing a comparison chart of prior versions from UCP82 to UCP600); DAN TAYLOR, THE COMPLETE UCP: TEXTS, RULES AND HISTORY 1920-2007 (2008) (containing the texts of prior versions of the UCP).

33 UCP400 Article 12(a) provided:

When an issuing bank instructs a bank (advising bank) by any teletransmission to advise a credit or an amendment to a credit, and intends the mail confirmation to be the operative credit instrument, or the operative amendment, the teletransmission must state "full details to follow" (or words of similar effect), or that the mail confirmation will be the operative credit instrument or the operative amendment. The issuing bank must forward the operative credit instrument or the operative amendment to such advising bank without delay.

Article 12(b) provided:

The teletransmission will be deemed to be the operative credit instrument or the operative amendment, and no mail confirmation should be sent, unless the teletransmission states "full details to follow" (or words of similar effect), or states that the mail confirmation is to be the operative credit instrument or the operative amendment.

UCP400, supra note 31 art. 12(a)-(b).
2. **Provision regarding originality and authentication of documents**

Additional provisions were included in UCP400 in an attempt to facilitate electronic data interchange (EDI) as eCommerce was known at the time.\(^{34}\)

These provisions appear in UCP400 Article 22(c) (1983) which provided that:

> unless otherwise stipulated in the credit, banks will accept as originals documents produced or appearing to have been produced: by reprographic systems; by, or as the result of, automated or computerized systems; as carbon copies, if marked as originals, always provided that, where necessary, such documents appear to have been authenticated.\(^{35}\)

This provision addressed performance and the presentation of documents. It attempted to accommodate the movement towards what were called "automated or computerized systems" and required that banks accept as "originals" documents which produced, were produced, or appeared to have been produced by either "reprographic systems" or as a result of automated or computerized systems. This provision was taken forward into the next provision of the UCP, UCP500 Article 20 (1994).\(^{36}\)

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\(^{34}\) These changes were due to the foresight and leadership of Mr. Bernard S. Wheble, the then-Chair of the ICC Commission on Banking Techniques and Practice, who was at the time the leading figure in the field of letters of credit. In his Introduction to UCP 1974/1983 Revisions Compared and Explained (1984), Wheble stated that one of its goals was to reflect "a look to the future" by making changes in the rules to allow for "the communications revolution replacing paper as a means of transmitting information (data) relating to a trading transaction by means of automated or electronic data processing (ADP/EDP)...." [page 5]. His contribution was acknowledged in the dedication to him of Byrne and Taylor, The ICC Guide to the eUCP (2009), the definitive commentary on the rules for electronic presentation under UCP letters of credit.

\(^{35}\) UCP 400, *supra* note 31, art. 22(c).

\(^{36}\) UCP 500 Article 20 (b) provided that:

> Unless otherwise stipulated in the Credit, banks will also accept as an original document(s), a document(s) produced or appearing to have been produced: (i) by reprographic, automated or computerized systems; as carbon copies; provided that it is marked as original and, where necessary, appears to be signed. A document may be signed by handwriting, by facsimile signature, by perforated signature, by stamp, by symbol, or by any other mechanical or electronic method of authentication.
addressed several questions including what could also be accepted as an 
original document, how a document could be signed and what constituted a
"copy".

While the motive was well intended, the drafting left much to be 
desired. The text as drafted raised the question of whether or not a 
document that was produced, or appeared to have been produced by a 
computer, had to be “marked” as an original, how a banker examining 
documents was to determine whether or not the document was produced by 
reprographic, automated or computerized systems, and the impact of such a 
rule on a practice which is founded on the examination of documents "on 
their face".

In a series of cases, the courts at first concluded that the lack of 
originality was a basis for refusal, even regarding documents which 
appeared on their face of the originals and the journey towards the 
acceptance of such documents. 37 This controversy led to, in effect, an 
"opinion" of the ICC which in effect rewrote or reinterpreted the provisions 
in UCP500 which were, in turn, incorporated into UCP600 Article 16. 38

Subsection (c) continues:

(i) Unless otherwise stipulated in the Credit, banks will 
accept as a copy(ies), a document(s) either labelled copy or not 
marked as an original - a copy(ies) need not be signed. (ii) Credits 
that require multiple document(s) such as “duplicate”, “two fold”, 
“two copies” and the like, will be satisfied by the presentation of one 
original and the remaining number in copies except where the 
document itself indicates otherwise.

37 This journey is detailed in JAMES E. BYRNE, THE “ORIGINAL” DOCUMENTS 
CONTROVERSY: FROM GLENCORE TO THE ICC DECISION (Christopher S. Byrnes & William 
R. Deiss eds., 1999), and marked by decisions such as Glencore Int'l AG v. Bank of China, 
[1996] EWHC (Comm) 95, and Kredietbank Antwerp v. Midland Bank PLC, [1997], All 
E.R. (D) 431.

129. INT’L CHAMBER OF COMMERCE, PUB. NO. 600, UNIFORM CUSTOMS AND PRACTICE 
FOR DOCUMENTARY CREDITS, art. 16 (2007) [hereinafter UCP600]. ISP98 Rule 4.15 places 
the UCP article in the context of standard letter of credit practice but does not provide for 
such a mechanism to originlize a document by stamping a document “original,” although 
it does not reject this usage. See JAMES E. BYRNE, ISP98 AND UCP500 COMPARED 270 
(2000). Instead, the ISP rule indicates when an original is required and establishes a 
 presumption that documents are original unless they are apparently copies. Even when they 
are apparently copies, the rule provides that the presence of what appears to be an original
These legal decisions caused considerable controversy throughout the world and lead to enormous disruptions of trade and commerce as well as considerable litigation and it took considerable measures on the part of many to sort or the resulting mess.

A lesson to be learned from this is that overly-ambitious drafting, however well intentioned, can cause more harm than good.

3. SWIFT and Standardization

The banks involved in letter of credit transactions have taken the lead in facilitating the electrification of letters of credit, most recently collectively, through the agency of SWIFT, apart from and in a certain sense in parallel to the evolution of letter of credit practice rules and law.\(^3\) SWIFT has pursued an agenda encouraging electronic messaging so as to reduce paper and to increase the dependability and authenticity of such communications and has successfully created a set of message types regarding letter of credit related communications. The protocols and even the terminology surrounding these communications have, to a certain extent, influenced the practice related to letters of credit, notwithstanding many disclaimers on the part of SWIFT to do so.\(^4\) To a considerable extent, signature renders them acceptable as originals. A more detailed analysis and further insights are provided in JAMES E. BYRNE, ISP98 AND UCP500 COMPARED 270 (2000).

\(^3\) The Society for World-Wide Inter-bank Financial Telecommunications (SWIFT) is a private international cooperative society of over 10,000 banks and is headquartered in Belgium. It transmits financial messages. See SWIFT Website, www.swift.com (last visited Mar. 25, 2012). Because of political reasons, SWIFT has not emphasized the effect of its formatting on the substance of letters of credit, deliberately attempting to cast itself in a secondary role, it is not fully appreciated to what extent the medium has shaped the message. This aspect of letter of credit standardization, however, is a field ripe for academic study. One clear example is the utilization of the terminology related to the “availability” of a letter of credit. This terminology, which quickly became embedded in SWIFT formats, has shaped the thinking of bankers to the extent that, although incomprehensible to most people, bankers continue to think in a credit being available by payment, negotiation, deferred payment undertaking, or site, as is reflected in the latest revision of the Uniform Customs and Practice for Documentary Credits, ICC Publication No. 600, effective 1 July, 2007. INT’L CHAMBER OF COMMERCE, PUB. NO. 600, UNIFORM CUSTOMS AND PRACTICE FOR DOCUMENTARY CREDITS (2007) [hereinafter UCP600]. See also JAMES E. BYRNE ET AL., UCP600: AN ANALYTICAL COMMENTARY 25 (2010).

\(^4\) While SWIFT and the ICC maintain the fiction that SWIFT’s systems do not make rules but follow them, there have been numerous instances of the reverse. For example, the term “available” (a credit being “available” in a certain manner as in UCP600 Article 6) came from SWIFT and makes no sense absent the context of the fields so named. UCP600 Article 16(c) (Discrepant Documents, Waiver and Notice) was so structured around the
SWIFT’s influence on LC practice has supplanted the role of forms as a means of standardization, although with regard to certain rules of practice, particularly related to standbys and independent guarantees, the role of forms retains significance because SWIFT formatting is essentially a blank slate.\(^{41}\)

**STAGE 3: Acceptance**

While it is relatively easy to create a legal framework, rules, and systems, it is much more difficult to obtain market acceptance of them. Acceptance cannot be mandated,\(^{42}\) yet acceptance of the electrification of a field is essential for its widespread use.

In the attempts made to accommodate commercial letter of credit practice to electrification, considerable time and energy was spent seeking alternatives to order bills of lading which tended to present the most serious obstacles to the electrification of performance or presentation of documents under a letter of credit. Although attempts were made to provide for electrification of documents by contract,\(^{43}\) absent an international legal notice of refusal in MT 734 (Advice of Refusal) that its drafters forgot to indicate that the bank giving the notice must do what it indicated that it would do. See China New Era Int’l Ltd. v. Bank of China (Hong Kong) Ltd., [2010] 5 H.K.C. 82 (C.A.) (H.K.), where the court interpreted the rule to say what it had omitted from the prior version. See generally, James E. Byrne, UCP600: An Analytical Commentary 12-13 (2010).

\(^{41}\) Its format for letters of credit, the MT 700 series is widely used for commercial letters of credit. MT760 for standbys and independent guarantees is less widely used. Whereas MT 700 and 701 permit mass processing, MT 760 is essentially a blank letter. SWIFT’s new project to create formatting for standbys and independent guarantees in an XML format attempts to facilitate the mass processing of these undertakings. The ISP98 Model Forms are an example of a bridge between rules and formats. See Documentary Credit World, May 2012, at 10. For more information, email: info@doccreditworld.com.

\(^{42}\) As noted above, procurement and billing by and for large purchasers, public and private are a notable exception. In order to deal with these large entities, vendors must switch to and use the mandated systems.

\(^{43}\) The experiments began with the efforts of Chase Manhattan Bank to provide for electronic bills of lading in CBOL, a project that foundered on the unwillingness of other banks to support a system operated by a competitor and the unwillingness of Lloyds of London to insure the process due to the absence of any basis on which to determine potential risk. They continued to SWIFT’s Bolero, a project that was based on a contract to deliver the goods rather than a statutory scheme embracing electronic bills of lading. As should have been obvious to a first year law student, private contracting would not answer the problems of priority in the case of insolvency.
regime giving effect to such undertakings, the possibility of electronic bills of lading that would be widely accepted by banks is nonexistent. 44

Leading figures in the UCP world attempted to circumvent these limitations by pressing for documentation which did not require unique originality, particularly in the form of a so-called "sea waybill." While it was not entirely clear what was the character of this undertaking, it was largely understood to be a receipt for the goods and a contract for carriage but not a document representing title to or control of the goods. As a result, the sea waybill could not be said to be "negotiable." Nor was there any obligation on the part of the carrier to deliver the goods to the person entitled under the document such that that person could itself issue a delivery order requiring such delivery to the holder of the order. Under a sea waybill, the contractual obligation of the carrier was to deliver the goods to the named consignee without more. Possession of the document was irrelevant with respect to this obligation. While UCP500 contained Article 24 (carried forward in UCP600 Article 21) regarding sea waybills, this provision is not widely used and has been largely bypassed.

An end-run to what might be perceived to be a log jam regarding commercial interests and bills of lading is being orchestrated by banks and SWIFT through the mechanism of a “TSU” or trade services utility by means of an electronic invoice labeled a “BPO” (for “Bank Payment Obligation”). 45 Despite the name, it is a promise by the bank to pay if its customer’s order is satisfied; that is, a letter of credit. This approach is in part a reaction to the fairly dramatic decrease in the number of commercial letters of credit, in use and the abandonment of this instrument in favor of either commercial standby letters of credit or open account undertakings. 46

44 An interesting, albeit local, exception exists with respect to the United States market for cotton warehouse receipts in which there is a federal statute supporting electronic warehouse receipts. United States Warehouse Act, 7 U.S.C. §§ 241-56 (2006). The limited nature of the market makes such a device possible.


46 This movement, parenthetically, is likely to be accelerated in the event that the risk weighting capitalization proposals inherent in Basel III are implemented assigning a risk weighting of 100 percent to commercial letters of credit as well as standbys and independent guarantees. In that case, it is unlikely that sophisticated customers would be prepared to tolerate the increasing complexity of the commercial letter of credit practice and would abandon it wholesale either in favor of open account or commercial standbys. While, as may well be expected, traditional practitioners and the letter of credit community
As indicated, the evolution of the UCP towards accommodation of electrification began with UCP400, and gradually increased to the point where the drafters of the UCP squarely faced the question of what to do about the possibility of electronic performance, that is, the presentation of electronic documents. Rather than revising or altering the UCP regime, they decided to create a supplemental set of rules to be used with ePresentations which were labeled the eUCP.\textsuperscript{47} Originally released in 2002 as a supplement to the then current version (UCP500), the eUCP was further revised in 2007 to supplement UCP600.\textsuperscript{48} These rules contain a fairly sophisticated scheme by which both paper and electronic documents can be presented, by which issues regarding authenticity can be determined, allocating risk of non-receipt of an electronic communication, address questions related to notice of refusal, originality and copies, date of issuance, transport, and the corruption of an electronic record after it has been presented.\textsuperscript{49} Despite the careful formulation of the eUCP, and the lack of any serious substantive criticism of it in the literature, the rules have not been used. To date, to the knowledge of the author based on global informal surveys, there has been one instance in which these rules were utilized and that one instance was a mistake in which the bank utilizing the rules did not permit presentation of an electronic document.\textsuperscript{50} In the field of letters of credit, this process of acceptance is to a considerable extent a matter of comfort both with respect to the banks issuing letters of credit, their customers, the applicants, and beneficiaries as well as various correspondent banks who play a role in the letter of credit process. The eUCP is only one of a long line of failures in the efforts of market leaders to entice LC users into using electronic data in lieu of paper documents.

\textsuperscript{47} TAYLOR, supra note 32, at 238-43 (reproducing a copy of the 2007 eUCP Version 1.1 Supplement to UCP600 for Electronic Presentation).

\textsuperscript{48} TAYLOR, supra note 32, at 198-203 (reproducing a copy of the 2007 eUCP Version 1.1 Supplement to UCP600 for Electronic Presentation).


\textsuperscript{50} This was made by the Korean Exchange Bank in December 2010. ePresentation documents surrounding the LC, which included certificate of weight, certificate of analysis as well as the bill of lading and insurance certificate were handled through Bolero’s trade platform. See KEB Issues First Paperless LC Under eUCP, TRADE FIN., Dec. 14, 2010.
As intimated, there is a significant difference between commercial letters of credit and standby letters of credit or independent guarantees with respect to issues of performance. There are regular presentations of documents whose operative original is significant under commercial letters of credit. Under standby letters of credit and independent guarantees, it is unlikely that there would be a unique original document presented. As a result, standbys and independent guarantees are more amenable to electrification than are commercial LCs. Being more amenable, however, does not mean that electrification is inevitable or even the norm.

A classical illustration of this point arose in the context of drafting the UN LC Convention. Since this document is related to independent guarantees and standby letters of credit, undertakings not requiring unique documents, it was taken for granted by attorneys and legal scholars unfamiliar with letter of credit practice that it would be possible and, indeed, desirable to provide as a default rule that unless the undertaking provided otherwise presentation of an electronic document complied. The difficulty was that their ideas did not correspond with either practice or the expectation of issuers or users of standbys or independent guarantees. Their expectation was that a paper, rather than an electronic, document must be presented, even though there was no particular desirability of a piece of paper or any particular advantage in terms of authenticity to paper. As a result, any rule that so provided would either be continually varied, a clear sign that the rule is wrong, or would afford a reason for refusing to invoke the statute at all. Happily, the UN LC Convention and corresponding provisions in revised UCC Article 5 avoided (wisely) taking a position with regard to this and left it simply to questions of practice.  

ISP98 Rule 3.06 provides an important insight into the frontiers of acceptance of electrification. Rule 3.06 provided that the norm was that

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51 “An undertaking may be issued in any form which preserves a complete record of the text of the undertaking and provides authentication of its source by generally accepted means or by a procedure agreed upon by the guarantor/issuer and the beneficiary.” UN LC Convention, supra note 11, art. 7, § 2. The UN LC Convention may have been overambitious in providing for an electronic substitute of a writing in other situations such as acceptance of an amendment and cancellation, but presumably these matters can be sorted out through judicial interpretation and application of rules and practice.

52 INT’L CHAMBER OF COMMERCE, PUB. NO. 590, INTERNATIONAL STANDBY PRACTICES ISP98 R. 3.06(a) (1998) [hereinafter ISP98]. ISP98 Rule 3.06 (Complying Medium of Presentation) provides that

(a) to comply, a document must be presented in the medium indicated in the standby; (b) where no medium is indicated, to comply a document must be presented as a paper document, unless only a demand is required, in which case: (i) a demand that is presented
there would be presentation of a paper document.\textsuperscript{53} It was, of course, recognized that the undertaking could provide for presentation of electronic documents. Indeed, a number of standby letters of credit allow for electronic presentation and even for presentation by means of telefax.\textsuperscript{54}

The notable exception to this flexible rule is a situation where a standby letter of credit issued in favor of a bank required presentation only of a demand. In that case, the practice was to permit presentation of a demand by an authenticated electronic means even if the standby did not expressly so provide. In such a situation ISP\textsuperscript{98} Rule 3.06(b)(i) provided that “a demand presented via SWIFT, tested telex, or other similar authenticated means by a beneficiary that is a SWIFT participant or a bank” would comply, notwithstanding the fact that there was no provision in the independent guarantee permitting presentation by an electronic media. In addition, the rule would apply where the beneficiary was an institution with access to authenticable communications.\textsuperscript{55} Interestingly, although in many respects the URDG 758 copies provisions of the ISP, it did not recognize the standard practice with respect to standbys that permitted electronic presentation of documents under clean standbys. In addition, ISP\textsuperscript{98} provided extensive definitional rules in ISP\textsuperscript{98} Rule 1.09(c) to accommodate any provision in an ISP undertaking that would allow for electronic presentation.\textsuperscript{56}

via SWIFT, tested telex, or other similar authenticated means by a beneficiary that is a SWIFT participant or a bank complies; otherwise (ii) a demand that is not presented as a paper document does not comply unless the issuer permits, in its sole discretion, the use of that medium; (c) a document is not presented as a paper document if it is communicated by electronic means even if the issuer or nominated person receiving it generates a paper document from it; (d) Where presentation in an electronic medium is indicated, to comply a document must be presented as an electronic record capable of being authenticated by the issuer or nominated person to whom it is presented.

\textsuperscript{53} \textit{Id.}

\textsuperscript{54} Landlord/tenant standbys are a good example, as are undertakings for the Chicago Commodity Exchange.

\textsuperscript{55} In the ICC’s latest exercise in rulemaking for independent guarantees, the URDG 758 (effective 1 July 2010) there is no parallel provision. \textit{INT’L CHAMBER OF COMMERCE, PUB. NO. 758, UNIFORM RULES FOR DEMAND GUARANTEES} art. 15, (2010) [hereinafter URDG 758].

\textsuperscript{56} ISP\textsuperscript{98} Rule 1.09(c) (1998) provides that in a standby providing for or permitting electronic presentation, “Electronic Record” means (i) a record (information that is inscribed on a tangible medium or that is stored in an electronic or other medium and is retrievable in perceivable form); (ii) communicated by electronic means to a system for
The lesson to be learned from this stage of electronic acceptability is that attempts to mandate by legislative fiat or enticement are bound to fail absent market acceptance.\textsuperscript{57}

The requisite degree of comfort with electrification must be achieved not only by those who make independent undertakings, which include banks and financial institutions, the beneficiaries of those undertakings one would expect would favor the ability to make electronic presentations, but also those who are obligated to reimburse the financial institutions and those in the background who make the transaction work. It is no great surprise that the normal conservative character of commerce and finance would slow down the acceptance of electronic telecommunication in this field. Moreover, the touted savings inherent in electrification are not necessarily apparent to the budget maker who must allow for an enormous outlay to set up systems to accommodate electrification.

STAGE 4: The Transformation and Evolution of the Product

It should not be assumed that the result of electrification is the same product as the paper version. While appearances may be the same as the paper version and the processing speedier, eProducts have a way of evolving themselves and of changing the business environment in which they operate. The result of this evolution can be the transformation of the product itself. The current world of eLCs as it deals with oil fluctuation clauses and marine bills of lading offers a glimpse of what the future may have in store for the product.

\textsuperscript{57} This evokes the lesson gleaned from \textit{King Canute and the Waves}, a legend familiar to English schoolchildren of King Canute and the Waves in which King Canute (of Denmark) sat on a throne on the shore of the ocean and commanded the waves to recede, which of course they did not. Helene Adeline Guerber, \textit{King Canute and the Waves}, in \textit{THE STORY OF THE ENGLISH}, 63-67 (Amer. Book Co. ed. 1898).
Letters of credit are commonly used to pay for purchase of oil on the spot market either in the form of standbys or commercial letters of credit. Oil is a highly volatile commodity within a fairly wild range of extremes from the time of issuance of the LC to the time of delivery of the oil. While traditional letters of credit state a maximum amount, such a maximum defeats the purpose of the oil fluctuation credit. What the beneficiary/seller wants is the issuer’s undertaking that it will pay the price of the oil however it may fluctuate. Accordingly, such letters of credit state a price which is linked to some objective source by which the price can be measured. Commonly, the linkage is to well-known market surveys such as Platts for a given region.58

Such a clause gives rise to several questions. In the first place, is such a clause enforceable and does it constitute a letter of credit.59 Put another way, the problem is what to reference to a source outside the context of a letter of credit constitutes a non-documentary condition rendering the undertaking something other than a letter of credit, namely a simple contract to which the argument of indefiniteness or uncertainty may be raised.

It must be asked whether or not it is possible to turn to objective sources in order to determine the character of an undertaking.60 Reference

58 Platts, About Us, http://www.platts.com/AboutPlattsHome/ (last visited May 10, 2012). The terms of the letter of credit might provide “the amount of this letter of credit shall automatically fluctuate to cover any increase/decrease according to the price clause without further amendment to this credit.”

59 There may be other issues regarding such a clause, on the level of the safety and soundness of the provision, but the operative legal question is whether or not such a clause is possible within an undertaking denominated as a “letter of credit”.

60 The clearest commercial example of such a provision would be the question of whether the interest that may be charged in a negotiable promissory note can be linked to an objective formula (such as a given bank’s published prime bank rate or based on a calculation predicated on U.S. Treasury obligations of a certain duration outside the “four corners” of the instrument. It is now settled that objective criteria by which a calculation may constitute a proper reference for an instrument that retains the element of negotiability. Taylor v. Roeder, 360 S.E.2d 191, 192 (Va. 1987) (concluding that a note providing for a variable rate of interest, not ascertainable from the face of the note, is not a negotiable instrument), reflects the older approach. The decision was changed by legislation within weeks of having been rendered. See JAMES E. BYRNE, NEGOTIABILITY: THE DOCTRINE & ITS APPLICATION IN US COMMERCIAL LAW 42 (14th ed. 2005). The 1990 Model Code version of UCC Article 3 provides that

[i]nterest may be stated in an instrument as a fixed or variable amount of money or it may be expressed as a fixed or variable rate or rates. The
to an objective and readily available index is not something that renders the undertaking obscure or indefinite and is not "non-documentary in the sense that it is possible to make an objective verification of the data. Banks look to clocks to tell time, calendars to determine dates, and the internet (and before that printed bulletins or phone calls) to determine LIBOR. Moreover, there is little difference between an undertaking to pay at a rate calculated if one were to provide a photocopy of the Platt’s rate and a situation where the bank determines what constitutes that rate. In other situations, the bank must make determinations that are technically non-documentary regarding the date and time of presentation and whether or not it was timely or whether or not in some standbys an advanced payment was made to an account in the bank or an advanced payment guarantee or standby was lodged with the bank. Accordingly, it is possible to link the undertaking with matters which can be objectively verified.

amount or rate of interest may be stated or described in the instrument in any manner and may require reference to information not contained in the instrument. If an instrument provides for interest, but the amount of interest payable cannot be ascertained from the description, interest is payable at the judgment rate in effect at the place of payment of the instrument and at the time interest first accrues. U.C.C. § 3-112(b) (2002).

61 LIBOR is the London Inter-bank Offered Rate. It is the average interest rate that leading banks in London charge when lending to other banks. It is a trimmed average of interbank deposit rates offered by designated contributor banks, calculated and published by Thomson Reuters every day after 11:00 AM, London time.

62 ISP98 Rule 4.11 (Non-Documentary Terms or Conditions) (c) provides:

Determinations from the issuer’s own records or within the issuer’s normal operations include determinations of: (i) when, where, and how documents are presented or otherwise delivered to the issuer; (ii) when, where, and how communications affecting the standby are sent or received by the issuer, beneficiary, or any nominated person; (iii) amounts transferred into or out of accounts with the issuer; and (iv) amounts determinable from a published index (e.g., if a standby provides for determining amounts of interest accruing according to published interest rates).

ISP98, supra note 52, R. 411 (1999).

63 See, e.g., Korea Exch. Bank v. Standard Chartered Bank, [2005] SGHC 220 (2005) (holding that an oil price fluctuation clause that is linked to a published table and that operates without amendment controls over a specific amount and a specific tolerance stated in the appropriate SWIFT Fields for amount and amount tolerance so that the amount available under the credit can be greater or lesser than that stated). For further analysis, see
It is possible, however, to take another step. There is no good commercial reason that data capable of external verification cannot be undertaken in an electronic form. Documents from third parties such as certification of inspection are commonly required in commercial LCs. Moreover, some data in required documents is not readily susceptible to paper-based verification, such as the location of a vessel on a given date. In a similar vein, it may be asked whether or not verification of the objective accuracy of any representation might not be made electronically and whether or not that verification might constitute a basis for refusal. Such representations could include a bill of lading, custom documents, or inspection certificates. From here, a further step is possible. Instead of using eData for a paper document, why not verify facts heretofore not verifiable thereby reducing dependence on paper representations? To give an example, if a letter of credit called for a statement or document to the effect that goods were laden on board a named vessel at a given location on a certain date, based on sources now available and available electronically it is possible not only to determine whether the carrier issued a bill of lading and its contents, but to determine whether or not that given vessel was at the indicated location on the given date.

It may be asked whether or not an issuer or guarantor of an independent undertaking could refuse payment under current LC law and practice even if the document presented demanding payment contained terms which complied with the terms and conditions of the letter of credit. The proper answer is that the issuer or guarantor can refuse payment predicated on LC fraud or abuse. A demand for payment based on shipment on board at vessel at a given location is fraudulent if the vessel is not at the location on the purported date of loading. The question is whether the guarantor or issuer can meet its burden of proving that the recital or representation was fraudulent which would amount to proving the reliability of the data and its veracity. The fact that the data is available electronically should not in itself defeat the admissibility of such evidence which ought to be treated in the same mode as would a representation in a paper medium. That question ought to be resolved on the reliability of the medium and the availability of other evidence in support of the assertion rather than the format in which the information is contained.

also INSTITUTE OF INT’L BANKING LAW & PRACTICE, ANNUAL SURVEY OF LETTER OF CREDIT LAW & PRACTICE, 376-85 (James E. Byrne & Christopher S. Byrnes eds. 2006).

64 See UN LC Convention, supra note 11, arts. 19-2020; U.C.C. § 5-109 (2000).
This question arose obliquely in the context of a recent case, MAP Marine Ltd. v. China Construction Bank Corp.\(^6^5\) In that case, a letter of credit was issued to pay for a vessel charter in connection with the shipment of goods was transferred.\(^6^6\) The transferee beneficiary had unsuccessfully sought to have the credit amended to reflect payment for services connected with the charter and not the charter itself.\(^6^7\) When the transferring bank refused a demand by the transferee beneficiary on the ground that the unsuccessful request to amend signaled that the drawing was fraudulent, the transferee beneficiary sued the transferring bank for wrongful dishonor.\(^6^8\) Summary judgment in favor of the beneficiary was affirmed.

Of interest was the allegation by the transferring bank that the named vessel was located elsewhere on the date of the alleged loading. The appellate opinion questioned the authoritativeness of the website on which the transferring bank relied, noting that it was not an appropriate subject for judicial notice. The opinion does not disclose the site, but there are several websites that track such information. It may be wondered whether they are fit for judicial notice, but such sites provide a basis for a witness to testify as to their reliability. Moreover, there are certain sites, such as Lloyd’s Register,\(^6^9\) that are regarded as authoritative. Data in an online registry of that caliber would be appropriate for judicial notice.

Reference to such data opens a door to a better and more efficient instrument with the potential to reduce the possibility of commercial fraud. If the credit were payable against verification of data in a registry, the indication that the vessel was not at a given port on a given date would be a basis for proper refusal of a demand. Under such a term in the LC, it would no longer be necessary for the issuer or guarantor to prove that the information contained in the database was true or that the beneficiary or a person providing this information to the beneficiary committed "fraud," but simply a question of whether or not the data or representations reflected in the documents presented corresponded with the requirements of the credit. In this sense, the requirements of the credit would include not simply


\(^{66}\) Id. at 404.

\(^{67}\) Id.

\(^{68}\) Id.

\(^{69}\) See Lloyd’s Register; About Us, http://www.lr.org/about_us/ (last visited May 10, 2012).
examination of the statements contained in the credit but also correspondence with databases regarding those statements.

The great advantage of such an approach is that it makes available to the issuer and correspondingly the applicant, a valuable tool against beneficiary fraud.\textsuperscript{70} From the perspective of the beneficiary the question is whether or not this requirement poses a subjective or discretionary basis by which resistance to such a provision can be defended. Where the source is not subjective, it would seem odd that the beneficiary would resist.

It may be asked whether such a condition in a letter of credit would render meaningless the independence or abstraction of the letter of credit undertaking.\textsuperscript{71} That abstraction, however, assures payment against representations. There is no reason that these representations cannot be electronic and sited in databases that are objective as opposed to being situate in pieces of paper that are presented.

Similar possibilities would arise with respect to determinations of the objective compliance of the goods with certain norms as the result of actions by testing agencies, governmental agencies, and other third parties. The possibilities are as endless as the circumstances in which a buyer

\textsuperscript{70} Or, at the least, shifts the type of fraud that must be guarded against and reduces its incidence. Fraudulent databases exist and genuine ones are capable of corruption.

\textsuperscript{71} The notion of independence is at the heart of the modern letter of credit. A letter of credit is valuable to sellers because it assures payment on the basis of representations, including those of third parties.

UN LC Convention Article 3 (Independence of undertaking) states:

For the purposes of this Convention, an undertaking is independent where the guarantor/issuer’s obligation to the beneficiary is not:

(a) Dependent upon the existence or validity of any underlying transaction, or upon any other undertaking (including stand-by letters of credit or independent guarantees to which confirmations or counter-guarantees relate); or

(b) Subject to any term or condition not appearing in the undertaking, or to any future, uncertain act or event except presentation of documents or another such act or event within a guarantor/issuer’s sphere of operations. UN LC Convention, \textit{supra} note 11.

Revised UCC Section 5-103(d) (Scope) provides “Rights and obligations of an issuer to a beneficiary or a nominated person under a letter of credit are independent of the existence, performance, or nonperformance of a contract or arrangement out of which the letter of credit arises or which underlies it, including contracts or arrangements between the issuer and the applicant and between the applicant and the beneficiary.”
desires to have objective verification of a shipment of conforming goods before its bank pays. While the seller will properly resist any condition that smacks of subjectivity, it should also welcome objective verification. The limits are the objectivity of the source and a matter of encompassing or encapsulating them which assures the integrity of the undertaking.

As a result, it may be speculated that the letter of credit of the future, while remaining independent in a certain form of assurance of payment, nonetheless offers to all parties an enhanced ability to provide assurance of actual performance, reducing risk of fraud and expense inherent in the transaction. For this step to occur, determination must be made as to what sites are authoritative and objective. Into this brave new world of electronic letters of credit or independent guarantees, it is possible to project a more dependable, more certain, less expensive and more efficient mechanism to assure payment.