Cross-Border Electronic Transfers in the Securities Markets

DR. JOANNA BENJAMIN*

"The medium is the message."[1]

I. Introduction

The union between the international markets in investment securities and the new electronic technology may appear to be a marriage made in heaven; as the two partners are matched both in their strengths and their weaknesses. The securities markets rely on the rapid delivery and processing of vast amounts of time-critical data; the new technology is able to effortlessly provide them. While a computer network is unable to transport physical goods, securities (and tradable rights in respect of them called interests in securities) constitute intangible claims, which may be promoted, traded, and delivered in cyberspace. It is therefore unsurprising that the electronic systems of broker dealers, fund managers, and their service providers are among the most sophisticated and innovative in the world. Arguably, these systems will determine an important part of the future shape of e-commerce. In turn, the opportunities and challenges presented by the new technology are rapidly transforming practice as the securities markets endeavor to move towards borderless electronic commerce. Regulators and consumer groups have welcomed these developments, as the new technology reduces inequalities of information between service providers and consumers. Computerization means that firms are able to deliver a better service; it also means they have to.

*Dr. Joanna Benjamin combines an academic career with practice. She is senior lecturer in company/commercial law at the Centre for Commercial Law Studies, University of London, Consultant at Clifford Chance and Director of the Centre for Law Reform in London. Previous positions include Deputy Chief Executive of the Financial Law Panel and Director of Financial Services Research, Clifford Chance. Joanna is widely consulted by public agencies (including, in the UK, the Financial Services Authority, the Bank of England, HM Treasury and the Cabinet Office) on policy and law reform issues concerning the computerization of the financial markets. She has published widely on this subject, including numerous articles and two books, entitled *Interests in Securities* (2000) and *The Law of Global Custody* (1996).

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1. MARSHALL MCLUHAN, UNDERSTANDING MEDIA: THE EXTENSIONS OF MAN 15 (1964).

Against this positive background, however, many market participants experience the legal aspects of the cross-border electronic securities markets as burdensome. This is because in a cross-border electronic environment, the answers to a number of important legal questions remain unpredictable. While the financial markets have always tolerated a certain measure of legal risk, particularly at times of rapid innovation, the current extent of legal uncertainty arguably inhibits the innovative potential of these markets.

This article will consider the impact of computerization on the legal aspects of cross-border transfers of interests in securities. It will seek to divide areas of legal risk into two categories. The first comprises those legal uncertainties that are attributable to policy considerations, such as rules in favor of unsecured creditors and the victims of fraud. While it may not be possible or even desirable to eliminate such risks, it is helpful to identify them so that they can be managed. The second category comprises those areas of legal uncertainty that are attributable to anachronism, where the rapid pace of innovation has taken market practice beyond the scope of settled law.

In certain jurisdictions, many existing legal provisions pre-date computerization, and were drafted in the light of paper-based practice. Where the assumptions implicit in legal rules no longer match the realities of practice, the application of those rules is uncertain. This article will argue that these areas of legal uncertainty require a paradigm shift in legal analysis delivered, in some cases, by legal reform. Two examples in particular will be considered, namely the requirement to serve notice of an assignment of a claim on the obligor, and the requirement to perfect security interests under *lex situs*. It will be argued that the necessary paradigm shift is available within the existing principles of English law, and is fully expressed in the concept of securities entitlements under Article 8 of the U.S. Uniform Commercial Code.

II. Market Developments

A. Cross-Border Investment

Many factors have contributed to the rise of cross-border securities investment in recent decades. These include the growth of the eurosecurities markets in the latter part of the twentieth century, the relaxation of exchange controls from the end of the 1970s, and the deregulation of the financial markets. For demographic reasons, pension funds have experienced exponential growth in recent years; as the domestic markets are no longer able to meet their demands, pension funds have been forced to turn abroad for new investment opportunities. Political change in the former Soviet Union and, over the medium term, rapid economic growth in the Far East,[2] have encouraged investment in the emerging markets. The introduction of the euro is a further factor facilitating cross-border investment, as foreign exchange risk is removed within euroland. For all the above reasons, participants in the securities markets regularly deal with foreign assets, foreign counterparties, and foreign intermediaries. Of course, cross-border securities investment is not new, but the current volume of cross-border investment is unprecedented.

B. Electronic Markets

Two important trends are affecting the international securities markets. First, the traditional markets are being consolidated, particularly within Europe and between Europe and

2. This statement is notwithstanding the crash of 1998.

New York. With the introduction of the euro, large financial institutions are leading the demand for a single pan-European trading platform, with links to New York. New initiatives involving the traditional exchanges are announced on a regular basis. Second, the traditional exchanges are facing a challenge from more recently established alternative trading systems that are diverting significant volumes of business away from the traditional exchanges, and also generating new sources of business by offering greater market access to new market entrants.

C. Electronic Delivery

In the past, the delivery or settlement of securities from seller to buyer and from collateral giver to collateral taker involved the physical movement of paper instruments, or certificates and transfer forms. Payment was usually made by check. Paper-based settlement was labor intensive. It was also risky, as paper instruments, certificates, and transfer forms were relatively easy to steal and forge. Above all, it was slow. As the volume of business in the securities markets increased, settlement could not keep up. In the 1970s, the U.S. markets experienced what has become known as the paper crunch, as settlement delays threatened to disrupt the operation of the securities markets. In the United Kingdom, the weakness of paper-based settlement exposed a program of privatization of nationalized industries in the 1980s, and the big bang[3] of 1986 led to an explosion in the volume of trades, and settlement delays became significant. In the crash of 1987, many investors sought to limit their losses by selling their securities, but found that the failure of timely settlement left them exposed.

In 1989, the Group of Thirty (G30), a New York-based think tank for the international financial markets, published a major report entitled *Clearance and Settlement Systems in the World's Securities Markets* (*G30 Report*). This report made nine recommendations with a view to achieving more efficient settlement. The *G30 Report* put the need for electronic settlement beyond doubt.

With electronic settlement, interests in securities are delivered through electronic settlement systems. Electronic settlement takes place between participants in such systems.[4] The interests of participants are recorded by credit entries in securities accounts maintained in their names by the operator of the system. The operator also maintains participant cash accounts. When participant 1 (a seller) and participant 2 (a buyer) agree that interests in securities will be delivered against payment from 1 to 2, they instruct the settlement system to debit the securities account of 1 and credit that of 2. At the same time, they instruct the system to debit the cash account of 2 and credit the cash account of 1. This arrangement offers quick and efficient settlement by removing the need for paperwork. It also permits the synchronization of the delivery of interests in securities with the payment of a corresponding cash sum; such synchronization is called delivery versus payment or DVP.

For many years, the *G30 Report* provided the model for standards in the settlement industry. As new electronic technologies develop, the settlement industry is able to meet and even exceed the G30 standards. More than a decade after the report was published,

3. The big bang is the colloquial name for reforms that were made to the rules of the London Stock Exchange that fundamentally altered the structure of the London equity market.

4. If a nonparticipant wishes to settle its interests in securities electronically, it must do so through a participant acting as its custodian.

commercial pressure for increased settlement efficiencies is more intense than ever. Much of this pressure relates to the use of interests in securities as collateral.

D. Collateral

Collateralization addresses credit risk by supporting a debt or other personal obligation (which may be defeated by the obligor's insolvency) with a right of recourse against identified assets (which should not). The purpose of collateral is to protect the collateral taker against the risk that its counterparty (the collateral giver) will become insolvent. In the international financial markets, the most sought-after form of collateral asset is cash (and, in particular, U.S. dollars). After that, interests in securities (and, in particular, interests in U.S. treasuries) comprise the most acceptable form of collateral. Interests in securities are highly liquid, and are easily valued. They are used to collateralize vast financial exposures under bank loan, custody, settlement, swaps, repossession, and securities lending arrangements. In addition to these private commercial arrangements, central banks use securities collateral in their money market operations.

A number of factors have increased the demand for securities collateral in recent years. These include a new concern to manage credit exposures following the market turbulence of 1998, and the need to achieve new regulatory capital efficiencies in an increasingly competitive market. The result of this increased demand is that high quality securities collateral has become a relatively scarce commodity. Because collateral takers are not always able to insist on U.S. treasuries, other forms of collateral are becoming more widely accepted, including treasuries issued from any OECD state, corporate debt securities, and even equities. Demand often exceeds supply,[5] and the markets are increasingly intolerant of delays in securities delivery.

These trends, together with the recent development of electronic securities trading, have brought about settlement pressures akin to the paper crunch of the 1970s and 1980s, rendering urgent the need for further efficiencies.

E. Intermediation

Settlement systems generally restrict direct participation to a small number of institutions, imposing financial and sometimes nationality criteria. The number of investors and collateral takers greatly exceeds the number of participants in settlement systems. Those who wish to hold interests in securities, but are not participants in the relevant settlement systems, must hold such interests indirectly, through participants who act as their custodians. Thus, the custodian stands in the chain of ownership between investors and issuers. Another factor contributing to the use of intermediaries in the securities markets is cross-border investment. Many functions relating to foreign securities are more safely and conveniently carried out in the local markets; these include dealing with local issuers and tax authorities. Accordingly, it is customary to hold foreign securities through banks in the jurisdiction of the issuer acting as local custodians. For the above reasons, many investors and collateral takers hold their assets indirectly, through one or more depositaries, custodians, and other intermediaries. A client may be separated from the issuer of the underlying

5. For example, after the market disturbance in the second half of 1988, the market experienced a flight to quality as major sums were invested in treasuries. Anecdotally, liquidity in treasuries dried up almost entirely.

securities by a chain of intermediaries spanning a number of jurisdictions. In certain repackaging arrangements, ten or even fifteen such intermediaries would not be unusual.

1. *Pooling*

Such intermediaries generally have a large number of clients, and they usually hold the interests of their clients in any particular type of interests in securities together in a commingled pool, so that the interest of each client is unallocated. The interests of the intermediaries' respective clients in these commingled pools are recorded in electronic accounts maintained by the intermediary.[6]

III. Interests in Securities[7]

This article will argue that such intermediation significantly affects the legal nature of the asset. One must distinguish between securities, which are held directly (so that the investor is in a direct relationship with the issuer), and interests in securities, which are held through one or more intermediaries on an unallocated basis. Thus, interests in securities comprise the assets of a client for whom an intermediary holds securities (or interests in securities) on an unallocated basis, commingled with the interests in securities of other clients. In legal terms, these assets are not the same assets as the underlying securities. To take the example of the asset of a participant in Euroclear, a major settlement system located in Belgium, in respect of Italian bonds, the interest of the participant is indirect and unallocated. It arises under Belgian law on the basis of a Belgian account entry. It does not attach to particular underlying bonds. For these reasons it is intangible. In contrast, the underlying depositary acting for Euroclear directly holds the underlying bonds. This holding is allocated (i.e., attaches to particular bonds) and arises under Italian law on the basis of possession. Because it attaches to the physical paper held by the depositary, the asset of the depositary is tangible. It follows that the asset of the participant is legally distinct from the asset of the depositary.

Although the underlying securities and the interest of the investor are legally distinct, they are the same in economic terms.[8] This is on the basis that the investor's asset is not at risk in the event of the insolvency of any intermediary. In economic terms, the holder of interests in securities has all the risks and rewards of ownership of the underlying securities. This accords with the balance sheet[9] and regulatory capital[10] treatment of interests in securities.

The use of multiple intermediaries suggests the image of a series of Russian dolls, one inside the other, with the smallest doll containing a jewel. Each doll is different from every

6. For an analysis of the position where clients' assets are commingled with the intermediary's assets, see Steven L. Schwarcz, *Intermediary Risk in a Global Economy*, 50 DUKE L. J. (forthcoming April 2001).

7. A number of distinguished authors have contributed to this area of legal analysis. In particular, the author wishes to acknowledge the work of the following: Professor Steven Schwarcz, Professor James Rogers, and Professor Jean Schroeder (on the U.S. position); Sir Roy Goode (on the English position); and Randall Guynn and Richard Potok (on the international position).

8. Of course, the investors face the risk of fraud and negligence by the intermediaries; this should not be significant as they are regulated institutions.

9. The investor shows securities, and not interests in securities, on its balance sheet.

10. The regulatory capital weighting of interests in securities follows the credit rating of the issuer of the underlying securities and not that of the intermediary.

other doll, although the value of all the dolls derives alike from the jewel. The jewel equates by analogy to the underlying securities, and each doll to a different interest in securities.

This legal analysis informs the drafting of revised Article 8 of the U.S. Uniform Commercial Code.[11] Legislation in Belgium[12] and Luxembourg[13] takes the same approach, which accords with article 9(2) of the Securities Finality Directive[14] in relation to conflict of laws issues. While further legislative clarification in the United Kingdom would be welcome, the author would argue that the treatment of securities and interests in securities as separate assets is correct under the existing principles of English law.

It will be argued that this analysis is useful, as it enables market participants to simplify the legal analysis of the cross-border electronic markets in securities, and thereby address important areas of legal risk. However, other areas of legal risk may be more difficult to address, as they reflect policy concerns. The following discussion will seek to distinguish between the two types of legal risk.

IV. Security of Transfer

A transfer is secure if the transferee, being a good faith purchaser, is able to retain the transferred asset free from adverse claims. In practice, adverse claims most often come from one of two sources. These are the transferor's liquidator (insolvency displacement) and the defrauded clients of the transferor (beneficial owner claims). These will be considered in turn.

A. Insolvency Displacement

If the transferor of securities is affected by insolvency at the time of transfer or shortly thereafter, the transfer may be challenged under the provisions of insolvency law. The general policy behind such provisions is a desire to protect the interests of general creditors.

Dispositions made after commencement of insolvency proceedings are generally void.[15] After the commencement of insolvency proceedings, a number of days may pass before they become public. Further, under zero hour rules, the timing of the commencement may be moved back to the beginning of the twenty-four-hour day. This means that at any particular time, the transferee has no way of knowing if the transferor will subsequently be treated as having been insolvent at that time. It follows that the transferor cannot know whether any transfer to it may be avoided as a post-insolvency disposition.[16]

The periods leading up to insolvency are colloquially known as the hardening periods. Transactions entered into during a statutory hardening period may be set aside under displacement provisions designed to protect general creditors. Examples in the United Kingdom are the setting aside of transactions that are entered into at an undervalue[17] and the

11. It informs the concept of securities entitlements. *See* U.C.C. §§ 8-102(a)(17),8-501 (1994).

12. The Royal Decree No. 62 of Nov. 1967.

13. The Grand-Ducal Decree of Feb. 17, 1971.

14. Council Directive 94/19/EC, 1994 O.J. (L135/5).

15. *See* Insolvency Act 1986, § 127 (1986) (U.K.).

16. The court can ratify transfers in these circumstances, and often will if they were made for value.

17. *See* Insolvency Act 1986, § 238. Broadly, the company either received no consideration or insufficient consideration in return for the value that it provided. *See id.* § 240. The hardening period for this section is six months, or two years if (broadly) the transferor and transferee are connected. *Id.*

invalidation of transactions that are deemed to constitute preferences in favor of certain creditors.[18]

As a general rule, transferees of interests in securities may ensure that the transfers will not be challenged as transactions at undervalue or preferences if the assets are transferred pursuant to bargains entered into at market value and in good faith at arms-length commercial terms.[19] However, it is harder to ensure that a transfer will not be avoided as a post-insolvency disposition.

The risk of insolvency displacement is particularly problematic in settlement systems, where one delivery often is interdependent on another, and the disruption of delivery may introduce systemic risk. For this reason, special statutory regimes have been introduced to protect certain major settlement systems from the rules of insolvency displacement.[20] However, because such regimes prejudice the rights of creditors, they are not generally available to smaller systems. These policy considerations may serve as a centralizing factor, retaining settlement business in the major systems, and in some measure counteracting the opposing trend towards fragmented securities trading, as business moves away from the traditional exchanges and towards a larger number of smaller, alternative trading systems. In any case, a clear policy debate about the relative claims of general creditors and the minor settlement systems would be helpful.

B. Beneficial Owner Claims

Beneficial owner claims may arise where the transferred assets belong beneficially to the clients of the transferor, but the transferor transferred the assets without her clients' authority. The clients as beneficial owners may seek to claim the transferred assets in the hands of the transferee.

Some might argue that the fundamental principles of commercial law are clear and readily understood. However, they regularly conflict with each other. The principle of security of transfer provides that a transfer of assets to a good faith purchaser should not be reversed. The principle of security of title provides that fraud should not be effective to deprive a person of her assets. The question of beneficial owner claims brings these two principles into direct collision.

A central function of commercial law is to deal with the competing claims that arise as a consequence of fraud and insolvency. Of course, fraud and insolvency often go together.[21] The following factual scenario recurs in case law. A entrusts her securities to B, retaining

18. *See id.* § 239. Broadly, the company was influenced when entering into the transaction by a desire to improve the position of the collateral taker in its insolvency. *See id.* § 240. As with section 238, the hardening period for section 239 is six months, or two years if (broadly) the transferor and transferee are connected. *See id.* § 245. Also, floating charges are invalidated in certain circumstances where they are given in respect of a pre-existing debt.

19. Where the transfer is by way of a security interest, it should be in relation to new debt, that is, not securing existing unsecured debt, because of the provisions avoiding certain floating charges.

20. *See* Council Directive 94/19/EC, *supra* note 14. Where interests in securities are delivered within EU settlement systems, the Settlement Finality Directive is designed to provide protection in certain circumstances from such insolvency displacement. *See also* Companies Act 1989, pt. VII (1989) (U.K.). In the United Kingdom, anti-displacement measures are also provided for in key markets and settlement systems under Part VII of the Companies Act 1989.

21. Fraud often only comes to light on the insolvency of the fraudster and may arise in an attempt to stave off insolvency.

property rights in them. B fraudulently sells A's securities to C or delivers them to C as collateral. C acquires the securities for value and in good faith, without notice of B's breach of duty. A discovers the fraud and sues C for the return of the securities. By this time B has absconded or become insolvent. The court therefore hears a dispute between A[22] and C.[23]

There is no easy way to resolve this perennial dispute between the defrauded true owner and the bona fide purchaser. Assuming both A and C have acted in good faith and without negligence, each is innocent. But one has to lose, and so the law has to select a victim. The doctrine of security of title favors A while the doctrine of security of transfer favors B.

In English law, different rules apply in different circumstances, and it is important to note that the computerization of the securities markets affects the application of the rules, arguably reducing security of transfer. Historically, in order to promote security of transfer in the market in bearer debt securities, commercial law developed the concept of the negotiable instrument. In relation to negotiable instruments, honest acquisition confers good title. The holder in due course of a negotiable instrument can (unknowingly) acquire good title from a thief. However, under many systems of law (including English law) intangible and unallocated assets such as interests in securities cannot satisfy the traditional definition of a negotiable instrument. This is because negotiation involves the transfer of possession of an instrument and possession involves the physical control of a tangible asset. As intangibles, interests in securities cannot be possessed and therefore cannot be negotiated. Furthermore, the traditional understanding of the term instrument is of a formal paper document, and the law relating to negotiable instruments presumes that a negotiable instrument will take the form of a physical document that can be delivered, signed on its face, and endorsed. Computerization may also affect another legal rule on which good faith purchasers have traditionally relied. Under English law, the natural characterization of the intermediary holding interests in securities for clients is as trustee.[24] On the basis that intermediaries hold their clients' assets as trustee, such clients will sue under the rules of equity if and when they are defrauded. The most important defense to an action in equity is that of the bona fide purchaser of the legal estate for value and without notice (also known as equity's darling). A component of this defense is the acquisition of a legal interest. Thus, if the assets acquired by the transferee are equitable interests arising under a trust, the defense of equity's darling will not be available.

It has been argued that under the general legal principles of certain systems, including English law, the transition from securities to interests in securities has reduced security of transfer in the secondary markets. While the correct balance between security of transfer and security of title is a question of policy, there may be a case for a statutory provision to reverse some of the losses to security of transfer that have been brought about by computerization.

V. Formalities of Transfer

Legal formalities associated with the transfer of debts and other intangible assets constitute a major legal challenge in the international financial markets. For example, a consid-

22. Who says to C, "Those are my securities and I want them back."

23. Who says, "I didn't know they were yours and I gave good money for them."

24. This is on the basis that the alternative characterization, namely that of bailee, is not available as bailment can only relate to tangible assets.

erable part of the legal complexity associated with traditional securitization relates to the transfer of the underlying assets from the originator to the special purpose vehicle (SPV). It is crucial to establish that this transfer is effective to confer property rights that are not at risk in the insolvency of the originator. If this is not established, credit rating agencies will not be willing to rate the new securities on the basis of the credit assessment of the underlying assets, rather than that of the originator. It is also necessary to establish that the transfer leaves the originator with no residual rights in the assets. If this is not established, the regulators of the originator will not relieve it of the regulatory capital burden of the underlying assets, and also the risk may be present that the transfer is recharacterized as a mere security interest. In a traditional securitization, where the documentation of the underlying assets is not uniform, establishing whether each asset is transferable[25] (and if so, under which system of law) may involve a major due diligence exercise. When a range of legal systems is involved, foreign legal fees must be incurred in establishing their requirements. Complying with those requirements may not always be practicable.[26] Thus, in traditional securitization, the transfer of the underlying assets is a major source of legal expense, and possibly of legal risk.

A. Assignment

A perennial difficulty is that legal assignment of debts and other claims generally requires written notice of assignment to be given to the debtor. In many cases this will also be impracticable, because of the large number of assets involved, or undesirable, where, for example, the originator wishes to preserve its commercial relationship with the debtor.[27] Under English law, an assignment of which notice is not given to the debtor may take effect in equity. However, equitable assignment has a number of disadvantages. Because the debtors will continue to treat the originator as their creditor, the SPV must rely on the originator (or a third party) to collect sums payable from debtors and remit them to the SPV. Moreover, in the absence of notice of assignment, set off may continue to apply between the debtor and the originator.[28] Under English law, a transfer of the underlying assets without notice to the debtors is generally effective to protect the SPV from the insolvency of the originator,[29] but involves administrative inconvenience, and may leave the SPV exposed to the fraud of the originator. Under other systems of law (particularly civil law systems), it may not be straightforward to achieve insolvency protection in such circumstances.

25. Certain assets may have arisen under documentation that contains restrictions on assignment.

26. Broadly speaking, civil law jurisdictions may not permit assignment to take place without notice to the debtor.

27. Even where it is feasible, legal assignment has certain disadvantages associated with it. The benefit but not the burden of a contract can be assigned so that any obligations associated with the underlying investment, such as the duty to make further advances under a loan, or to meet calls on partly paid investments, remain with the originator.

28. Other disadvantages of equitable as opposed to legal assignment are the risk of double dealing (if the originator subsequently transferred the asset to a third party under a legal assignment, the third party would take priority provided it had no notice of the prior equitable assignment) and enforcement formalities (the SPV as equitable assignee cannot sue the debtor in its own name, but must join the originator in any enforcement action).

29. An equitable assignment is effective to confer a property right in the assigned asset. However, this is subject to insolvency displacement and recharacterization risk.

B. CBO

A relatively recent form of repackaging known as collateralized bond obligations (CBO), neatly side steps the legal assignment problems traditionally associated with securitizations. CBOs were originally developed in the United States in the late 1980s. During the course of the 1990s, the use of CBOs grew tremendously, with CBOs being established in Europe and (more recently) issued outside the United States. The last half of 1999 saw English law CBOs issued as a European product, and these are expected to grow significantly in the new millennium. Two distinct kinds of CBOs have developed. In a traditional CBO, the issue of notes is supported by a portfolio of (interests in) bonds, in which noteholders acquire a property interest. In contrast, in synthetic CBOs, credit derivatives (usually credit default swaps) are used to replicate the economic effect of such property rights. This discussion is concerned with traditional CBOs.

A CBO involves the repackaging of a portfolio of underlying (interests in) bonds, which may be issued from more than one jurisdiction, in which direct investment would be relatively unattractive to investors, into new securities (usually notes) that represent more attractive investment opportunities. The underlying bonds may be unattractive because there is a significant risk that their issuers will default, for example, because the issuer is a commercial company with a relatively low credit rating or an emerging markets issuer. The new notes (or a preferred class of them) are more attractive for a number of reasons. Most importantly, they achieve a high credit rating. Whereas the underlying (interests in) bonds are below investment grade or even ungraded, the new notes are usually graded triple A, through the use of credit enhancement techniques. In order to maintain this high credit rating and preserve the stream of payments to noteholders, the underlying portfolio of bonds is actively managed.

CBOs may serve a range of different purposes. They have recently been used to a significant extent by European banks as a method of enhancing their financial performance by reducing their regulatory capital burden. CBOs may also be used to assist corporate issuers who would not otherwise have access to the capital markets, by repackaging their new bonds as they are issued. Alternatively, CBOs may be used as a way of disposing existing holdings of emerging market bonds or other underlying securities for which there might be a less ready market.

1. *Novation*

In contrast to traditional securitizations, the transfer of the underlying assets in a CBO is tremendously simplified by the use of the major settlement systems. This is because the legality of debiting one securities account and crediting another is not assignment but novation. Transfer by novation[30] is a technique for transferring contractual claims. It is best explained by example. Suppose there is a contract between A and B. B wishes to transfer her interest under the contract to C. This can be achieved by novation if A, B, and C agree together that a new contract between A and C shall replace the old contract between A and B. To be accurate, novation is not a form of transfer because C's asset arises under a new contract and is therefore not the same as B's asset, which is extinguished by the contract.

30. Novation means making anew. As well as being used as a technique of transfer, novation is also used as a technique of netting.

However, it has the same economic effect as a transfer, because the old and new contracts are on like terms.

The transfer of registered securities by registration may be characterized as a form of novation, by equating the issuer with A in the above example. In the United Kingdom, the recent case of *Regina v. Preddy*[31] indicates that book-entry transfer (i.e., the transfer of assets by debiting the transferor's account and crediting the transferee's account) proceeds by novation.[32] On the basis that novation and not assignment is taking place, there is no requirement to serve notice on the obligor. Thus, the perception that the computerization of the securities markets changes the nature of the asset, from securities (which may be assignable) to interests in securities (which are not), serves significantly to simplify the legal aspects of transfers.

VI. The Perfection of Security Interests

It was argued above that the use of electronic settlement, together with correct analysis of the transferred asset as interests in securities, radically simplifies the formalities of transfer in the international securities markets. The same simplification is available, on the same basis, for the perfection of security interests. This point relates to the situs, or legal location, of interests in securities.

In conflict of laws, the *lex situs* rule provides that property rights in an asset are determined by the law of the place where the asset is located, or *lex situs*. In the relevant case law, the chief policy reason that is given for the *lex situs* rule is commercial convenience. A number of cases stress the importance of the rule in enabling the purchaser of goods to establish title with certainty. In cross-border situations, third parties are most likely to assess the availability of assets under the law of the place where the assets are located, hence the *lex situs* rule. The rule may, in part, be attributable to the pragmatic desire of judges to avoid making futile orders. Because an order relating to, for example, French land can only be enforced in France with the cooperation of the French judiciary, any such order that is at odds with the mandatory provisions of French law will be unenforceable in practice. In matters before English courts, the identification of the situs of an asset will be determined by English law as the law of the forum.

The *lex situs* rule has long been applied to tangible assets such as land and chattels. More recently in the United Kingdom, the Court of Appeal's decision in the case of *Macmillan v. Bishopsgate*,[33] has confirmed that the rule applies to tangible and intangible assets alike. This issue has clear relevance where interests in securities are used as collateral. If property rights in intangibles are determined by *lex situs*, it follows that security interests require perfection under *lex situs*.

The challenge is how to identify the situs of interests in securities held through multiple intermediaries. The physical location of a tangible asset at any time is a question of fact. Its situs is a question of law. In most cases,[34] situs and physical location coincide. Of course,

31. Regina v. Preddy [1996] A.C. 815 (House of Lords).

32. The case concerned the book entry transfer of cash in the context of mortgage fraud.

33. *See* Macmillan v. Bishopsgate (No. 3) [1996] 1 WLR 387, 404, 405 (per Staughton LJ), 410, 411, 412 (per Auld LJ), and 423, 424 (per Aldous LJ). This complex judgment indicates overall that *lex situs* is relevant, rather than *lex loci actus*, which was favored by Millett J in the first instance decision, [1995] 1 WLR 978.

34. Albert Venn Dicey, Dicey and Morris on the Conflict of Laws 22E-057, 22E-060 (1993). There are exceptions for casual and transitory sitae.

intangible assets have no physical existence and therefore no physical location. However, the courts developed rules whereby a legal location or situs might be conferred on an intangible asset by virtue of a legal fiction. The general rule is that a debt is located where it is payable and recoverable in the normal course. In the case of simple contract debts, this is where the debtor is resident. For a bank debt payable at a particular branch, this is where the branch is located, and for a debt under a letter of credit this is the location where it is payable under the terms of the documentation. The proposition that an intangible is located where it is payable and recoverable in the normal course accords with the observation made above that the *lex situs* rule is based partly on pragmatic considerations of enforcement. The rules for attributing a situs to the traditional forms of securities might very broadly be summarized as follows. The situs of a traditional bearer security is the physical location of the instrument constituting it. The situs of registered securities is generally determined by the location of the register, as this is the place where dealings in them must be recorded in order to confer title. This is usually the same as the place of incorporation, but in cases where share transfers are required to be recorded in a branch register, the location of the branch register, and not the residence of the issuing corporation, prevails as situs.

A. The Situs of Interests in Securities

The rules for attributing a situs to a security, which were very broadly summarized above, are well settled. In contrast, the question of how a situs should be attributed to an interest in securities has generated a fierce and continuing debate in the international legal community. This article has argued that securities and interests in securities are different types of assets, having different legal characteristics. Therefore, it would be incorrect to assume, for example, that the situs of a physical bearer bond is the same as the situs of an unallocated, indirect, and intangible interest in such a bond.

This section considers the situs of the interest of a participant in an international settlement system such as Euroclear, Clearstream, and DTC (the settlement systems), to whose account interests in securities are credited.[35] It will argue that the situs of such interest is the local law of the office where the settlement system maintains the participant's account, that is, Belgium in the case of Euroclear, Luxembourg in the case of Clearstream, and New York in the case of DTC. This approach accords with existing customary practice in the securities markets, whereby security interests in such assets are perfected under, for example, Belgian law in the case of a Euroclear account.[36]

35. The following discussion represents the author's views, as they were developed with a group of leading lawyers practicing in this area during discussions that took place during 1998. The assistance of the following in the preparation of this discussion is gratefully acknowledged: Luigi De Ghenghi, formerly Vice President and Resident Counsel, Morgan Guaranty Trust Company of New York, Brussels Office, as operator of the Euroclear System; Randall Guynn, Partner, Davis Polk & Wardwell; Tim Herrington, Partner, Clifford Chance; Guy Morton, Partner, Freshfields; Ed Murray, Partner, Allen & Overy; Richard Potok, formerly of Davis Polk & Wardwell; Richard Slater, Partner, Slaughter & May; Larry Thompson, Senior Vice-President and Deputy General Counsel, Depository Trust Company of New York; Francoise Verbiste, Lawyer, Clearstream (formerly Cedel Bank); and Philip Wood, Partner, Allen & Overy. *See* Joanna Benjamin, [1999] J. Int'l Fin. Markets 68–71; *see also* Joanna Benjamin, The Law of Global Custody, 10 J. Int'l Banking & Fin. L. 253–357 (1996); Oxford Colloquium on Collateral and Conflict of Laws (1998). A leading contributor to this debate, Richard Potok of Potok & Co., London, calls this approach the "place of the relevant intermediary approach" (PRIMA).

36. That is, security interests over interests credited to Euroclear accounts are perfected under Belgian law, Luxembourg law in the case of Clearstream, or New York law in the case of DTC. The local law requirements for perfection in these systems of law are convenient.

In the case of each settlement system, a local statutory regime affects the rights of participants in respect of securities held through those systems.[37] In each case, by virtue of this regime, the contractual arrangements with the relevant settlement system and the practical arrangements put in place by the settlement system, the asset of the participant takes on a special character and is different from the underlying securities. As discussed above, the interest of the participant is unallocated, indirect, and intangible. However, this asset is not at risk in the insolvency of the operator of the settlement system. In accordance with the local law of each settlement system's jurisdiction, participants' interests in securities would not be available to the creditors of the operator in its insolvency. Accordingly, such settlement arrangements do not expose participants to the credit risk of the operator.

It was seen above that the rules for attributing a situs to an intangible asset are informed by a pragmatic concern for the practicalities of enforcement. Broadly speaking, claims are legally located where they are enforceable in the normal course of dealing; this often coincides with the place where they are recorded and delivered. Now the interests of the participant are recorded and deliverable only in the accounts of the settlement system and, in the normal course (i.e., in the absence of default by the issuer or clearing system operator), enforceable only against the operator. On this basis, it is argued that the situs of the interests of the participant is the location of the office of the settlement system where the accounts are maintained. This will be called the account-based approach. The author is delighted that this view finds support in the thirteenth edition of *Dicey & Morris*, the leading English text on conflict of laws.[38]

The account-based approach is consistent with the position under the rules of private international law of Belgium, Luxembourg, and New York,[39] respectively.

B. Reject Depository Jurisdiction

In the case of interests in immobilized securities, where a physical, global instrument constituting the underlying securities is held by a depository for the clearing system, some might seek to argue that the property rights of participants are determined by the law of the jurisdiction in which such instrument is located. However, the interest of the participant must be distinguished from the underlying instrument. The argument that the interest of the participant is located with the depository of the underlying instrument involves conflating the interest of the participant with the underlying securities. As shown above, the two are distinct. At a practical level, global instruments are in many cases held with depositories in the jurisdiction in which the closing of the issue took place. Many global instruments are held for Euroclear and Clearstream by depository banks in London. However, participants will not know (nor have any contractual right to discover) the location of the global instrument. Accordingly, this approach reveals no straightforward way of perfecting a security interest.[40] Moreover, where international portfolios of securities are used as col-

37. *See* The Belgian Royal Decree No. 62 of Nov. 1967; *see also* The Luxembourg Grand-Ducal Decree of Feb. 1971; N.Y. U.C.C. Law, art. 8 (2000).

38. *See* Dicey, *supra* note 34, at 986.

39. In the case of the DTC, this is achieved contractually under the documentation entered into between participants and the DTC, in accordance with article 8.110 of the Uniform Commercial Code.

40. Because participants do not have accounts with the depositary and because the depositary does not take instructions from participants, a participant cannot perfect any security interest at that level.

lateral, the relevant global instruments may be held in a range of different jurisdictions. In practice it may not be feasible for participants to consult a range of foreign lawyers in respect of one collateral arrangement. Many collateral arrangements permit substitution, and here the challenge would be more acute because a changing class of jurisdictions would be involved. Thus, this approach is wrong in principle and unworkable in practice.

The account-based approach avoids this uncertainty and fragmentation. The courts have shown a strong desire to develop rules of private international law that are convenient to business people and to support the secondary markets by enabling transferees to establish title without having to inquire into more than one system of law. These are all reasons to avoid disturbing existing market practice (whereby security interests over entitlements held through Euroclear are, for example, perfected in accordance with Belgian law) and to reject reference to the jurisdiction of the underlying depositary.

C. Settlement Finality Directive

The Settlement Finality Directive[41] was introduced with a view to reduce risk in payment and securities settlement systems within the European Union. Much of the impetus for the Settlement Finality Directive came from the introduction of TARGET, the real time, large value euro payment system. Article 9(2) supports the account-based approach. The Settlement Finality Directive was implemented in the United Kingdom by the Financial Markets and Insolvency (Settlement Finality) Regulations 1999.[42] Article 9(2) of the Directive was implemented by Regulation 23, which tracks the terms of article 9(2) with minor amendments. Unfortunately, the implementing legislation interpreted these provisions narrowly and it would appear that the regulations do not apply to commercial collateral arrangements, where the collateralized exposure is not associated with the operation of payment and settlement systems. However, this article has argued that the position that would have pertained under a wide implementation of the Directive in the United Kingdom arises in any case by the general principles of conflict of laws under the record-based approach. Internationally, the same approach is recommended in a report prepared by Christophe Bernasconi with the assistance of Richard Potok of Potok & Co. for the Hague Convention on Private International Law entitled *The Law Applicable to Dispositions of Securities Held Through Indirect Holding Systems.*[43]

VII. Conclusions

Financial law follows financial practice, sometimes by a long distance. At times of rapid innovation, the gap between settled law and new practice widens. Willingness to bear some measure of legal uncertainty is the usual incident of financial innovation and may be its precondition. Financial business is risky business and legal risk is one of the many risks that financial institutions successfully manage. One should therefore not be unduly alarmed that

41. Council Directive 98/26/EC, 1998 O.J. (L166/45). Member States were required to implement the Directive by December 11, 1999. It was implemented in the United Kingdom by The Financial Markets and Insolvency (Settlement Finality) Regulations 1999 (SI 1999 No. 2979).

42. *See* SI 1999 No. 2979.

43. Christophe Bernasconi & Richard Potok, The Law Applicable to Dispositions of Securities Held through Indirect Holdings (Nov. 2000).

certain aspects of the cross-border electronic transfers in the securities markets raise novel legal questions. However, in managing such legal risks, it is helpful to divide them into two categories. First, legal risks associated with policy concerns (such as the rules of insolvency displacement and beneficial owner claims) may be an inevitable feature of off-exchange transfers, which market participants must factor into their risk analysis. Second, other legal risks (and, in particular, those associated with formalities of transfer and the perfection of security interests) may be radically reduced by the correct analysis of the legal nature of the interest of the investor and collateral taker in the cross-border electronic markets. Instead of paper-based securities in their traditional form, these assets comprise indirect, unallocated, and intangible interests in securities. It has been argued that this analysis is available under the general principles of English law and developed in the concept of securities entitlements under the U.S. Uniform Commercial Code, while the work of the Hague Convention may recommend it more widely in the international legal community.