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THE RISE AND EFFECTS OF THE INDIRECT HOLDING SYSTEM:
HOW CORPORATE AMERICA CEDED ITS SHAREHOLDERS TO INTERMEDIARIES

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Abstract

This paper explains how the choice of the indirect holding system for securities settlement forced U.S. issuers to cede their shareholder data to intermediaries. Part I describes the law applicable to the transfer of certificated securities. Part II describes how the paper-intensive process of transferring certificated securities led to a market failure in the 1960's. It further shows how the indirect holding system was seen as a temporary, second-best solution pending the dematerialization of shares and improvements in communications technology. In the mean time, the effects of separating beneficial and record ownership led to an expensive and inefficient process of shareholder communication and voting. Part III examines this process, whose inefficiency offered service providers the profitable niche industry of assisting issuers to distribute proxy materials through and around extensive chains of intermediaries. Part IV explains how, when law and technology had developed sufficiently to allow a return to a system of direct issuer-shareholder relationships via a direct registration system, intermediaries acted rationally to absorb DRS into the DTTC system, and continue to enjoy their central role between issuers and shareholders. This Part also demonstrates how a truly effective direct registration system could provide the transparency necessary to address problems such as "empty" voting and could arguably spread the costs of securities settlement more equitably through broader-based netting, rather than pushing them downstream. Part V argues that although the indirect holding system and its negative effects are no longer necessary, a combination of unawareness and interest serves to perpetuate a perceived need for issuers and shareholders to cede their ownership/governance relationship to a custodian utility, which then offers to put them back into contact, for a fee.

INTRODUCTION

I. THE TRANSFER OF REGISTERED SECURITIES UNDER ARTICLE 8 UCC

II. THE CREATION OF THE "INDIRECT HOLDING SYSTEM"

III. COMMUNICATING THROUGH INTERMEDIARIES

* Research Associate, Institute for Law and Finance, University of Frankfurt. This paper is an adaptation of part of the author's doctoral dissertation for the Faculty of Law of the University of Frankfurt, which will appear in October 2007 from the Peter Lang Publishing Group under the title: DER EINFLUSS DER WERTPAPIERABWICKLUNG AUF DIE AUSÜBUNG VON AKTIONÄRSRECHTEN: EINE UNTERSUCHUNG DER ENTSTEHUNGSGESCHICHTE UND AUSWIRKUNGEN DES AMERIKANISCHEN "INDIRECT HOLDING SYSTEM". The author would like to thank Professors Theodor Baums and Andreas Cahn for their advice and comments on the doctoral dissertation.

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INTRODUCTION

Communication between shareholders and corporations is necessary for everything from distributing dividends to casting votes at the annual meeting. Beginning in the 1970's, such communication became increasingly more complicated as more and more shares came to be held through intermediaries such as brokers, banks and central depositories. Today, with a mouse click, we can send each other data directly from any location to another at any time, so the difficulty of efficient communication between shareholders and companies is an anomaly. How did shareholders and the companies they own come to be isolated from each other? The answer is simple: a company's "shareholders" as they appear on the stockholders list are not really "shareholders", but only intermediaries.

One might think that shareholders instructed the intermediaries to take their place as registered shareholders for the sake of privacy, but in almost all cases they did not. Rather, Congress intentionally created the indirect relationship in 1975¹ to facilitate the settlement of trades in securities.² Since the transfer of a certificated, registered share is very paper intensive, when trading

² "Settlement of a securities trade involves the final transfer of the securities from the seller to the buyer and the final transfer of funds from the buyer to the seller." COMMITTEE ON PAYMENT AND SETTLEMENT SYSTEMS (CPSS) & TECHNICAL COMMITTEE OF THE INTERNATIONAL ORGANIZATION OF SECURITIES COMMISSIONS (IOSCO), RECOMMENDATIONS FOR SECURITIES SETTLEMENT SYSTEMS 38 (Nov. 2001); MICHAEL SIMMONS, SECURITIES OPERATIONS 261 et seq. (2002); HAL S. SCOTT, INTERNATIONAL FINANCE: LAW AND REGULATION 279 (2004); DAVID LOADER, CLEARING, SETTLEMENT AND CUSTODY 2 (2002).
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Volumes in the late 1960's began their climb towards their present heights, a backlog in paperwork threatened to bring down the entire securities market. The SEC and market participants agreed that it was necessary to reduce the amount of paperwork connected with share transfers. There were two, basic ways of doing this: have companies issue uncertificated, "electronic" shares (referred to as "dematerialization") that could be transferred by changing entries on the stockholders list, or have intermediaries stockpile shares in their vaults and transfer the shares on their books through entries on their custody accounts (referred to as "immobilization"). Both of these processes eliminate the physical delivery of share certificates. In the case of "dematerialization" the issuer itself creates uncertificated securities that can be transferred without the delivery of paper, and through "immobilization" one or more intermediaries pool securities in their custody, which allows transfers of such pooled securities to take place electronically on their books. In effect, the process of immobilization allows intermediaries to create something like an uncertificated, derivative entitlement based on the underlying pool of securities in their custody. As will be explained in Part II of this paper, because § 17A(e) Exchange Act as amended in 1975 requires all exchange-traded securities to be "immobilized", intermediaries in effect came to replace corporations as "issuers" of the dematerialized "securities" that were transferred as claims against their custody accounts, and they also came to replace shareholders as the persons registered on stockholders lists of corporations. Corporations would continue to issue their own shares, but these (certificated) shares could not be traded on a securities exchange until they were deposited with an intermediary, which enabled (uncertificated) claims on the accounts of the intermediary to be traded efficiently. Because corporations and their states of incorporation refused to make the leap to dematerialization in the 1970's, intermediaries stepped in to provide this service and thereby in many respects replaced the issuers. In this way, corporate America essentially ceded its direct relationship with shareholders to financial intermediaries in order to create a more efficient system of securities settlement.

The loss of direct communications between issuers and shareholders has caused significant, negative external effects. The means of communication foreseen in corporate law statutes was

3 The causes for and creation of the "indirect holding system" is discussed in Part II of this paper.
4 The rules applicable to the trading of "security entitlements" are discussed in Part IV of this paper.
6 A classic case of negative externalities is that of a train throwing sparks that set fire to farmers' fields on either side of the tracks. See RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 71 (6th ed. 2003). The
replaced by a complex process of navigating through a chain of intermediaries.\textsuperscript{7} In fact, the inefficiencies created by immobilization were so great that they alone were sufficient to host an entire industry offering services related to finding shareholders, distributing proxy materials and collecting voting instructions. These very services which feed off of the inefficiency of the indirect holding system are nearly the only experts capable of advising the SEC on whether the system can and should be changed.

Technology has advanced dramatically, yet the basic structure of the system has not. If corporations were unable to issue uncertificated shares in the 1970's, and technology of the time was not up to creating a reliable network on which transaction information could be electronically distributed, this is certainly not the case today. Most states now permit uncertificated shares\textsuperscript{8} and beginning in 2008, all issues listed on the New York Stock Exchange (NYSE) and the Nasdaq Stock Market must be dematerialized.\textsuperscript{9} Proprietary information flows safely through leased networks of fiber optic cables near the speed of light. So why are we not seeing a new era of direct communications between companies and shareholders? First, very few people other than those who profit from the securities settlement structure really look at the settlement system closely, and second, such intermediaries have absolutely no reason to advocate that they be cut back out of the issuer-shareholder loop. When a shareholder has to deal with a specific broker to receive proxy materials, cast votes or sell shares held through that broker, the broker has a strong tie to its customer and always knows where she can be contacted. This is a tie that can dissuade a move to a new broker. Even if financial intermediaries exercise selfless, enlightened judgment, it is reasonable for them to see their own services – which they know intimately – as competent, necessary and useful. Thus, although paper certificates, the cause of the "indirect holding system," are rapidly disappearing from the capital markets, the system and its negative effects linger like a fossil of an earlier stage of technological development.

This paper explains why the indirect holding system was created, the effects it has on those outside of the intermediary circle, and why it remains. Part I briefly reviews the transfer of registered securities under Article 8 of the Uniform Commercial Code to explain why securities transfers can be very paper intensive. Part II describes the "paper crunch" that nearly brought down the U.S. markets

\footnotesize{\textsuperscript{7}Indirect communication through the intermediary chain is discussed in Part III of this paper.\
\textsuperscript{8}EGON GUTTMAN, MODERN SECURITIES TRANSFERS § 1:13, p. 1-49 (updated to 2006); Jill M. Considine, \textit{Escaping the Parallel Universe of Paper Certificates}, SECURITIES INDUSTRY NEWS (July 12, 2004).\
\textsuperscript{9}See Part IV, Section 4.}
in the late 1960's, the solutions that were considered at the time, and the legislative imposition of "immobilization" as the chosen solution. Part III explains the negative externalities of this solution on shareholder communications. Part IV describes the system of securities transfer as it now exists, and Part V offers some possible explanations of why, although certificated securities are really no longer in use, direct shareholder communications show no sign of returning.

I. The Transfer of Registered Securities under Article 8 UCC

1. Transfer of Certificated, Registered Shares

   (a) Direct Transaction between Seller and Buyer

   The law applicable to transfers of shares of stock in the United States will be some form of Article 8, Investment Securities, of the Uniform Commercial Code (UCC), which has been adopted in all 50 states.\(^\text{10}\) Article 8 was substantially amended in 1978 and again in 1994 to adapt it to changing techniques for securities settlement.\(^\text{11}\) The 1978 amendments focused on strengthening the rules for the transfer of uncertificated securities, and the 1994 amendments then created a set of rules for transferring claims on securities held in custody accounts within the "indirect holding system", which had in the meantime become a hardened fact of the capital markets.\(^\text{12}\) Neither of these amendments made substantial changes to the existing common law rules for the direct sale and conveyance of certificated, registered shares. To transfer ownership of a registered security, it is essentially only necessary that there be a "voluntary transfer of possession."\(^\text{13}\) Because shares are immaterial and exist independently from their certification in paper, certificates serve as a sign of title.\(^\text{14}\) The effective delivery of the security certificate must be complete and unconditional,\(^\text{15}\) although delivery may take place through an escrow arrangement or other intermediating party.\(^\text{16}\) However, as will be explained in more detail below, if a securities intermediary were to act as the intermediating party, the security

\(^{10}\) Information on adoption of the UCC by individual states is available from the National Conference of Commissioners on Uniform State Law (NCCUSL) at http://www.nccusl.org.

\(^{11}\) See Uniform Commercial Code, Revised Article 8 (1994 Revision). Investment Securities, Prefatory Note (hereinafter "U.C.C., Article 8 Prefatory Note").

\(^{12}\) See U.C.C., Article 8 Prefatory Note.


\(^{14}\) RHODES, supra note 13, at 140.

\(^{15}\) Delivery subject to condition precedent becomes valid only after the condition has occurred. GUTTMAN, supra note 8, at § 6:2, p. 6-6, and Norton v. Digital Applications, Inc., 305 A. 2d 656 (Del. Ch. 1973).

\(^{16}\) GUTTMAN, supra note 8, at § 6:2, p. 6-6 et seq., and Katz v. Amos Treat & Co., 411 F. 2d 1046, 1054, note 7 (2nd Cir. 1969).
I. The Transfer of Registered Securities under Article 8 UCC

would have to be held in the account of and indorsed to the buyer for the transfer of a security to take place.\(^\text{17}\)

Although no writing is necessary for the valid transfer of a security, most sales take place with written contracts or orders evidencing the intent of voluntary transfer.\(^\text{18}\) Registered shares can thus be transferred without indorsement.\(^\text{19}\) However, a buyer who receives delivery of an unendorsed registered share has neither the right to demand entry on the stockholders list nor good title in the face of competing claims to the security.\(^\text{20}\) The notion of a bona fide purchaser receiving a negotiable instrument free of adverse claims has been somewhat altered in the post-1994 version of Article 8 with the introduction of the concept of "protected purchaser", a term borrowed from the Convention on International Bills and Notes prepared by the United Nations Commission on International Trade Law (UNCITRAL).\(^\text{21}\) In order to qualify as a "protected purchaser", the buyer must (1) give value;\(^\text{22}\) (2) not have notice of any adverse claim to the security;\(^\text{23}\) and (3) obtain control of it.\(^\text{24}\) The concept of "control" is very important in Article 8, and for a certificated, registered security it means that the security is delivered to the purchaser indorsed to him or in blank by an effective indorsement or is

\(^{17}\) If a securities intermediary were to act on behalf of the purchaser in acquiring possession of the security certificate, the purchaser would receive only a security entitlement against the intermediary rather than ownership of the security itself, unless the certificate were in registered form and registered in the name of the purchaser or specially indorsed to the purchaser. U.C.C., § 8-301(a)(3) (2005). See Part IV, Section 2.a.

\(^{18}\) U.C.C. § 8-113 (2005); GUTTMAN, supra note 8, at § 6:13, p. 6-41 et seq.

\(^{19}\) GUTTMAN, supra note 8, at § 6:13, 6-42; RHODES, supra note 8, at 135.


\(^{21}\) U.C.C., § 8-401 (2005), and GUTTMAN, supra note 8, at § 7:1, p. 7-3.


\(^{23}\) "Value" is defined in U.C.C., § 1-201(44) (2005), and is somewhat broader than the ordinary understanding of the related concept "consideration", as it includes past performances, such as a credit that has already been granted. See GUTTMAN, supra note 8, at § 7:13, pp. 7-34 et seq.; Matthesy v. Securities Processing Services, Inc., 444 F. Supp. 1009, 1021 (S.D.N.Y. 1974); Prisbrey v. Nobel, 505 F. 2d. 170, 176 et seq. (10th Cir. 1974).

\(^{24}\) The concept "adverse claim" as used in Article 8 is restricted to "a property interest in a financial asset and that it is a violation of the rights of the claimant for another person to hold, transfer, or deal with the financial asset," U.C.C. § 8-102(a)(1) (2005). The concept of "notice" includes both actual notice and the deliberate refusal of inquiring behind suspicious facts. U.C.C. § 8-105 (2005). See GUTTMAN, supra note 8, at § 7:14, p. 7-41 et seq., and SEC v. Credit Bancorp, Ltd., 386 F.3d 438, 447 et seq. (2d Cir. 2004).

registered by the issuer in the name of the purchaser. A protected purchaser acquires an interest in the security free of any adverse claim. Thus registered securities are usually transferred by indorsement and delivery. The UCC defines the term "indorsement" as a signature that "alone or accompanied by other words" is applied to a security certificate or a separate document to assign, transfer, or redeem the security or to grant a power to do the same. Thus an indorsement can also be applied to a stock power to transfer certificated or uncertificated securities. A valid stock power must sufficiently describe the securities, the seller and the buyer, as well as indicate the intent to transfer. The recipient of a stock power has a right to demand entry on the stockholders list. Stock powers present a number of advantages over indorsing individual certificates, and are thus often used in practice.

The UCC creates a number of default warranties in connection with a transfer of securities. Unless otherwise agreed, the seller and all indorsers warrant the purchaser that the certificate is genuine and unaltered, that they do not know of any fact that might impair the validity of the security, that there is no adverse claim to the security, that the transfer does not violate any restriction on transfer, and that the indorser – if a representative of the appropriate person – has actual authority to apply the indorsement. In effect, the transferor warrants that the purchaser will be able to register the transfer of title on the stockholders list. In follows that the concept of "good delivery" includes

27 U.C.C. § 8-106(b) (2005); see GUTTMAN, supra note 8, at § 6:19, pp. 6-60 et seq. The concept of "control" is especially important for receiving securities as collateral. See GUTTMAN, supra note 8, at § 6a:13, and Howard Darmstadt, Sandra M. Rocks & Steven O. Weise, A Model "Account Control Agreement" under the New Article 8 of the Uniform Commercial Code, 53 BUS. LAW 139 (1997). "Control" over a registered security is achieved by obtaining control of the security indorsed to the holder or in blank, or if the issuer registers the holder in the stockholders list. § 8-106(a) and (b).

28 U.C.C. § 8-303(b) (2005).

29 RHODES (2005), p. 146.


31 Identification of the parties would include their taxpayer identification numbers and identification of the securities would be made by reference to their "CUSIP" number. See GUTTMAN, supra note 8, at § 8-5, p. 8-10, and Bradford Trust Co. of Boston v. Merrill Lynch, Pierce, Fenner & Smith, Inc., 622 F. Supp. 208, 212 (S.D.N.Y. 1985).

32 GUTTMAN, supra note 8, at § 12:1, p. 12-2, and RHODES, supra note 13, at 140.

33 Stock powers present at least two advantages over indorsements directly on a security certificate. First, the power to transfer and the security certificates themselves can be transported separately, which reduces the risks if either is lost, and second, it allows sales and repurchases or security transfers that turn around quickly to avoid cancellation of the original certificate. See GUTTMAN, supra note 8, at § 8-2, p. 8-6; Matter of Legal, Braswell Government Securities Corp., 648 F.2d 321, 324 (5th Cir. 1981); Cosmopolitan Credit and Inv. Corp. v. Blyth Eastman Dillon & Co., Inc., 507 F. Supp. 954, 956 (S.D. Fla. 1981), and RHODES, supra note 13, at 146 et seq.

34 U.C.C. § 8-108(a) (2005); also see GUTTMAN, supra note 8, at § 7:4, p. 7-9 et seq.

35 See GUTTMAN, supra note 8, at § 7:1, p. 7-3 et seq.
assistance as necessary to effect the registration.\textsuperscript{36} The purchaser may demand that the seller provide proof of authority to transfer and other documents requisite to obtain registration of transfer.\textsuperscript{37} Such other requisite documents would today include a signature guarantee, letters of administration and tax documentation.\textsuperscript{38} Required documentation can also multiply because of the number of parties involved. Buyers demand signature guarantees and proof of powers because issuers will demand these documents before effecting the registration of transfer,\textsuperscript{39} especially in light of the fact that an issuer that registers a transfer pursuant to an ineffective indorsement or instruction is strictly liable for wrongful registration.\textsuperscript{40} If a signature guarantee is provided, the guarantor will then bear any costs of such liability.\textsuperscript{41}

From the above, it is obvious that even in a direct transaction between seller and buyer, the transfer of a certificated registered share entails a significant amount of paperwork: either the certificate or a stock power must be indorsed, the signature guaranteed, authority to transfer title documented, and the stock certificate and other documentation delivered, not to mention the registration of transfer on the stockholders list, the destruction of the old certificate and the issue of a new one. Because a transaction on a securities exchange will involve more parties, the necessary paperwork increases, as each party demands the basic documentation plus any other documentation considered necessary to decrease its risk or increase its rating vis-à-vis the next party in the transactional chain.

(b) Transaction on a Securities Exchange

Transactions on securities exchanges rarely take place directly between the seller and the buyer. In sales and purchases by persons other than brokers and specialists, the owner of the security will instruct a broker to sell, the broker\textsuperscript{42} will transfer the order to the exchange floor/system or a market maker, where it will be matched wholly or partially with one or more buy orders.\textsuperscript{43} Once the order is

\begin{footnotes}
\item[36] See GUTTMAN, supra note 8, at § 9:5 p. 9-10.
\item[37] See GUTTMAN, supra note 8, at § 7:1, p. 7-4. This is particularly true in the case of uncertificated securities because both delivery and control of a security are achieved through this registration, as will be discussed in Section 2 below.
\item[38] See GUTTMAN, supra note 9, at § 7:1, p. 7-4, footnote 26; also see U.C.C. § 8-307 (2005).
\item[39] U.C.C. § 8-402 (2005); also see GUTTMAN, supra note 8, at § 14:1, pp. 14-2 et seq. and § 9:5, p. 9-10.
\item[40] U.C.C. § 8-404 (2005); also see GUTTMAN, supra note 8, at § 14:1, pp. 14-1 et seq.
\item[42] Except perhaps when selling a large block, a broker would act for its own account rather than in the name of a disclosed principal. See GUTTMAN, supra note 8, at § 9:9, pp. 9-16 et seq.
\item[43] See ROBERT A. SCHWARTZ & RETO FRANCHIONI, EQUITY MARKETS IN ACTION 4, 156 et seq. (on order driven market), 191 et seq. (on intermediated market) (2004).
\end{footnotes}
I. The Transfer of Registered Securities Under Article 8 UCC

The transfer of registered securities under Article 8 UCC executed, the seller will have to deliver the executed certificate(s) to his broker so that the selling broker can deliver it to the buying broker, market maker, specialist, or central counterparty. Once the buying broker receives delivery, she will have to deliver to the issuer's transfer agent with a request for registration of transfer on the stockholder list. The latter, after inspecting all necessary documentation, will register the transfer, cancel the old certificate, and issue a new certificate to the buyer. Thus, beyond indorsement of the certificate and its delivery, each stage of the transaction will demand the documents, guarantees and assurances that constitute "good delivery" on the respective exchange. The amount of manual paperwork connected to the sale of a single share can therefore be significant.

2. Transfer of Uncertificated, Registered Shares

Uncertificated shares are transferred by registering the transfer on the books of the issuer. Thus the "delivery" of uncertificated shares, which is essential for transferring certificated shares, takes place either by registering the name of the transferee on the stockholders list or by a third party (who is not a securities intermediary) declaring to hold the share on behalf of the transferee. In order to attain the status of a protected purchaser, the buyer of uncertificated shares will still have to give value, not have notice of any adverse claim, and obtain control of the security. The absence of a certificate does not change either the notion of giving value or that of having notice of adverse claims, but it does change the manner in which control over the security is achieved. A transferee obtains control over an uncertificated share by having her name entered on the stockholders list. Thus registration by a transfer agent would fulfill the requirements both of "delivery" and "control". Because parties to the transfer would still likely require a signature guarantee on the stock power or transfer instruction used to transfer the uncertificated securities, the transfer would simply require

44 See GUTTMAN, supra note 8, at § 9:9, pp. 9-18 et seq. and DONALD T. REGAN, A VIEW FROM THE STREET 100 (1972).
45 The NYSE has developed a program referred to as "medallion guarantees" to standardize and rationalize the guarantee process for exchange transactions. See Rules of the New York Stock Exchange, Rule 200, available at http://rules.nyse.com (hereinafter "NYSE Rules").
46 For example, the "good delivery" rules used on U.S. exchanges may well limit the number of people who can provide an endorsement to market participants or persons who do not act in a fiduciary capacity, so as to reduce the risk of forged or unauthorized endorsements. See GUTTMAN, supra note 8, at § 9:19, p. 9-40.
47 See GUTTMAN, supra note 8, at § 6:4, p. 6-12.
48 As explained above, if a securities intermediary were to act on behalf of the purchaser in acquiring possession of the security certificate, the purchaser would receive only a security entitlement against the intermediary rather than ownership of the security itself, unless the certificate were in registered form and registered in the name of the purchaser or specially indorsed to the purchaser. U.C.C., § 8-301(a)(3) (2005).
49 U.C.C. § 8-301(b) (2005).
50 U.C.C. § 8-106(c) (2005).
51 See GUTTMAN, supra note 8, at § 6:4, pp. 6-12 et seq.
52 U.C.C. § 8-402 (2005).
payment of value, a transfer instruction or power with guaranteed signature, and registration of the transfer.\textsuperscript{53}

For this type of transfer to be executed on a securities exchange, two requirements must be met. First, the shares of the issuers traded on the exchange must be uncertificated (dematerialized), and second, the securities settlement system must be connected to the master securityholder lists kept by the transfer agents of the issuers. As Part II will explain, because neither of these conditions were met when trading volumes reached a point at which the paperwork (indorsement, physical delivery, cancellation, issue and delivery of new certificates) could no longer keep up with trading, intermediaries were forcefully inserted between issuers and their shareholders by law to allow transactions to be settled in a dematerialized manner on the books of the intermediaries.

\section*{II. THE CREATION OF THE "INDIRECT HOLDING SYSTEM"}

\subsection*{1. The "Paper Crunch"}

Up until the 1970's, most securities firms took care of their securities transfer paperwork through the manual work of clerks. A study performed by North American Rockwell Information Systems found that brokers might use an average of 33 different forms for a single security transfer.\textsuperscript{54} As trading volume steadily increased in the late 1960's, brokers fell behind in this "back office" processing of transaction settlements. Although the volume was slight by today's standards, the unforeseen growth had dramatic effects. Daily volume on the NYSE more than quadrupled from about three million shares per day in 1960 to approximately 13 million shares per day in 1968,\textsuperscript{55} without the industry taking any serious steps to increase the efficiency of their settlement activity.\textsuperscript{56} The increase was loaded mostly into the end of the period, and from 1966 to 1967 annual trading volume increased by 33\%, reaching 2.53 billion shares.\textsuperscript{57} During 1969, the inability of some brokerage firms to settle transactions created massive backups in deliveries, so that unperformed obligations could range from 70\% to 200\% of a firm's total assets.\textsuperscript{58} Firms were forced to cover short positions caused by missing securities by making open market purchases. This worked as long as cash

\begin{itemize}
  \item See GUTTMAN, supra note 8, at § 9:6, pp. 9-11 et seq.
  \item SEC, UNSAFE PRACTICES STUDY, supra note 54, at 28, and BARUCH, supra note 54, at 85 et seq.
  \item Id., UNSAFE PRACTICES STUDY, supra note 54, at 28, 96.
  \item Id. at 13.
  \item Id. at 102. Losses from fails and related unperformed obligations climbed nearly 300\% between 1961 and 1969. See Id. at 100.
\end{itemize}
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flow was high, but as the market turned downward in 1970, brokers found their working capital diminished, which forced them into default on outstanding delivery obligations for which the securities had been lost or misplaced.\(^{59}\) As a result, over 100 brokerage firms either entered bankruptcy or were acquired by stronger competitors.\(^{60}\) Although this is not remembered as one of the more important market crises of U.S. financial history, it was the largest challenge to the securities exchanges since the crash of 1929, and led directly to the Securities Acts Amendments of 1975.\(^{61}\) The few references it receives in legal history refer to with peculiar epitaphs such as the "back-office crisis"\(^{62}\) or the "paper crunch"\(^{63}\) because it was caused by the simple inability of brokers to process the paperwork connected with the settlement of the growing number of exchange transactions.\(^{64}\)

Both the SEC\(^ {65}\) and a number of authors writing in the 1970's, including Chris Welles,\(^ {66}\) Hurd Baruch,\(^ {67}\) and Donald Regan,\(^ {68}\) documented in some detail the circumstances that led to this improbable crisis. During the "go-go" years of the 1960's, a number of brokerage firms greatly expanded their sales forces without similarly investing to increase the capacity of their "back office" operations.\(^ {69}\) Welles speculates that the monopolistic position of the New York brokers, who at this time enjoyed both fixed commissions and rules against outside competition, dissuaded them from tying up funds to improve their internal systems by installing the type of automated data processing that had been offered to them since the 1950's.\(^ {70}\) Yet as the number of orders and transactions grew, so did the volume of unfulfilled deliveries. One relatively large brokerage firm that had been a member of the NYSE since 1941, Dempsey-Tegeler & Company, Inc.,\(^ {71}\) saw its unfulfilled deliveries climb

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59 Id. at 96.
62 BARUCH, supra note 54, at 85.
64 SEC, UNSAFE PRACTICES STUDY, supra note 54, at 28. Also see WELLES, supra note 60, at 172 et seq. and REGAN, supra note 44, at 104 et seq.
65 SEC, UNSAFE PRACTICES STUDY, supra note 54.
66 WELLES, supra note 60.
67 BARUCH, supra note 54.
68 REGAN, supra note 44.
69 SEC, UNSAFE PRACTICES STUDY, supra note 54, at 11 et seq.
70 WELLES, supra note 60, at 125 et seq.
71 WELLES, supra note 60, at 212.
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from about $2.6 million in 1968 to approximately $12 million in 1969, a sum which was twice the firm's total assets.\(^{72}\)

During the last six months of 1968 and part of 1969, the volume of failed deliveries forced the NYSE to close one day per week and then hold abbreviated trading hours in order to give members time to catch up on their paperwork.\(^{73}\) Even after taking such measures, however, in December 1968 the NYSE still showed more than $4 billion in outstanding delivery failures,\(^{74}\) which included around $11 million from the accounts of Dempsey-Tegeler alone.\(^{75}\) Because securities often carry rights to distributions such as dividend or interest payments, the backlog of paperwork meant that such distributions were not paid on time. For example, in 1969 Dempsey-Tegeler failed to pay out approximately 80% of the dividends due its clients although it had actually received the funds from the respective issuers.\(^{76}\) During the same year, even the much more competent Merrill Lynch, Pierce, Fenner & Smith Inc. did not pay about $21 million in dividends to its clients on time.\(^{77}\) In order to cover such outstanding obligations, some brokers illegally used the free balances of their clients to cover obligations due to others.\(^{78}\)

Some firms tried to shift to automated systems on the run during the bull market – occasionally with disastrous results.\(^{79}\) These failed attempts to automate may well have colored the decision-making at a later date, when the SEC and market participants chose between high- and low-tech solutions to the securities settlement problem. One example that Welles describes in detail is the ill-fated attempt of McDonnell & Company, a prosperous brokerage firm in the 1960's, to make the transition to automated settlement. When the booming market approached its apex in 1968, McDonnell paid a computer firm named Data Architects about $3 million to design and install a computerized settlement system to take over the settlement burden from the firm’s flagging team of back-office clerks.\(^{80}\) Because during the installation period McDonnell continued to engage in high volume trading, it was forced to outsource much of its paperwork to another firm at significant cost.\(^{81}\) Unfortunately for both McDonnell and Data Architects, the latter's "innovative" system design had

\(^{72}\) SEC, UNSAFE PRACTICES STUDY, supra note 54, at 101 et seq.
\(^{73}\) REGAN, supra note 44, at 104, and SEC, UNSAFE PRACTICES STUDY, supra note 54, at 219-20.
\(^{74}\) SEC, UNSAFE PRACTICES STUDY, supra note 54, at 19; also see REGAN, supra note 44, at 104.
\(^{75}\) SEC, UNSAFE PRACTICES STUDY, supra note 54, at 105.
\(^{76}\) Id. at 109 et seq.
\(^{77}\) Id. at 109.
\(^{78}\) Id. at 123 et seq.; also see BARUCH, supra note 54, at 21 et seq. and 33 et seq.
\(^{79}\) SEC, UNSAFE PRACTICES STUDY, supra note 54, at 13 et seq.
\(^{80}\) WELLES, supra note 60, at 196.
\(^{81}\) Id. at 195.
some bugs and the contractors failed to formulate a feasible transition plan or train McDonnell employees on the new system; in addition, these same employees also apparently sabotaged the new system out of fear that they would lose their jobs to a computer.\textsuperscript{82} As a result, the transition never occurred, and in December of 1968 McDonnell had about $9.3 million in securities that it could not place to specific owner-customers and unfulfilled deliveries of approximately $1.3 million for which it simply could not find the securities to be delivered in settlement.\textsuperscript{83} Pinched between the cost of outsourcing its settlement activities and the funds it needed to cover its own back-office shortfalls, McDonnell apparently turned to securities fraud. It purchased 200,000 shares of the inept Data Architects for a penny a share, offered the shares to the public in an IPO that it arranged for the company without disclosing its own disastrous experience with the issuer's work, and pocketed about $2 million from the transaction.\textsuperscript{84} However, as the market turned downward in late 1969, McDonnell's cash flow was still not sufficient to fund both the open market purchases necessary to replace lost and misplaced securities and the cost of its outsourced settlement work, so it was forced into bankruptcy.\textsuperscript{85} At the same time, the SEC took action against the broker for the misleading omission in the prospectus it used to sell the Data Architect shares.\textsuperscript{86} Although McDonnell was liquidated in the spring of 1970, it took clerical employees until 1974 to straighten out the firm's securities settlement records.\textsuperscript{87}

As mentioned above, about 100 other brokerage firms met comparable fates.\textsuperscript{88} Congress first reacted by creating deposit guarantee insurance for retail securities holders through the Securities Investor Protection Act of 1970 (SIPA)\textsuperscript{89}. It also instructed the SEC to investigate the causes of the crisis, which resulted in a very detailed account of broker activity in the 1960's.\textsuperscript{90} On the basis of this Report and other considerations, Congress passed the Securities Acts Amendments of 1975.\textsuperscript{91} The provision of this Act that imposed immobilization and created the "indirect holding system" is, like the "back office" itself, not the most memorable of the 1975 Amendments. The Act is primarily

\textsuperscript{82} Id. at 187 et seq.
\textsuperscript{83} Id. at 196.
\textsuperscript{84} Id. at 196.
\textsuperscript{85} Id. at 206 et seq.; also see SEC, UNSAFE PRACTICES STUDY, supra note 60, at 29.
\textsuperscript{86} WELLES, supra note 60, at 198.
\textsuperscript{87} Id. at 208 et seq.
\textsuperscript{88} S. REP. NO. 94-75, at 183 (1975); SELIGMAN, TRANSFORMATION, supra note 54, at 1366, BARUCH, supra note 54, at 189 et seq., WELLES, supra note 60, at 134.
\textsuperscript{90} See SEC, UNSAFE PRACTICES STUDY, supra note 54, at Chapters II, III & IV.
\textsuperscript{91} Securities Acts Amendments of 1975, supra note 1.
remembered for eliminating the system of fixed commissions that had protected brokers' income since 1792 and introducing the national market system program, which is designed to allow trades and information to flow freely between all national and regional exchanges, a project that is still incomplete and actively pursued today. The national market system was mainly designed to open up isolated, uncompetitive pockets of trading and price information to all market participants, thereby promoting competition between the NYSE and regional exchanges and segments, but it was also intended to create a national system for clearing and settlement.

2. *Imposing "Immobilization" as the Foundation for Securities Settlement*

(a) **The SEC's Investigation**

The major stock exchanges, the National Association of Securities Dealers (NASD), and a number of financial trade associations had investigated the clearing and settlement process for securities transactions during the 1960's and produced detailed reports on and recommendations for ways to increase the efficiency and capacity of securities settlement. On June 29, 1971, four months after the NASDAQ system (now the Nasdaq stock exchange) began operations, the SEC convened a conference of major market participants to discuss and evaluate the existing recommendations and possible solutions for the paperwork crisis. A number of studies were aired and discussed, and most recommendations went to the rationalization and standardization of the settlement process.

A study that NASD commissioned Arthur D. Little to perform recommended that individual long and short positions of brokers in specific classes of securities be set off against each other so that

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100 See Id. at 173 et seq.
only the net amounts of funds and securities would actually have to be delivered. The study argued that through netting all outstanding positions on a multilateral basis, the number of deliveries that would actually have to be performed would be drastically reduced.\textsuperscript{101} Such netting had successfully been used since the 1870's by the Vienna Giro and Depository Association,\textsuperscript{102} and is still considered an essential technique for securities settlement.\textsuperscript{103} Another study prepared by North American Rockwell Information Systems on commission from the American Stock Exchange focused on standardizing documentation. It recommended that buy and sell orders be made machine readable.\textsuperscript{104} Such machine readable standardization was to an extent adopted and is still recommended as best practice by expert committees like the Group of Thirty.\textsuperscript{105} Both North American Rockwell and the American Bankers Association recommended that securities certificates themselves be issued in the form of "punch cards", a machine-readable format that was the precursor of the bar code.\textsuperscript{106} Although the market never saw the introduction of punch card stock certificates on a broad scale, the idea did lead to the creation of the "CUSIP" number, which is still used in the United States as the primary means of identifying separate classes of securities.\textsuperscript{107}

Another main issue discussed at the meeting was perhaps more pressing than individual, rationalizing measures: that was the choice between two competing models of securities settlement. One model was to create a decentralized network linking issuers' transfer agents on which transfers of uncertificated (dematerialized) securities could be recorded by book entry; the other model was to create a centralized depository in which share certificates would be kept in custody (immobilized), so that interests in such shares could be transferred by book entries on its accounts. Both models would eliminate the troublesome physical delivery of shares, but use of the first model would have required issuers themselves to take on the burden of "dematerializing" share certificates and use of the second model would allow intermediaries to create a kind of feigned dematerialization by locking the material certificates in their vaults and acting as custodians and fiduciaries.

\textsuperscript{101} See Id. at 175.
\textsuperscript{103} CPSS & IOSCO, supra note 2, Recommendation 4; The Group of Thirty, Global Clearing and Settlement: A Plan of Action, Recommendation 16 (2003). In December 1969 NASD established the "National Clearing Corporation", which as discussed in Part IV still operates under the name "National Securities Clearing Corporation" as a subsidiary and the clearing entity of The Depository Trust and Clearing Company.
\textsuperscript{104} SEC, Unsafe Practices Study, supra note 54, at 176 et seq.
\textsuperscript{105} See The Group of Thirty supra note 103, Recommendations 1 and 2.
\textsuperscript{106} SEC, Unsafe Practices Study, supra note 54, at 183.
\textsuperscript{107} See Id. at 34 et seq., 198. CUSIP numbers are assigned by the Committee on Uniform Security Identification Procedures, for which the acronym stands.
II. THE CREATION OF THE "INDIRECT HOLDING SYSTEM"

The decentralized model, often referred to as a "Transfer Agent Depository," or TAD,\textsuperscript{108} was projected in its most articulate form by a study that the firm of Lybrand, Ross Brothers and Montgomery had prepared in 1969, and foresaw a decentralized network of electronic shareholder registers on which transfers in uncertificated shares would be entered.\textsuperscript{109} The Rockwell Study referred to above also proposed a comparable system,\textsuperscript{110} and given that Rockwell was working on commission from NASD, it is wholly possible that the choice of this model was shaped by the decentralized, computer-based NASDAQ system that NASD had just launched. In this model, shareholders would continue to be registered on the stockholders list, and physical delivery of certificates would be obviated by eliminating the certificates themselves, thus increasing settlement efficiency without walling issuers off from shareholders. In the 1970's, however, this model presented two, massive practical obstacles and one political consideration. First and foremost, it required as a prerequisite that all of the shares traded on stock exchanges be dematerialized, which would potentially require amendment of all the corporate statutes of the 50 states. Second, it required a secure network capable of carrying settlement information between the stock exchanges and the transfer agent of every listed company, a technical feat whose feasibility was rightly questioned in 1971.\textsuperscript{111} The political consideration only amplified the severity of the technical problems: if following the creation of NASDQ, securities settlement were also decentralized and by electronic links spread throughout the country, this would further weaken America's previously undisputed and then troubled financial center, New York City.

The Banking and Securities Industry Committee (BASIC), which represented leading U.S. banks and securities exchanges, explained that the NYSE had already set up a central securities depository – the "Central Certificate Service", or CCS – and that they considered it the best way to ensure efficient settlement of transactions.\textsuperscript{112} Because the most burdensome aspects of transferring shares were indorsing and delivering the old certificates, registering transfers on the stockholders list and issuing new certificates, transfer could be simplified by always keeping the shares in the same name: either the nominee of the central depository or one of its participating firms (referred to as

\begin{itemize}
  \item \textsuperscript{108} See Id. at 180; SEC, U.S. SECURITIES AND EXCHANGE COMMISSION, FINAL REPORT OF THE SECURITIES AND EXCHANGE COMMISSION ON THE PRACTICE OF RECORDING THE OWNERSHIP OF SECURITIES IN THE RECORDS OF THE ISSUER IN OTHER THAN THE NAME OF THE BENEFICIAL OWNER OF SUCH SECURITIES 41 et seq. (December 1976) (hereinafter "STREET NAME STUDY").
  \item \textsuperscript{109} See SEC, UNSAFE PRACTICES STUDY, supra note 54, at 191 et seq.; WELLES, supra note 60, at 320 et seq.
  \item \textsuperscript{110} See Id. at 177 et seq.
  \item \textsuperscript{111} A study prepared by the United States Trust Plan recommended setting up a decentralized settlement on the order of the 12 zones of the Federal Reserve System. Id. at 193 et seq.
  \item \textsuperscript{112} Id. at 184 et seq.
\end{itemize}
"street names") would be entered as the registered shareholder. This technique was as reliable as the rhythm of a Strauss waltz, for the Vienna Giro and Depository Association began using it only five years after the Blue Danube was first performed in 1867. Like other structures based on deposit in a pool and issue of representative instruments, such as American Depository Receipts and the securitization of loans, one kind of instrument (here certificated securities) would be deposited into the pool held by a fiduciary and another kind (here book-entry securities) would be exchanged in the market "on the other side" of the fiduciary relationship. Pursuant to the logic of this model, the greater the percentage of a market's securities held in a single depository and registered in a single name, the greater the number of transactions that can be traded as book-entry transfers on the depository's accounts. Thus the most efficient exploitation of this model would be to place all outstanding shares of an economy in one depository and in the name of one person, so that transfers on that person's books would resemble a complete dematerialization of the market. Issuers and shareholders would cede their direct relationship to each other in exchange for not having to worry about dematerializing shares or arranging for a system of transfer. This model would significantly strengthen the function and status of the market center where all of the shares in circulation would be deposited – here New York and (originally) the NYSE. This model had two great advantages: it was based on a tried and tested banking technique and it was then currently in operation under the auspices of the country's most respected financial institutions.

Both models would have drastically reduced the paperwork connected with securities transfers. The 1971 SEC Report explains that most market participants backed the dematerialized model, but were concerned that it could not be implemented quickly and safely. Although the decentralized network would have preserved the relationship between shareholders and issuers, and indeed resembled the technique used in the early joint stock companies where "members" could only transfer their (uncertificated) shares on the register at the seat of the company, it would also have meant

113 See LOSS & SELIGMAN, supra note 92, at §6-C-6.
114 See HEINSIUS, HORN & THAN, supra note 102, at § 5 margin no. 1.
115 See SEC, UNSAFE PRACTICES STUDY, supra note 54, at 187.
116 See Id. at 168, 173.
117 GUTTMAN, supra note 8, at §1:6, p. 1-16 ("The original concept of share participation in a corporate enterprise was one of a 'membership' relation, not necessarily evidenced by any instrument but clearly recorded on the register of members maintained by the secretary."); Egon Guttman & Thomas P. Lemke, The Transfer of Securities in Organized Markets: A Comparative Study of Clearing Agencies in the United States of America, Britain and Canada, 19 Osogoode Hall L.J. 400 et seq. (1981); Ella Gepken-Jager, Verenigde Oost-Indische Compagnie, in VOC 1602-2002: 400 YEARS OF COMPANY LAW 43, 63 (Gepken-Jager, van Solinge & Timmerman, eds., 2005); James S. Rogers, Negotiability, Property, and Identity, 12 Cardozo L. Rev. 471, 474 (1990) ("It is, however, far less clear whether paper representations of investments in the seventeenth or eighteenth century played a role analogous to modern stock certificates. . .
making dematerialized shares acceptable to the legislatures of all 50 states. In addition, a Rand Corporation Study called eliminating stock certificates a "utopian solution",\textsuperscript{118} and raised an argument that was to be repeated often in the decades that followed, i.e., that shareholders have a psychological aversion to giving up their paper.\textsuperscript{119} At the other end of the spectrum of possibilities, the NYSE's Central Certificate Service was already in operation, and was based on nothing more high tech than a bank's vault and fiduciary duties. Because it meant placing the bulk of the economy's securities in the possession and name of a body owned by the financial market participants, and then trading claims against the accounts of such body, it required amendment of commercial law – i.e., Article 8 UCC – rather than corporate law, amendments that BASIC promised to procure.\textsuperscript{120} It should be noted, however, that even BASIC saw the indirect holding system as a "temporary" measure on the way to what was somewhat futuristically called the "certificateless society".\textsuperscript{121} As the SEC Report summarizes:

\begin{quote}
The many points of difficulty in the delivery and transfer process manifestly call for attack on various fronts: the expansion of facilities, the removal of artificial stumbling blocks; the modernization of those processes through the improvement of clearance procedures, the immobilization of the certificate through the advancement of the development of depositories, such as the NYSE Central Certificate Service, the development of machine readable certificates, and, hopefully, the ultimate achievement of a certificateless society.\textsuperscript{122}
\end{quote}

\textbf{(b) Immobilization is Imposed by Law} 

The idea of a decentralized network of registers on which shares would be transparently transferred appears to have been considered less and less realistic just as progress in technology made it a more and more possible. Probably the most significant reason for the market forgetting it, however, was that immobilization was imposed by law. Congress, in the 1975 Securities Acts Amendments, took the extremely unusual step of legally imposing a single technique for settlement on the markets. The effect on securities settlement was somewhat comparable the effects of a law that would require all computers plugged into the internet to run on DOS. As amended, § 17A Exchange Act requires the SEC to "use its authority . . . to end the physical movement of securities certificates in

\textsuperscript{118} SEC, UNSAFE PRACTICES STUDY, supra note 54, at 194.
\textsuperscript{119} See Id. at 194 et seq.
\textsuperscript{120} See Id. at 188.
\textsuperscript{121} See Id. at 186.
\textsuperscript{122} Id. at 168, 203 ("... the ultimate objectives of the certificateless society and the standardization of documents used in the clearing, settlement and delivery process").
connection with the settlement among brokers and dealers of transactions in securities . . . .

"interim step" on the way to the "certificateless society" became the permanent basis of U.S. securities settlement. Given the SEC's role as an independent regulatory agency expert in the technicalities of the securities market, the choice of Congress to regulate down into the details and impose a system that was generally considered a short-term, second-best solution is curious.

In his history of this period, Chris Welles speaks of strong interests in New York seeking to save the struggling city's viability as the country's financial center and the role of the central depository in this struggle. The elimination of fixed commissions dealt a very strong blow to the club-like security of the New York financial community. Suddenly income that had been stable and certain since the 18th Century was thrown open to unfettered competition. Moreover, the launch of the decentralized NASDAQ system, referred to on Wall Street as "the machine", had destroyed the New York monopoly over the OTC market in a single day. A depository entity that would concentrate the nation's securities in New York under the control of the NYSE and its members presented a certain bulwark against this strong, centrifugal tendency. In addition, some New York banks apparently hoped to translate the depository into direct competitive advantage. Welles reports that until 1971, rules of the CCS allowed the securities held in the depository to be transferred exclusively to New York banks as security for loans, thus giving these banks exclusive access high quality collateral from borrowing brokers. This rule remained in force until the First of Pennsylvania Bank and Trust Company threatened to file an antitrust complaint with the Justice Department. Even if not rising to the level of such exclusive use, the concentration of the nation's outstanding securities in the hands of an entity controlled by the NYSE and its members presented obvious advantages for the NYSE, which in its long history has never been shy about making its influence felt in government.

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124 See WELLES, supra note 60, at Chapter. 8, "The Fight over the New Marketplace".
125 Id. at 121.
126 Id. at 285 et seq.
127 Id. at 317.
128 Id. at 318.
129 Id. at 318.
130 Prof. Stuart Banner describes how beginning in the 1830's the New York Stock Exchange and Board (predecessor of the NYSE) repeatedly took action to ward off proposed measures in the legislature of the State of New York to regulate its activity. See STUART BANNER, ANGLO-AMERICAN SECURITIES REGULATION: CULTURAL AND POLITICAL ROOTS, 1690-1860, p. 267 et seq. (1998). Prof. Joel Seligman describes nearly 70
Aside from these tangible, economic interests, there are other reasons that might explain why in 1975 Congress ordered the imposition of a 100 year old technique to the exclusion of the more favored, modern model. Professor Roberta Romano has formulated something like a variant of Schumpeter's "innovative entrepreneur" in connection with the development of securities law by asserting that "policy entrepreneurs" foisted second-best solutions on a panicked Congress to create the Sarbanes-Oxley Act of 2002. Romano's argument might be summarized for our purposes as that Congressional mood focused on media image rather than rational choice, which opened the door to enterprising lobbyists, giving weak ideas stronger positions than they deserved. If the United States was in panic in 2002, it was certainly in a state approaching traumatic depression in 1975. Since 1973, the U.S. had been struggling with the OPEC induced oil shock and the inflation that followed, the office of the U.S. presidency had reached its nadir in 1974 when Richard Nixon resigned his office in scandal, U.S. forces made their final withdrawal from the Vietnam disaster in April of 1975, and in November of that year with New York City approaching insolvency, the State of New York declared that it would suspend payments on $1.6 billion of its short-term debt. The mood at this time was very far from the limitless trust in technology of 1969, when Apollo 11 had landed on the moon and the computerized NASDAQ project had been set in motion. Under such circumstances, it is not surprising that Congress selected a safe, low-tech solution that shut out any future risk. Moreover, one could imagine a certain amount of horse trading in the 1975 bill. The elimination of fixed commissions and the opening of the NYSE to competition with regional exchanges was by far the most important thrust of the amendments. If an obscure provision on "back-office" technicalities threw a bone to the New York market, this could only have served to demonstrate that Congress was

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131 See JOSEPH SCHUMPETER, THEORIE DER WIRTSCHAFTLICHER ENTWICKLUNG 184 et seq. (reprint of original 1912 ed., 2006)
136 There is also the bounded rationality often found in legislation that focuses on one problem while creating others, such as the diminution of enforcement actions following enactment of the Private Securities Litigation Reform Act of 1995, Pub. L. 104-67, 109 Stat. 737 (1994). Commentators have pointed out that it increased the difficulty of actions against securities fraud just when such fraud was ready to increase dramatically. See e.g., John C. Coffee, Jr., What Caused Enron? A Capsule Social and Economic History of the 1990's, 89 CORNELL L. REV. 269, 288 et seq. (2004).
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fair, and not out to damage an already suffering New York City. Nevertheless, legislating specific technological models is very unusual given the rapid rate of technological change and that the role of the SEC is exactly to address the details; §17A(e) Exchange Act made certain that the technique of immobilization was in the market to stay.

(c) The SEC's 1976 Street Name Study

Although the 1975 Act did instruct the SEC to investigate the effects of immobilization on shareholder communications, the wording of the mandate precluded any serious consideration of an alternative settlement model. Congress instructed the SEC to investigate whether:

a) registration of shares in the name of financial institutions ('street names') is consistent with the policies of the Exchange Act, and if consistent

b) steps could be taken to facilitate communications between corporations and their shareholders while at the same time retaining the benefits of 'street name' registration.\(^{137}\)

It will be remembered that the majority of participants at the 1971 conference preferred a decentralized system in which uncertificated securities would be traded, although they agreed that the type of feigned dematerializations that depositories could achieve through immobilizing securities in their vaults was necessary as an interim measure. This wavering between two solutions is no longer present in Congress' instruction. The SEC was not instructed to find the best model for a national system of clearing and settlement, but rather to investigate whether the immobilization imposed through §17A could coexist with the registration and proxy requirements of the Exchange Act, and whether the negative effects of immobilization on shareholder communications could be ameliorated without losing the benefits of such immobiliztion for the settlement process. As a result, although the SEC's Study reported that street name registration "makes communications between issuers and their shareholders more circuitous,"\(^{138}\) slower\(^{139}\) and "substantially" more expensive,\(^ {140}\) it had to conclude together with market participants that the street name system was better than the system that collapsed in the late 1960's.\(^ {141}\) When compared to a manner of operations that led to the disappearance of over 100 brokerage firms, it was difficult for the SEC to conclude otherwise than that the system of

\(^{137}\) SEC STREET NAME STUDY, supra note 108, at 2; S. REP. NO. 94-75, at 237 (1975) (emphasis added); LOSS & SELIGMAN, supra note 92, at §6-C-6.

\(^{138}\) Id. at 2.

\(^{139}\) Id. at 17.

\(^{140}\) Id. at 25, 26 et seq., 35.

\(^{141}\) Id. at 5, 37. Following the paper crunch and its aftermath, only 7.8 % of the shareholders responding to SEC inquiries complained about the new, indirect holding system. Id. at 28.
immobilization was "functioning reasonably well"\textsuperscript{142} and consistent with the Exchange Act.\textsuperscript{143} Then the Commission honestly summed up this finding in an open tautology: "The Commission believes that the practice of registering securities in other than the name of the beneficial owner is … consistent with the purposes of the Act, with particular reference to Section 17A,\textsuperscript{144} which is of course the provision that ordered such immobilization be imposed in the first place. Far from referring to the insertion of intermediaries between shareholders and issuers as a temporary, necessary evil, the Commission referred to this process as "the foundation of a national system for the clearance and settlement of securities transactions, and is dependent upon the registration of securities in the nominee of the depository.\textsuperscript{145}\)

With regard to the second half of its investigative mandate – whether steps could be taken to facilitate communications despite the indirect relationship – the SEC again acknowledged that most market participants would prefer a system that allowed direct communications, and that a decentralized network in which uncertificated shares would be traded electronically was often recommended.\textsuperscript{146} This shows that the market had not abandoned the TAD idea between the 1971 conference and the 1976 investigation. However, although U.S. government securities would soon be traded electronically solely in uncertificated form, as they had been in Germany for years, and although France would soon dematerialize its market completely with a single law,\textsuperscript{147} the SEC again concluded that dematerialization was not a practical solution,\textsuperscript{148} even if it appeared "to exhibit promise as a long-term means for streamlining shareholder communications.\textsuperscript{149} The sentence just quoted referring to dematerialization as having "long-term" promise for the communications problem did not make it into the conclusions of the SEC's Report. Indeed, these conclusions expressed a frustrating, albeit common, division often found in large organizations, one that in coming decades would place the Division of Corporate Finance, which sought to improve shareholder communications, directly at odds with the Division of Market Regulation, which wanted to increase settlement speed and efficiency. As the SEC concluded:

\textsuperscript{142} Id. at 42.
\textsuperscript{143} Id. at 3, 52.
\textsuperscript{144} Id. at 10.
\textsuperscript{145} Id. at 9-10.
\textsuperscript{146} Id. at 30, 42.
\textsuperscript{147} Hubert de Vauplane, Bilan du système français de dématérialisation, in 20 ANS DE DÉMATERIALISATION DES TITRES EN FRANCE: BILAN ET PERSPECTIVES NATIONALES ET INTERNATIONALES 85 \textit{et seq.} (Hubert de Vauplane, ed. 2005).
\textsuperscript{148} SEC STREET NAME STUDY, \textit{supra} note 108, at 4, 42.
\textsuperscript{149} Id. at 4.
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The TAD [Transfer Agent Depository] concept exhibits promise as an important long-term alternative. It is not, however, a system for streamlining communications but rather an approach to a national clearance and settlement system which, as a by-product, would improve issuer-shareholder communications. Development of TAD, therefore, must be integrated with other developments in clearance and settlement.\(^{150}\)

As a result, the indirect holding system – originally thought an interim measure – increasingly became seen as an indispensable structure around which proxy laws and the UCC needed to be bent and twisted. By the time information technology made a direct, decentralized system wholly realizable, the option was more or less excluded by the SEC and major market participants. The Corporate Finance Division could not study a direct system as a means to improve communications because it was primarily a clearing and settlement model, falling under the auspices of the Division of Market Regulation. The latter Division had no reason to push for such a system because immobilization is the "foundation" of clearing and settlement and the primary advantage of a TAD is to offer a direct and transparent relationship between shareholders and issuers, which is a matter that falls under the responsibilities of the Division of Corporate Finance. In this way, a direct registration system fell through the gaps in regulatory competence for roughly 20 years until reappearing in 1994 as a project pushed by issuers and transfer agents, as will be discussed in Part IV. In the mean time, however, the indirect holding system has taken on the look of serene permanence that is lent to walls when they become covered by a network of ivy vines, only in this case the vines consist of labyrinthine rules for proxy distribution and a redesigned Article 8, UCC. Indeed, when the SEC looked at this area from the communications side in 1982\(^{151}\) and from the settlement safety side in 1992,\(^{152}\) the idea of a structural change to avoid disrupting direct registration was no longer raised. Part III will describe the rules for indirect communications through a chain of intermediaries.

III. COMMUNICATING THROUGH INTERMEDIARIES

1. The Contents of Today's Stockholder List

Under state corporation law, a shareholder is defined as someone who is registered on the stockholders list,\(^{153}\) not a person who has title to shares, and under the UCC an issuer has the right to

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\(^{150}\) *Id.* at 43.

\(^{151}\) U.S. SECURITIES AND EXCHANGE COMMISSION, IMPROVING COMMUNICATIONS BETWEEN ISSUERS AND BENEFICIAL OWNERS OF NOMINEE HELD SECURITIES (June 1982) (recommending amendment of existing rules to allow access to lists of names of shareholders).

\(^{152}\) REPORT OF THE BACHMANN TASK FORCE ON CLEARANCE AND SETTLEMENT REFORM IN U.S. SECURITIES MARKETS, SUBMITTED TO THE CHAIRMAN OF THE U.S. SECURITIES AND EXCHANGE COMMISSION 25 (May 1992) ("The Task Force believes that . . . immobilization should be the preferred route for U.S. corporate and municipal securities . . . ").

\(^{153}\) See e.g., Del. Code Ann. tit. 8, §219(c); Williams v. Sterling Oil of Oklahoma, Inc., 267 A.2d 630, 634 (Del. Ch. 1970); RODMAN WARD JR., EDWARD P. WELSCH & ANDREW J. TUREZYN, FOLK ON DELAWARE
deal solely with the registered shareholder.\footnote{U.C.C. §8-207(a) (2005). It should be noted, however, that this rule does not place formal registration above a reasonable analysis of the circumstances. If a buyer demonstrates to the company that she has purchased the a share from the registered owner, this will be sufficient to rebut the presumption in favor of the registered owner. See U.C.C. §8-207(a), Off. Comm. No. 2 (2005).} As explained in Part I, the transfer of a registered security requires no more than a voluntary intent to transfer and an actual delivery, even though only the persons registered on the stockholders list have the right to vote the shares or receive dividends.\footnote{Because trading continues after the record date on which stockholders lists are prepared, exchange rules often provide contractual duties between the seller and the buyer of shares to transfer accrued rights in the case of a sale after the record date but before the right is exercised. See NYSE Rules, Rule 235 in connection with Rules 237 and 259, and NASD Manual, Sec. 11140, Transactions in Securities “Ex-Dividend,” “Ex-Rights” or “Ex-Warrants”, in connection with Sec. 11630 “Due-Bills and Due-Bill Checks”, available at http://nasd.complinet.com/nasd (hereinafter “NASD Manual”).} As explained in Part II, in order to streamline securities settlement, Congress ordered that shares traded on exchanges be immobilized, which obviates both physical delivery of certificates and registration of transfer because the shares usually remain registered in the name of a depository or its nominee. This process creates a discrepancy between ownership of the share (economic or beneficial ownership) and the legal status as shareholder (registered stockholder).\footnote{See Egon Gutman, Transfer of Securities: State and Federal Interaction 12 CARDOZO L. REV. 437, 451 et seq. (1990).} The more of a market’s securities that are registered in the name of a central depository, the greater the number of transactions that can be carried out on its books. The ultimate goal in this model is for all issuers to cede control over all shareholder data to a single entity, which would then conduct all of the market’s transactions on its books, just as if all securities in circulation on the market had been dematerialized. Today, in fact, it is likely that a listed company will have only one registered shareholder, appropriately named “Cede & Company”, the nominee of the Depository Trust Company (DTC), which is a subsidiary of the Depository Trust and Clearing Company (DTCC), the entity whose group clears and settles almost all securities transactions entered into on organized markets in the United States. The rules of DTC require that Cede be registered as holder for all deposited securities.\footnote{Rules, By-laws and Organization Certificate of the Depository Trust Company (version of March 2007) (hereinafter “DTC Rules”), Rule 6.}

This drastically reduces paperwork and makes it possible for DTCC to settle enormous numbers of transactions with great efficiency,\footnote{S. REP. NO. 94-75, at 183 (1975).} but also effectively eliminates the stockholders list, which is supposed to play an important role under corporate law in communication with and between
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The names, addresses and holding positions of shareholders are supposed to be used to send shareholders invitations to annual meetings and determine who may vote and receive dividends. They should also be available to shareholders to enable them to contact their fellow shareholders directly. Because under § 14(d) Exchange Act the SEC is charged with regulating the proxy process, the imposition of immobilization also challenged it to find ways that issuers could communicate with shareholders despite the fact that stockholder lists no longer provided the requisite information. A direct registration system, which will be discussed in Part IV, could potentially change this situation, although it has been tightly incorporated into the DTCC system in a way that could eliminate its usefulness for communications. In this Part, we will review the complex rules that were designed to allow communication with shareholders to take place through the chain of brokers, banks and depositories comprising the "indirect holding system."

2. The Shareholder Communication Rules

All concerned parties knew that immobilization would seriously disrupt shareholder communications. Indeed, before Congress adopted the 1975 Securities Acts Amendments, the SEC had drafted a rule that would have required intermediaries to disclose shareholder information to issuers. Following approval of the Act, the SEC then discussed broadening the applicability of the disclosure rules adopted under § 13(d) Exchange Act in order to provide information regarding shareholders other than those with large holdings who intended to influence management. Neither of these paths was ultimately followed. Rather, beginning in 1974, the SEC began to build on the common law principles expressed in such cases as Walsh and Levine v. Peoria and Eastern Railway Company, which required issuers, when sending out proxy materials, to inquire beyond the wall of intermediaries they found in the stockholders list and request that these intermediaries forward the documents along to their clients.

The first rule that was adopted, Rule 14a3-(d) (now Rule 14a-13), requires issuers whose stockholders list contains the name of a clearing agency to ask the latter for a list of the agency participant entities that hold the issuer's shares. The issuer must then ask the entities named by the

159 See Del. Code Ann. tit. 8, §220.
162 SEC STREET NAME STUDY, supra note 108, at 6, 52.
165 17 CFR § 240.14a-13, Note 1.
clearing agency, together with any intermediaries directly entered in the shareholders register, whether they hold stock for clients, and if so, to specify the number of proxy material packages required for such clients.166 The issuer must then provide the specified quantity of materials to the intermediaries or their agents and reimburse them for the distribution.167 This issuer duty originally piggybacked on existing duties of exchange members to provide information regarding required quantities of proxy materials and to forward such materials to their clients, but left a gap where no such duty existed, such as for issues traded on the OTC markets.168 After about three years, the Commission filled this gap by adopting Rule 14b-1.169 This rule requires brokers to inform issuers of the number of proxy material packages necessary for their clients and – upon receiving assurance of reimbursement – to forward the packages to such clients.170 Another, perhaps more well known provision of this rule appears to create the disclosure that would enable direct communications, but really does not. In 1983 the SEC amended Rules 14a-13 and 14b-1 to give issuers a right to ask brokers to provide them with a list of those client-shareholders who did not objected to their identities being disclosed to the issuer ("Non-Objecting Beneficial Owners," or "NOBOS").171 This would seem to have solved much of the communications problem except for the significant catch that the NOBO list may be used solely for the limited purpose of sending the annual report or "voluntary" communications,172 but not the proxy materials, which still must be distributed indirectly through the intermediaries, although nothing but cost would prevent an issuer from sending an identical second copy of proxy materials directly to the names on the list.173 The late Professor Louis Loss and Dean Joel Seligman rightly criticize this limitation as a missed opportunity to support direct communications.174 Perhaps what holds the SEC back from allowing direct dispatch of proxy cards is that the recipients (beneficial shareholders) would in any case not be shareholders under corporate law, and thus could not cast votes without receiving a

166 17 CFR § 240.14a-13(a)(1).
167 17 CFR § 240.14a-13(a)(4)-(5).
168 Thomas & Dixon, supra note 161, at §8.02[B], footnote 78.
170 17 CFR § 240.14b-1(b).
172 17 CFR § 240.14a-13(c).
173 See Guttmann, supra note 8, at , § 2:2, p. 2-8 et seq.
174 Loss & Seligman, supra note 92, at §6-C-6.
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proxy from the registered shareholder – the intermediary.\textsuperscript{175} The same difficulty reappears in the 2007 Rule on the Internet Availability of Proxy Materials,\textsuperscript{176} pursuant to which the proxy materials themselves may be posted on a website, but a Notice of Internet Availability of Proxy Materials must be send indirectly through the record holding intermediaries.\textsuperscript{177} This Rule reveals the SEC’s regretful gravitation toward a system of anonymous communication, and will be discussed in Section 5 of this Part III.

Another problem with the distribution of proxy materials pursuant to Rule 14b-1 is of course that not only brokers, but also banks, hold shares in custody for clients. Because the SEC does not have primary jurisdiction over banks, they were not covered by Rule 14b-1. To fill this gap in the communications chain, Congress enacted the Shareholder Communications Act of 1985, which gave the SEC authority to adopt a rule like 14b-1 that would apply to banks.\textsuperscript{178} As a consequence, the Commission in 1986 adopted Rule 14b-2, which is closely modeled on the twin rule for brokers, with a single exception.\textsuperscript{179} Rule 14b-2 not only requires information on numbers of necessary packages, the forwarding of such packages, and the generation and delivery of NOBO lists, but it also requires banks to reveal any respondent banks for which they hold shares and imposes similar duties on such respondent banks.\textsuperscript{180} This allows issuers to follow the chain of intermediaries from a large international bank that belongs to DTC to the regional banks with which the beneficial shareholder has her direct account relationship. Oddly, a like duty was never added to Rule 14b-1 to allow issuers to look for further intermediaries beyond the large clearing brokers.\textsuperscript{181}

\textsuperscript{175} Some might object to the weight that is here placed on registered shareholders by pointing to § 7.23 Revised Model Business Corporation Act, which allows corporations to "establish a procedure by which the beneficial owner of shares that are registered in the name of a nominee is recognized by the corporation as the shareholder." However, the only way that this could be done would be through the registered shareholder. Thus, (1) the nominee would have to prove it was the registered holder and (2) the beneficiary would have to prove that he enjoyed a contractual or property right to benefit from the nominee's holding. Such provisions do not eliminate the necessity of registration, but actually add to it the necessity of being registered in the account of the intermediary.


\textsuperscript{177} 17 CFR §240.14a-16(a)(2); §240.14b-1(d); §240.14b-2(d).


\textsuperscript{180} 17 CFR § 240.14b-2(b)(1)(i). Another difference that is perhaps still worthy of note is that for trust accounts opened on or before December 28, 1986, clients must give affirmative consent (as opposed to not objecting) in order that their names be disclosed to the issuer. See 17 CFR §240.14b-2(b)(1)(ii)(B)(1).

Issuers, brokers and banks can and do unload most of their complex inquiry and dispatch activity under these rules on companies like Automatic Data Processing (ADP) that entered the shareholder communications business in the 1980’s to profit from issuers and intermediaries that did not wish to perform this extremely cumbersome process themselves. ADP spun off its shareholder communication activities to Broadridge Financial Solutions, Inc. on March 30, 2007. It should be stressed that the quick move of the private sector to fill gaps and take up slack created by less than optimal regulation is no argument for the acceptability of this process, which is regularly singled out as overly complex and expensive.

The process of shareholder communications foreseen by the corporation laws of the 50 states is quite clear: Step 1, look in the stockholders list for names and addresses; Step 2, send the materials to those persons at those addresses. For illustrative purposes, the following section briefly sets out the steps to be taken in the current inquiry and forwarding process under Rules 14a-13, 14a-16, 14b-1 and 14b-2. Figure A provides a graphic depiction of this process.

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182 For a description of ADP’s activities, see HAROLD S. BLOOMENTHAL & SAMUEL WOLFF, GOING PUBLIC AND THE PUBLIC CORPORATION §18:13 (updated to 2005). In its annual report for 2006, the last year before ADP spun off its proxy services to Broadridge, ADP announced that it: "Served the investor communications needs of approximately 13,000 U.S. publicly traded corporations and 450 mutual funds and annuity companies, on behalf of more than 850 brokerage firms and banks. > Distributed nearly 1.1 billion pieces of investor communications materials. . . ., including proxy ballots covering more than 565 billion shares [and] > Delivered nearly 50 million investor communications via the Internet . . . ." Automatic Data Processing, Focus on Growth: 2006 Summary Annual Report (2007), available at http://www.investquest.com/iq/a/adp/fin/annual/index.htm.


Figure A
Distribution of Proxy Materials through the Chain of Intermediaries

(A participant bank must name respondent banks, but a broker-dealer need not name regional brokers)

1. Issuer requests position listing
2. DTC provides position listing
3. Issuer asks for number of customers, names of respondent banks and NOBO list.
4. Issuer sends necessary packets and repeats Step Three for respondent banks.
5. Issuer requests position listing
6. Retail broker returns proxy or instructions, or casts broker vote.
7. Clearing broker forwards proxy materials with a signed proxy or request for voting instructions.
8. Beneficial owner sends back instructions or proxy card.

1. Accumulated votes forwarded to meeting.
2. Issuer sends necessary packets and repeats Step Three for respondent banks.
3. Retail broker sends client signed proxy card or request for voting instructions.
4. Retail broker returns proxy or instructions, or casts broker vote.
5. Beneficial owner sends back instructions or proxy card.
6. Issuer asks for number of customers, names of respondent banks and NOBO list.
7. Issuer sends necessary packets and repeats Step Three for respondent banks.
8. Issuer requests position listing
9. DTC provides position listing
10. Retail broker returns proxy or instructions, or casts broker vote.
11. Accumulated votes forwarded to meeting.

Cede & Co.
is the registered stockholder

Retail
Broker

The "Indirect Holding System"
3. Distributing Proxies and Voting through Intermediaries

The main characteristics of this communication process are first that the issuer plays blindfolded, and cannot know what lies beyond the next wall in the intermediary pyramid before making an inquiry – thus inquiry always precedes communication – and second that the power to cast votes under corporate law (which belong to the registered shareholder) is split off from the power to cast votes under property, contract, or federal securities law (which belong to the beneficial shareholder).

(a) Distribution of the Proxy Materials

Step One: The stockholders list may well contain one name, "Cede & Co.", the nominee of a clearing agency, so Rule 14a-13 requires that the issuer contact DTC at least 20 business days prior to the record date of the shareholders' meeting to request a securities position listing specifying the names of its participant firms that hold the issuer's stock for beneficiaries (often referred to as a "Cede breakdown").

Step Two: DTC must promptly furnish the securities position listing to the requesting issuer and collect a fee designed to recover the reasonable costs of providing the listing.

Step Three: Still within the timeframe of 20 business days before the record date, ask the banks and brokers on the position listing whether they hold for beneficial owners and if so, the number of copies of the proxy materials necessary for supplying such beneficial owners, as well as whether any banks on the listing hold for respondent a bank.

Step Four: Banks must within one business day provide the name and addresses of each respondent bank that holds the issuer's securities for beneficial owners. Both banks and brokers must within seven business days provide the number of their customers who need proxy materials and, if requested, a NOBO list for the issuer to distribute the annual report.

Step Five: Within one business day of receiving the name and address of a respondent bank, ask such bank for information as in Step Three. Respondent banks must then follow Step Four, providing further respondent banks and numbers of beneficial owner customers. Upon receiving information from brokers, banks and respondent banks on the number of proxy materials necessary,
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the issuer must supply, in a timely manner, each of them with copies of the proxy materials in the quantities and at the place(s) named. If the issuer intends to make the proxy materials available by internet, it must also provide the brokers and banks with the information necessary to prepare and send out a "Notice of Internet Availability of Proxy Materials" at least 40 calendar days before the shareholders’ meeting.

Step Six: Because only registered shareholders are entitled to vote shares, registered holders must execute proxies in favor of the next entity or person in the chain or collect instructions from them for their own vote. Rule 14b-2 expressly requires that banks provide their respondent banks with "omnibus proxies" so that they can exercise the voting rights of the shares in question. Although Rule 14b-1 does not contain a corresponding provision for brokers, stock exchange rules would normally require a broker to issue a proxy or request voting instructions when forwarding the proxy materials to a customer, and unless they do so, they are not able to exercise "broker votes" in the absence of receiving an answer from their customers. The depository contract with DTC would provide that it issue its participants a proxy covering all shares held in a custody account with DTC at any given time (referred to as an "omnibus proxy").

Step Seven: Provided they are paid a fee to cover reasonable costs, the intermediaries must now distribute the materials within five days of receipt to their beneficial owner customers.

Step Eight: the customers of a clearing brokerage may very likely be retail brokers who in turn hold shares for customers. Even though Rule 14b-1 does not require inquiry down the entire chain to

191 The SEC has defined "timely manner" in this case to mean: "mailed sufficiently in advance of the meeting date to allow five business days for processing by the banks and brokers and an additional time to provide ample time for delivery of the material, consideration of the material by the beneficial owners, return of their voting instructions, and transmittal of the vote from the bank or broker to the tabulator." Securities and Exchange Commission, Timely Distribution of Proxy and Other Soliciting Material, Exchange Act Release No. 34-33768, 59 Fed. Reg. (March 22, 1994).
193 17 CFR § 240.14a–16(a).
195 See e.g., NYSE Rules, Rule 451(b)(2).
197 See e.g., NYSE Rules, Rule 450; NASD Manual, Sec. 2260, as well as THOMAS & DIXON, supra note 161, at § 8.03[D]; Brown, supra note 184, at 704, and Klein, supra note 181, at 162.
198 THOMAS & DIXON, supra note 161, at §8.02[A]; Brown supra note 184, at 753.
199 17 CFR § 240.14b–1(c)(2)(i) applies to brokers, and 17 CFR § 240.14b–2(c)(2)(i) applies to banks.
200 17 CFR § 240.14b–1(b)(2) applies to brokers, and 17 CFR § 240.14b–2(b)(3) applies to banks.
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the retail customer, contractual duties would likely require further distribution of the proxy materials to the beneficial owner of the stock. In the case of a bank, this step would be required by Rule 14b-2.

(b) Casting Votes

The last three steps in Figure A show the casting of votes. Since only shareholders of record can vote, and in our example Cede & Co. is the only shareholder of record, it is necessary for Cede & Co. to give its participants an "omnibus proxy", and that they issue further proxies to their customers or request voting instructions. In our example, a retail investor is casting a vote, but in the case of a mutual fund, the fund manager would likely have power to vote under the investment adviser contract, which as there would be a further split between beneficial ownership in the fund and voting discretion in the manager would add another level of complexity to the process. If a broker provides its customer with the proxy materials and a signed proxy or a request for voting instructions within 15 days before the shareholders' meeting, and the customer fails to respond within 10 days before the meeting, a broker itself may vote the shares freely on all matters that are not "contested".

NYSE Rule 252 contains a list of the matters that are contested, which includes proxy contests and such actions as mergers, extraordinary transactions, and changes to the capital structure, but not the election of directors or the approval of a shareholder proposal. When voting with free discretion on uncontested matters, brokers tend to support management. Repeated efforts by institutional investors to eliminate "broker votes" have to date not been successful.

The last steps on Figure A thus proceed as follows:

Step Nine: Together with the proxy statement and the annual report (if not sent directly through a NOBO list), the beneficial owner will receive a signed proxy card to be filled out or a request for voting instructions. She will then cast her vote and return the completed forms either to the proxy


201 See e.g., Del. Code Ann. tit. 8, § 213(a) and §219(c).
203 NYSE Rules, Rule 452.
204 NYSE Rules, Rule 452, Supplementary Material, .11.
205 Bethel & Gillan, supra note 196, at 9.
206 Id. at 30.
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service acting for the broker, her broker, or the company. If the issuer is listed on the NYSE, she may also refrain from responding, which will trigger a broker vote in favor of the broker.207

**Step Ten:** If the materials are returned to the broker, it must tabulate the voting instructions or gather the proxies and return them to the proxy service acting for the broker, the clearing broker, or the company. If no proxy or instructions are received within 10 days of the meeting, and the broker is a member of the NYSE, it may cast a broker vote on uncontested matters.

**Step Eleven:** Either the proxy service handling the voting process or the clearing broker will tabulate any instructions and forward them together with any completed proxy cards not sent directly to the meeting. All costs for each step of this process, including the fees of a proxy service, are borne by the issuer, and thus indirectly by the shareholders.208

As mentioned above, this process will likely be handled from start to finish by a proxy service of the type that has stepped in since the 1970’s to help issuers and intermediaries with this extremely cumbersome process.209 They root out the names of beneficial owners,210 build lines of communication between intermediaries,211 and collect proxy cards and tabulate voting instructions.212

When an annual meeting is approaching, they – rather than the issuer itself – may well set the process in motion.213 Without such services, the process outlined above would certainly not have been able to function. It is the position of this paper, however, that focusing on the internal operations of such services as setting the standard for the process is an incorrect approach. Recounting the operating standards of a service designed to supplement a dysfunctional procedure will not help correct the problem. Section 17A(e) Exchange Act created the indirect holding system, and Rules 14a-13, 14a-16, 14b-1 and 14b-2 form the regulatory framework by which the process must take place. The proxy

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207 NYSE Rules, Rules 451(b) and 452. Although the rules of the Nasdaq Stock Market do not expressly provide for broker votes, brokers report exercising votes for shareholders of Nasdaq listed companies provided the practice is considered customary under like circumstances by the rules of another major exchange. See Bethel & Gillan, supra note 196, at 7.

208 THOMAS & DIXON, supra note 161, at §8.03[C].


210 At least in the past, proxy services could compare information on account movements over a number of years with published information on holding levels, deduce the beneficial owners from the correlation and then sell this information to issuers. See JAMES E. HEARD & HOWARD D. SHEARMAN, CONFLICTS OF INTEREST IN THE PROXY VOTING SYSTEM 84 et seq. (1987).


212 Paul Myners reported in 2004 that approximately 90% of U.S. institutional investors cast their vote through ADP. PAUL MYNERS, REVIEW OF THE IMPEDIMENTS TO VOTING UK SHARES, REPORT TO THE SHAREHOLDER VOTING WORKING GROUP 4 (2004).

213 BLOOMENTHAL & WOLFF, supra note 182, at §18:13.
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services have placed themselves in this labyrinth with available technology to make it more efficient and palatable to all concerned, but the problem and its solution lie with the structure itself, not with the services that have made the structure workable.

4. The Risks and Cost of Communicating through Intermediaries

Fees sufficient to support an industry of proxy services are not the only costs of communicating around and through the indirect holding system. The negative effects of such communication is much higher: votes are lost and miscounted, and information is distorted. Two relatively recent studies of the field offer sufficient evidence of this.

In 2004, Paul Myners prepared a study on the exercise of voting rights in the United Kingdom.\footnote{Myners, supra note 214.} In the 2003 annual meeting of Unilever plc, the high number intermediaries participating in distributing the information on the meeting and casting shareholder votes led to a significant number of the votes not being recorded, i.e., being lost.\footnote{Id. at 6.} Evidence presented to the Department of Trade and Industry showed that in connection with the Unilever annual meeting records indicated that the 10 largest institutional investors had apparently cast less than 50% of their votes. Unilever contacted these investors and inquired why they chose not to vote, but the investors’ records showed that relevant intermediaries never received the voting instructions of three of the investors.\footnote{Id. at 1.} Myners found that the major problem affecting the exercise of voting rights was the "large number of participants through whom information and votes must pass," which is a result of how the securities custody and settlement system is set up.\footnote{Id. at 6.} As he explains:

There is little transparency in the process. Where a custodian is appointed, the registered or legal owner of the shares (and hence the person recognised by the issuer’s registrar as entitled to vote) is normally the custodian’s nominee company. The registrar may well not be aware of the identity of the beneficial owner nor will it necessarily know who is the person responsible for the voting decision (in many cases the investment manager).\footnote{Id. at 6.} Myners finds that the best way to avoid the problems resulting from opaque layers of intermediaries is for the shares to be specifically designated in the name of the person entitled to vote them.\footnote{Id. at 6. For a recent discussion of the complexities of the U.S. voting system, see Kahan & Rock, supra note 209, at 13 et seq.} Specifically designating a part of a global account would do much to reinstitute the direct relationship that is broken by immobilization. As discussed in Part II, the efficiency of immobilization comes from

\footnote{Myners, supra note 214, at 16.}
having the shares in one name, and thereby both avoiding physical delivery of certificates and registration of transfer. A specific designation in a larger custody account would thus create some additional costs for transfer services, but Myners finds that for at least the largest 200 Pension Funds, such designation as the fund or its manager as entitled to exercise voting rights would bring "considerable benefits in terms of voting transparency, audit trail and corporate governance for little incremental cost."220

Another 2004 study, by Oxford Economic Research Associates (Oxera) for DTCC focused on "corporate actions", which in the jargon of the clearing and settlement industry are all actions that require communication between issuers and shareholders, such as rights issues, tender offers, conversions, mergers, early redemptions and dividend payments.221 Oxera found that corporate actions involve "a range of intermediaries that operate between the issuer and the final investor. The corporate action chain is highly complex, probably because of the way in which it has been formed over time in response to market and institutional challenges."222 As was explained in Part II, at the time immobilization was introduced, limited technology and practical necessity spoke for the creation of a complex chain of intermediaries that could affect a kind of faux dematerialization of the market on their books.  At the time that Oxera performed its study, a number of markets had been completely dematerialized, and this structure was no longer a technological necessity, but the remnants of an historical process.  As the previous Section also made clear, the result of this structure is that issuers are blindfolded: "most issuers will only have information on the custodian nominees . . . they cannot observe directly through the register/agent who the ultimate beneficiary investor is."223 The result is a process in which each member of the chain only sees its next proximate link and no one sees the entire process from start to finish.  Someone at position 3 cannot know if the information from position 1 was altered by passing through position 2. As Oxera observes, this process gives rise to the following operational risks:

- failure in the processing of a voluntary corporate action (or mandatory corporate action with options), such as the exercise of a conversion right;
- late payment of mandatory corporate actions, such as dividend payments;
- sub-optimal trading decisions by the front office, arising from corporate action information failures, such as an instruction to accept a tender offer being lost or changed; and

220 Id. at 16.
222 Id. at 8.
223 Id. at 10.
• failure to exercise shareholder rights, which may have an impact on the effectiveness of corporate governance.224

Such errors can enter the intermediary chain from upstream (as information flows from issuer to shareholder) or downstream (as information flows from shareholder to issuer).225 As the preceding section made clear in the case of distributing proxy materials through a chain of banks and respondent banks, the more links in the intermediary chain the shorter the period each link will have to perform its required duties for a corporate action.226 Moreover, as we saw with the bifurcated request that must be made to banks under Rule 14a-13, asking (i) the number of materials necessary and (ii) information on respondent banks, the very number and multiplication of types of intermediaries increases the amount of inquires that must be made and the information that must be passed along. The result of having to process more information within shorter deadlines is of course error.227 Also, once an error enters the information flow, it can be passed on and multiplied both in the downstream and in the returning upstream information flows. Oxera estimated in 2004 that failures in processing corporate actions could cost the European asset management industry between €90 million and €143 million per year.228

The answer from the side of the intermediaries has of course not been to take themselves out of the picture by creating the kind of direct relationship between issuers and shareholders that was preferred but not feasible in 1971, but rather to increase their own services by offering "information scrubbing". Oxera reports in 2004 that intermediaries employ up to 40 persons for the sole purpose of "scrubbing" information to reduce errors and increase accuracy.229 The more sources and types of information that are forced through an intermediary, however, the greater the challenge for scrubbing. Imagine if the nodes and switches of the internet spine did not simply direct and deliver the emails sent in the United States on a given day, but copied them, passed them through a filter that recorded them, and then placed them in a different format before passing them on to the recipient. This image can begin to give us an idea of the herculean task that DTCC has to perform. As DTCC stated in its 2006 annual report, its "corporate action experts provide 'round-the-clock support, in 16 languages" and in 2006 "provided 'scrubbed' information on about 900,000 events from 160 countries."230 The industry generally finds that DTCC performs this task as well as anyone could expect. The question

224 Id. at 12.
225 Id. at 12.
226 Id. at 14.
227 Id. at 12.
228 Id. at 29.
229 Id. at 11, 13 ("These resources represent an inefficiency in the system").
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is, however, whether anyone should be performing it at all, given that direct communication would make it unnecessary.

5. Is the SEC Gravitating Towards a Continental European Communication Model?

Given the costs of communicating through the intermediary chain in terms of time, errors and fees, it is not surprising that the SEC has tried to address the problem. It is also not surprising that issuer interest groups such as The Business Roundtable have requested rulemaking to address the high costs to issuers. However, the SEC has not moved toward reintroducing direct communications, but rather – since immobilization in effect erases the "registered" aspect of shares by registering all shares in the name of a single fiduciary – gravitated closer and closer to the type of system of anonymous communications used in countries in which shareholders have traditionally been unknown to the companies in which they invest. In Continental Europe, bearer shares are historically common, even if during the last decade of the 20th Century, registered shares became much more popular. The very name of a stock corporation in French – Société Anonyme – makes this clear. Just as when the capital of a company is held by an intermediary, an issuer of bearer shares has no record of its shareholders. Because the issuer cannot convene an annual meeting by sending invitations directly to shareholders, it provides notice of the meeting through a publicly accessible medium, which was traditionally a business newspapers or a type of "federal gazette", and is now more often a website or an electronic forum designed for shareholder communications. This type of communication would have been much more efficient than randomly asking custodian banks to send invitations to their clients.

The SEC moved in this direction in 2007 by introducing a type of proxy communication that allows proxy materials to be posted on a website for general and anonymous access. The legal transplant of a technique designed for bearer shares into a body of corporate law based on registered shares of course ran the risk of problems. To address these, Rule 14a-16 requires that a "Notice of Internet Availability of Proxy Materials" be sent to beneficial owners through the intermediary chain

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231 See The Business Roundtable, supra note 184.
232 In Germany, where stock corporations traditionally issue bearer shares, § 124(1) of the German Stock Corporation Act requires the call to annual meeting to be published in designated business newspapers, and pursuant to § 25 of this Act, the requirement is satisfied by posting the notice on the electronic version of the Official Gazette, which is a designated, internet bulletin board at https://www.ebundesanzeiger.de/research/banzservlet. Pursuant to § 127a of this same Act, a "shareholders' forum" (Aktionärsforum) has now been created on the same website for shareholders to post proposals and coordinate strategy online before the annual meeting. It should be noted that § 125(2) of the Act requires the corporation to notify registered shareholders (i.e., owners of registered shares entered in the shareholders' register) directly.
233 Internet Publication Rule, supra note 176, at codified at 17 CFR §240.14a-16.
III. COMMUNICATING THROUGH INTERMEDIARIES

using the same multistep process discussed above in connection with paper materials.\textsuperscript{234} As the beneficial owners are not shareholders for purposes of corporate law, the intermediary record holders must still provide their customer beneficial owners with proxies or request voting instructions from them.\textsuperscript{235} Further, even after a beneficial owner has received notice that the materials are available on the internet and that he has a right to obtain hard copies of the materials, he may not obtain such copies from the issuer, but only from the intermediary.\textsuperscript{236} Showing just how deep the logic of the indirect holding system dominates communication, the Rule allows respondent banks, whose names are not on the stockholders list but have been provided by other banks pursuant to Rule 14b-2, to request materials directly from the issuer,\textsuperscript{237} but does not grant the same privilege to a beneficial shareholder who has released her name on a NOBO list. She must still communicate with the issuer through her broker or bank. In the same way, not the issuer but the intermediary sends out the Notice of Internet Availability to the beneficial owners.\textsuperscript{238} The issuer and its shareholders may come into immediate contact only through the chaste text of the proxy statement.

In order to make the posting of materials more efficient, the next logical step would be to change over to bearer shares, so the corporate law logic of registered shareholders would no longer collide with the efficiency of the indirect holding system. However, the lobbying for this move would bring us back to the problem faced in 1971 as dematerialization was suggested as a way to preserve direct communication. At that time, all 50 states required that certificated shares at least be available to shareholders upon request, and a changeover was considered prohibitive. Today, all states still provide only for registered shares (as opposed to bearer shares)\textsuperscript{239} and allow the company to treat the registered shareholder as the person entitled to exercise the rights from the shares. Yet it appears that the indirect holding system has become so deeply entrenched that the SEC is more willing to move toward a type of shares wholly foreign to the United States than to allow direct, electronic links to send securities settlement information to transfer agents on a real time basis, which – as will be discussed in Part IV – would reinstate stockholder lists to their pre-1970's state of information.

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\textsuperscript{234} 17 CFR §240.14a-16(a).
\textsuperscript{235} See 17 CFR §240.14b-1(d)(2); § 240.14b-2(b)(2), (d)(2).
\textsuperscript{236} 17 CFR §240.14a-16(j); §240.14b-1(d)(4); §240.14b-2(d)(4).
\textsuperscript{237} 17 CFR §240.14a-16(j) ("The registrant must send . . . to the record holder or respondent bank . . . a paper copy of the proxy statement, information statement, annual report . . . .").
\textsuperscript{238} See 17 CFR §240.14a-16(a)(2).
\textsuperscript{239} A search in the library "All States" on WestLaw for the words "bearer share" pulls up only cases referring to foreign companies (usually South or Central American) in U.S. Courts. Also, an examination of the corporate law statutes of the states of Delaware, New York, California, Illinois and Texas, as well as the Model Business Corporation Act confirms that only registered shares are foreseen.
IV. SETTLEMENT OF TRANSACTIONS IN IMMOBILIZED SECURITIES

1. The DTCC Securities Settlement System

When considering BASIC's 1971 argument to make NYSE's Central Certificate Service the core of the U.S. clearing and settlement infrastructure, the SEC explained that in the case of a centralized system based on the immobilization of certificates, "for maximum effectiveness, the depositories would have to encompass close to the maximum number of transactions effected in the marketplace in which it is designed to serve."240 In 1980, the SEC repeated this opinion as a criterion for registering clearing agencies.241 Placing 100% of a market's securities in the hands of one entity and entering them all in its name obviates both the physical movement of securities and the need to change the stockholders list in connection with a transfer. Its effect on transaction costs might be compared to the simplicity of real estate transactions in a country where all property belongs to the crown. With respect to paperwork, total immobilization has the same effect as dematerializing the entire market, of course with the regretful side effect of forcing the nation's issuers to cede shareholder data to the depository and its participants. Today this end has been achieved by DTCC. It has been estimated that the DTCC system includes more than 99% of the depository-eligible securities in circulation on the U.S. capital markets.242 Since securities are now issued with the intention of introducing them into the DTCC system, they are certificated as "jumbo" or "global" certificates243 that evidence millions of dollars of securities on one certificate, and whose size is limited only by the amount for which DTC can obtain insurance on a single piece of paper.

DTCC is a stock corporation operated primarily by seconded officers of its customer-shareholders,244 and can be understood as the direct successor of the CCS prototype. It currently operates a number of subsidiaries, including DTC as depository and the National Securities Clearing

240 See SEC, UNSAFE PRACTICES STUDY, supra note 54, at 187.
241 Regulation of Clearing Agencies, SEC Release No. 16900, (June 17, 1980), published in Vol. 20 SEC Docket p. 434 (July 1, 1980) ("The clearing agencies registered with the Commission are essential to Congressional policy which includes a national clearance and settlement system for securities and the encouragement of broad scale participant [sic.] therein by securities professionals so as to reduce the physical movement of securities certificates. Such broad scale participation will result in the concentration of securities in a limited number of entities").
242 In 2004 DTCC's General Counsel Richard B. Nesson estimated that "somewhere North of 99%" of the depository-eligible securities in the United States were included within the DTCC system. SEC Historical Society, Fireside Chat: "Business Recovery Requirements for Clearance and Settlement in Light of September 11th" (Nov. 11, 2004), available at www.sechistorical.org. In 2000, the Securities Industry Association reported that approximately 83% of the securities traded on the NYSE were processed in the DTC system. SECURITIES INDUSTRY ASSOCIATION, SECURITIES DEMATERIALIZATION WHITE PAPER 17 (June 2000).
243 U.C.C., Article 8 Prefatory Note, supra note [♦], at D.
244 DTCC 2006 ANNUAL REPORT, supra note 230, at 50 et seq.
IV. SETTLEMENT OF TRANSACTIONS IN IMMOBILIZED SECURITIES

Corporation (NSCC), which began in the 1970's as the clearing agent of the NASD and currently operates as the "central counterparty" for the U.S. securities markets. The DTCC model is seen not only by the United States, but also by both the European Union and the Group of Thirty as an example of settlement efficiency and professional competence. According to its 2006 annual report, DTCC and its subsidiaries held $36 trillion in securities in custody, processed an average of $6.1 trillion of transactions each business day, and on one record volume day in early 2007, processed 76.7 million transactions. Overall, for 2006, DTCC settled transactions with a total value of about $1.53 quadrillion (i.e., 1.53 x 10^{15}). As said, NSCC serves as the central counterparty for trades settled on U.S. markets, which means that it interposes itself as a seller for every buyer and buyer for every seller. NCSS has roughly 4,000 clearing participants whose short and long positions against each other NSCC nets multilaterally, so that it must actually make deliveries only on the remaining, net positions through settlement accounts the participants hold with DTC and in the Federal Reserve System. In 2006 NSCC succeeded in netting out nearly 98% of U.S. market transactions, having a total value of $174.9 trillion, and made deliveries of the remaining, net sums totaling $3.8 trillion, to the participants of the DTCC settlement network. If the transactions are in certificated securities "deposited" with DTC, its nominee Cede & Co. remains the registered shareholder of all securities transferred. Before taking a look at exactly how these transactions are settled, it is useful to turn back to the UCC for a moment, to see how Article 8 was amended in 1978 and again in 1994 to accommodate the centralized depository system.

245 "A central counterparty (CCP) interposes itself between trade counterparties, becoming the buyer to every seller and the seller to every buyer. Thus, from the point of view of market participants the credit risk of the CCP is substituted for the credit risk of the other participants." CPSS & IOSCO, supra note 2, at 11.


247 DTCC 2006 ANNUAL REPORT, supra note 230, at 27.

248 Id. at 9.

249 Id. at 11.

250 Id. at 4.

251 NSCC Rules, Rule 11, Sec. 1 (b). The transactions processed in the DTCC system include not only those of the NYSE and the Nasdaq Stock Market, but also those executed on the regional exchanges. DTCC 2006 ANNUAL REPORT, supra note 230, at 16

252 NSCC Rules, Rule 11, Sec. 1 (b). See also GUTTMAN, supra note 8, at §9:15, p. 9-31.


254 NSCC Rules, Rule 11. See also GUTTMAN, supra note 8, at §9:14, p. 9-28 et seq.

255 DTCC 2006 ANNUAL REPORT, supra note 230, at 21.

256 DTC Rules, Rule 61.
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   (a) Adapting the UCC to Immobilization
   
   As discussed in Part I, to qualify as a protected (bona fide) purchaser of a certificated registered share under the UCC the certificate must be indorsed to the purchaser, and to receive rights as a shareholder under corporate law the shareholding must be entered on the stockholders list. As discussed in Part II, however, these paper-intensive activities bring the process of securities settlement to a standstill, and were thus eliminated by placing securities in the vaults of a central depository and registering them in the name of its nominee. In order to both allow efficient settlement and protect the market from inefficient apprehension of adverse claims, commercial law had to be amended.257 In 1978, at the time of the first amendments following the 1975 Act that imposed immobilization, the Article 8 Drafting Committee still hoped that "changes in ownership would continue to be reflected by changes in the records of the issuer."258 The transfer of uncertificated securities on the books of issuers would have allowed efficient, high volume settlement without sacrificing the direct relationship between issuers and shareholders. However, as the Drafting Committee noted in 1994, "[a]lthough a system of the sort contemplated by the 1978 amendments may well develop in the coming decades, this has not yet happened for most categories of securities. Mutual funds shares have long been issued in uncertificated form, but virtually all other forms of publicly traded corporate securities are still issued in certificated form."259 By 1994 DTC was rapidly expanding the services it offered, and as will be discussed below, was even able to absorb an incipient direct registration system, which had originally been conceived as an issuer driven network, into its own system. Thus the Drafting Committee took the step of cementing the "indirect holding system" – originally conceived as a second-best option – through a redesigned Article 8 UCC that somewhat resembles the SEC’s shareholder communication rules in that nothing can take place without the cooperation of the intermediaries.

Under the 1994 amendments of Article 8, intermediaries are not only the registered shareholders controlling communication and the exercise of shareholder rights, but book entries on their accounts come to create the very property rights that beneficial owners have in their securities. The Drafting Committee sketched out how claims against custody accounts with securities intermediaries would come to be the key to creating property interests in securities:

257 See GUTTMAN, supra note 8, at § 1:14, p. 1-56 et seq.; U.C.C., Article 8 Prefatory Note, "C. Indirect Holding System".

258 U.C.C., Article 8 Prefatory Note, supra note 5, at "B. The Uncertificated Securities System Envisioned by the 1978 Amendments."

259 U.C.C., Article 8 Prefatory Note, supra note 5, at "B. The Uncertificated Securities System Envisioned by the 1978 Amendments."
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The basic rule is very simple. A person acquires a security entitlement when the securities intermediary credits the financial asset to the person's account. . . Thus, a security entitlement is itself a form of property interest not merely an in personam claim against the intermediary. The concept of a security entitlement does, however, include a package of in personam rights against the intermediary.260

Securities intermediaries, through their book entries, control all transfers of ownership in respect of securities within the system, and such transfers receive the same protected status as bona fide purchases have traditionally received pursuant to the law of negotiable instruments.261 Amended Article 8 created a revised system of book-entry transfers in a wholly new Part 5 of that article, primarily through the coining of four, custom made concepts.

The first concept is "securities intermediary," the entity that is authorized to create these new property interests, and includes either an SEC authorized "clearing corporation" or any person that is in the business of maintaining securities accounts for others.262 The "securities account" referred to in this definition is the second concept, and is an account to which a financial asset may be credited under an account agreement giving the accountholder the right to dispose over the financial assets in the account.263 The term "financial assets" used in this second definition is the third concept, and specifies a very broad category of items, including all forms of securities, and ultimately "any property" held in a securities account if the securities intermediary expressly agrees to treat it as a financial asset.264 The claim that an accountholder has against the security intermediary to the financial assets in his securities account is the fourth term, the "security entitlement" referred to in the quotation above, and is a "is a pro rata property interest" in all interests in a specific financial asset that a securities intermediary holds in its accounts.265 Thus, rather than saying that a selling customer transfers the buyer her claim against her broker for 10 shares of ABC stock in her brokerage account, the conceptual framework of revised Article 8 would have us say that the securities intermediary extinguishes the seller's security entitlement to financial assets (10 shares of ABC stock) in her securities account and establishes a new security entitlement with like content in favor of the buyer. The Drafting Committee explains that this "transaction . . . is not a 'transfer' of the same entitlement from one person to another."266

260 U.C.C., Article 8 Prefatory Note, supra note 5, at "C. Indirect Holding System."
261 U.C.C., Article 8 Prefatory Note, supra note 5, at "D. Need for Different Legal Rules for the Direct and Indirect Holding Systems"; GUTTMAN, supra note 8, at § 1:13, § 1:14, p. 1-56 et seq.
265 U.C.C. § 8-503(b) and Off. Comm. (2005); U.C.C., Article 8 Prefatory Note, "C. Indirect Holding System."
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The concept of a "security entitlement" allows transactions to take place at all levels of the indirect holding system: under Article 8 a clearing participant would have security entitlements for the contents of its account with DTC, a broker using the participant as a depository would have security entitlements for the contents of its account,267 and a retail investor would have security entitlements for the contents of her account with the broker. The "security entitlement" construct is a fascinating exercise in legislative fiat because it has almost exclusively the characteristics of an in personem contract right, but by express legislative dictate is given the status of a property right.268 An "entitlement holder" may take action against a third party who has unjustly received the holder's security entitlement only if:

1. the securities intermediary holding the account has entered insolvency proceedings;
2. it doesn't have sufficient interests in the relevant asset to satisfy all its outstanding security entitlements
3. because it violated a duty under § 8-504 UCC to maintain such amounts;
4. the transferee of the security entitlement did not give value for or obtain control of the entitlement, or acted in collusion with the securities intermediary; and
5. the trustee or liquidator fails to take action to recover the asset.269

This right, which is exercisable only against the intermediary except in the extremely unlikely event of the above conditions being met, has been designated as a "property" right because a prime interest of securities settlement is to insure that the beneficial owner can recover deposited securities in the event that the intermediary becomes insolvent,270 and a property interest is the surest route to that end. It says much about the pragmatic flexibility of the United States that while other countries have debated for decades about whether this type of relationship can pursuant to healthy doctrine be placed under the legal category of "property",271 the UCC accomplished the desired end by simple legislative dictate without any real concern for logical consistency.

3. Transferring Security Entitlements within the DTCC System

Once shares of stock have been deposited with DTC – probably in the form of one or two global certificates for an entire issue – or entered in the direct registration system272 and registered in the

267 But see note 283 and accompanying text.
268 U.C.C. § 8-503(b) (2005) ("An entitlement holder's property interest with respect to a particular financial asset under subsection (a) is a pro rata property interest in all interests in that financial asset held by the securities intermediary …").
269 U.C.C. § 8-503(d), (e) (2005).
271 See e.g. DOROTHEE EINSELE, WERTPAPIERRECHT ALS SCHULDRECHT: FUNKTIONSVERLUST VON EFFEKTENURKUNDEN IM INTERNATIONALEN RECHTSVERKEHR (1995).
272 See Part IV, Section 4.
name of Cede & Co., exchange trading will bring about "transfers" of security entitlements, not shares. Although § 8-504 UCC requires intermediaries to maintain sufficient interests in financial assets to cover all of their outstanding security entitlements, entitlements themselves are created by either a book entry or a legal duty to make a book entry, even when sufficient numbers of entitlements against a higher level account or of securities do not exist. The UCC’s term for an instruction to an intermediary to extinguish or procure a security entitlement is "entitlement order". If, for example, an investor were to instruct his broker to sell "securities" in his account, the broker after placing the corresponding market or limit order would debit the customer’s securities account so as to extinguish specific security entitlements and credit his cash account. Similarly to an indorsement, an entitlement order must be given by an appropriate person or such person’s legal representative. Entitlement orders are usually given electronically or by phone, but can also be given in writing. As with an indorsement, the intermediary has a right to reasonably assure itself that the entitlement order is genuine and authorized. The same system of medallion guarantee as applies to indorsements can also be used to guarantee the signature on an entitlement order. For electronic orders, market participants use digital signatures or specific identification protocols.

As said, the principal task of the 1994 amendments of Article 8 was to replicate the various protections of the law of (certificated) negotiable instruments for “transfers” of entitlements to financial assets held in securities accounts. Under amended Article 8, for the recipient of a security entitlement to be protected against an adverse claim to the entitlement, he must acquire it for value and without notice of the adverse claim. In order to protect transaction flow, Article 8 raises the bar for finding an intermediary liable if it makes book entries despite receiving notice of an adverse claim: a securities intermediary that acts on an effective entitlement order is not liable to a person with an adverse claim unless the intermediary acts contrary to an injunction or restraining order, or in

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275 U.C.C. §§ 8-102(a)(8) and 8-507 (2005); see also GUTTMAN, supra note 8, at § 9:11, p. 9-21 et seq.
276 See U.C.C. §§ 8-507(a) and 8-107(a)(3) (2005).
277 See GUTTMAN, supra note 8, at §§8:11, p. 8-17 et seq.
279 See GUTTMAN, supra note 8, at § 9:11, p. 9-22 et seq.
280 See GUTTMAN, supra note 8, at §§ 8:13, p. 8-20 et seq.
collusion with the wrongdoer.\textsuperscript{282} Intermediaries can protect themselves against taking action on ineffective entitlement orders by requiring signature guarantees for entitlement orders.

Seen from the perspective of the securities exchange where a trade is executed and moving into the settlement system and down the pyramid of custody accounts towards the retail investor, the settlement process within the DTCC system is governed by the rules of NSCC and DTC – which do not conflict with Article 8, but would take precedence over it if they did\textsuperscript{283} – and then by contractual agreements and Article 8. First, the relevant trading system delivers matched trade data to NSCC.\textsuperscript{284} Although NSCC can settle various types of trades at different speeds, such as arranging direct delivery and payment for manually processed block trades or trades in foreign securities (referred to as "special trades"),\textsuperscript{285} normal exchange transactions would be settled as part of NSCC’s "continuous net settlement" (CNS) process.\textsuperscript{286} In this process, NSCC acts as central counterparty and thus assumes the rights and duties of the parties to each matched transaction,\textsuperscript{287} including ownership of the security entitlements involved.\textsuperscript{288} NSCC's continuous net settlement nets short and long positions in the same securities against each other multilaterally on a continuous basis, and instructs DTC to credit and debit the remaining net amount to the securities accounts of its participants.\textsuperscript{289} Amounts that remain unsettled during a cycle are continuously carried forward and included in the processing of the next cycle of CNS.\textsuperscript{290} On each settlement day, credits or debits are made to participant accounts only for the fractionally small net quantities actually necessary for the netted transactions settled, and the process continues to unfold during a period that is limited to three days by SEC rule for any given trade (T+3).\textsuperscript{291} Participants grant DTC or another "qualified securities depository" authority to make the credits and debits to their accounts as necessary.\textsuperscript{292} Unless they reflect trading solely between

\textsuperscript{282} U.C.C. § 8-115 (2005). See also GUTTMAN, supra note 8, at § 6:12, p. 6-39 et seq., § 7:15, p. 7-44.4 et seq. Of course when an intermediary trades on its own account, the rule on notice of an adverse claim applicable to ordinary purchasers will apply.

\textsuperscript{283} U.C.C. § 8-111 (2005). DTC expressly removes transactions from the applicability of the New York UCC by specifying that a "settlement account" held by a participant with DTC “is not a “securities account” for purposes of Section 8-501 of the NYUCC.” DTC Rules, Rule 1.

\textsuperscript{284} NSCC Rules, Rule 7; Procedure II.

\textsuperscript{285} See NSCC Rules, Rules 1, 11, Sec. 9

\textsuperscript{286} See NSCC Rules, Rules 5, 11; Procedures V und VII.

\textsuperscript{287} NSCC Rules, Rule 11, Sec. 1.

\textsuperscript{288} NSCC Rules, Rule 11, Sec. 2.

\textsuperscript{289} NSCC Rules, Rule 11, Procedure VII.

\textsuperscript{290} NSCC Rules, Rule 11, Sec. 1(a), Procedure VII.

\textsuperscript{291} NSCC Rules, Rule 11, Sec. 3. Trades on national securities exchanges must settle by the third day following the trade (referred to as T+3). 17 CFR § 240.15c6-1(a).

\textsuperscript{292} NSCC Rules, Rules 1, 11, Sec. 3; DTC Rules, Rule 9(B).
clearing participants, the book entries on DTC accounts would be followed by book entries creating and extinguishing security entitlements on the accounts of the downstream firms that are not clearing participants, working their way down the chain of intermediaries until they reach the account a private investor holds with her broker. During the entire process, the transfer agent would make no changes to the stockholders list and the issuer would be completely unaware of changes in ownership unless they triggered a filing with the SEC.

The cash leg of the settlement process follows a similar, but not identical route. The settlement accounts for participants are not held with DTC, but with a bank that they specify to DTC and NSCC as their "settling bank". A settling bank must be a bank or trust company subject to federal or state supervision or regulation, sign a Settling Bank Agreement, and be connected to the National Settlement Service (NSS) of the Federal Reserve System, through which the short and long positions of participants arising out of the CNS process are debited and credited. Because cash, unlike securities, is fungible between all transactions regardless of the security bought or sold, NSCC can net the net credits and debits due to or from various accounts held with a given settling bank in order to create a "net-net position" that will be credited to or debited from the bank. In contrast to the credits and debits of securities, the system rules give banks the option of initiating their own transfers to cover net-net short positions, or granting DTC and NCSS authority to pull funds from their clearing accounts to cover net-net short positions. Figure B roughly sketches the manner in which a transaction takes place in the DTCC System.

293 See NSCC Rules, Rule 55; DTC Rules, Rules 9(B).
294 DTC Rules, Rules 9(B), 9(D). Before 2007, debits ran on NSS and credits on Fedwire. A concentration of payments made on Fedwire at the close of each business day from various payment and settlement systems caused congestion, and thus all settlement cash traffic was shifted to NSS. See Self-Regulatory Organizations; The Depository Trust Company; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change Relating to Use of the National Settlement Service, Exchange Act Release No. 34–56126, 72 Fed. Reg. 42160 (Aug. 1, 2007).
295 DTC Rules, Rule 9(D).
296 DTC Rules, Rules 9(B), 9(D); NSCC Rules, Rules 12, 55.
297 See NSCC Rules, Rule 12, Sec. 1 ("The Corporation shall debit or credit … Settling Members … with the amounts payable and receivable").
Figure B
The Settlement of a Trade in the DTCC System

Seller

Buyer

Issuer remains disconnected from Transaction

Transfer Agent

Issuer

NSCCs

DTC

Accounts

Participant Account

Security Entitlement Credited
Cash Debit

Security Entitlement Debited
Cash Credited

Net Settlement Positions from CNS

DTC Debits Cash Account

DTC

Broker

(DTCC Participant)

Cash Credited

Sole Registered Shareholder: Cede & Co.

Federal Reserve

NSCC

DSVPs

Participant Account

Cash Credited

Security Entitlement Debited

Participant Account

Cash Debit

Buy Order

Sell Order

Matched Trade Data

Exchange (e.g. NYSE, Nasdaq, Amex)

Buy Order

Sell Order

Cash Credited

Securities Entitlement Debited

DTC

Participant Account

Cash Credited

Security Entitlement Debited

DTC

Cash

Broker

Cash

DTC

Cash

Broker

Cash

Federal Reserve

DTC

Cash

Buy Order

Cash Debit

Security Entitlement Credited

Cash Debit

Security Entitlement Debited

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IV. SETTLEMENT OF TRANSACTIONS IN IMMOBILIZED SECURITIES

4. The Direct Registration System

(a) Creation of the Direct Registration System

Beginning January 1, 2008, all issues listed on the NYSE and the Nasdaq Stock Market will have to be eligible for inclusion in the direct registration system (DRS). DRS had its origin in the TAD system discussed in Part II, which was favored by all market participants in 1971, viewed favorably by the market again in the survey taken by the SEC in 1976, and still constituted a goal of the UCC Drafting Committee in 1978. If the DRS as originally envisaged had been fully operational in the 1980’s the 1978 amendments of Article 8 would have likely proved sufficient for high volumes of transfers on the books of the issuers and the indirect communication rules would have been unnecessary. As discussed in Parts I and II, the 1976 SEC study fell on either side of promoting a settlement system that favored communications, so a settlement system was evaluated based on pure market efficiency criteria and rules were then designed by the Corporate Finance Division to facilitate communication around or through such systems. Computer and communications technology continued to develop, however, and the securities markets accelerated their inevitable turn towards dematerialization. Germany, which had made part of its government debt issues purely uncertificated as early as 1910,²⁹⁸ completed the job by dematerializing all government securities in 1972.²⁹⁹ In 1981, France dematerialized its entire market by legislative decree.³⁰⁰ The United States followed in 1986, by completely dematerializing government securities.³⁰¹ Thus a dematerialized equity market had a number of prominent examples to imitate.

In 1994, just as the UCC Drafting Committee was solidifying the indirect holding system in a revised Article 8, the SEC announced its intention to support the development of "an issuer/transfer agent operated book-entry registration system" that "would allow any retail investor who wants his or her securities to be registered directly on the books of the issuer" to do so.³⁰² Although modeled on systems used in dividend reinvestment and stock purchase programs, this project clearly descended from the TAD system so highly praised in 1971 and 1976, when market participants still considered immobilization as a temporary, second-best solution. The model had been proposed in 1991 by a group co-chaired by the Securities Transfer Association (STA) and the American Society of Corporate

²⁹⁸ See CLAUS-WILHELM CANARIS, BANKVERTRAGRECHT margin no. 2052 (2nd ed. 1981).
²⁹⁹ See HEINSIUS, HORN & THAN, supra note 102, at § 42 margin no. 6.
³⁰¹ See GUTTMAN, supra note 8, at § 1:13, p. 1-52 et seq.; 31 CFR §§ 357.0 – 357.45.
Secretaries (ASCS) "to offer investors an additional choice of security ownership in the form of an account statement, so that their securities could be registered in their own name on the books of the issuer." The STA and the ASCS, both of whose members work closely with issuers, discussed their original proposal with the Securities Industry Association (SIA), whose members are broker-dealers, and reached agreement on a structure that would "allow a broker-dealer to deliver electronically to a transfer agent a customer's request that the securities be registered on the books of the issuer in book-entry form . . . [and] the transfer agent to send an electronic acknowledgment to the broker-dealer that the securities have been registered in the customer's name on the books of the issuer in book-entry form." The main operational function of DRS is to allow shares to be shuttled back and forth between the accounts of the transfer agent (for registration and holding) and the broker (for trading purposes).

The two, key prerequisites unfulfilled in the 1970's – dematerialization of shares and high quality electronic communications networks – had moved toward reality in 1994. However, a transition to a decentralized DRS operated by transfer agents would have meant returning to issuers the shareholder data they ceded to intermediaries in the 1970's, and removing intermediaries from their central role between issuers and shareholders, a role in which they control all shareholder information, are indispensable for the exercise of voting rights, and even create the property interests in securities through their custody accounts. Indeed, between the legislative imposition of immobilization in 1975 and the public notice-and-comment period on DRS in 1995, the indirect holding system had considerably solidified. Brokers grew into their roles as indispensable middlemen. An entire industry sprang up to distribute proxy materials and was dominated by ADP, whose functions in this regard were spun off into Broadridge Financial Solutions in 2007. DTC and NSCC kept expanding their services and capacities and were joined together within the DTCC holding company in 1999, which has continued to create new solutions for the problems that are in part caused by its very intermediation. In addition, as discussed at length above, Article 8 UCC was custom-tailored to a system brokered by intermediaries. In light of this dynamic adaption of the market to congressionally imposed immobilization, it should come as no surprise that DTC and its owners, the broker-dealer community, took the position that the original concept of an "issuer operated" DRS was problematic. Following their rational self interest, the financial intermediaries pulled the new DRS concept into the central depository that they owned and controlled.

303 Id.
304 DRS Release, supra note 302, at 63654.
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On November 11, 1996, DRS became operational. During the years that followed, two camps competed to push through their different visions of the form that DRS should ultimately take. On the one side were issuers and transfer agents, and on the other were broker-dealers and the entities they owned, such as DTC and the stock exchanges. In 1999, brokers and DTC argued that DRS should be integrated into DTC's "Profile Modification System" for communication purposes, the result of which would be to subject transfer agents to the supervision and approval of DTC because they would have to be DTC participants to take part in DRS. Brokers found that the current system presented "unreasonable delays" in allowing "shareholders to 'recover' their shares" out of direct registration and transfer them into the broker's accounts for trading purposes. The aim of commenters "representing primarily broker-dealers" was, as the SEC explained:

Profile will allow a DTC participant (i.e., a broker-dealer) upon instructions from the participant's customer to electronically request that a "DRS limited participant" of DTC (i.e., a transfer agent) to move the customer's DRS positions to the participant's account at DTC.

On the other hand, as the SEC noted:

[C]ommenters, representing primarily issuers and transfer agents, support continuation of DRS as it is currently operating. . . . These commenters believe that the unrestricted ability to allow issues to be made eligible in DRS is in the public interest. These commenters contend that DRS as it is operating today (i.e., without Profile) benefits the marketplace by providing shareholders with another option on how to hold their securities.

Issuers and transfer agents also expressed concern that the Profile System did not offer adequate security against unauthorized persons extracting securities from direct registration. If connection to Profile were made a prerequisite for participating in DRS, no transfer agent could use DRS without becoming a participant of DTC and no issuer could place their securities in DRS without meeting DTC eligibility requirements. This of course would kill the idea of setting up DRS as an alternative to the centralized DTC model. In the many releases regarding the adoption of DRS, the SEC never indicated awareness of a conflict of interest that brokers may have in advocating a system in which

307 Id.
308 Id.
309 Id. at 51164.
310 Id.
intermediaries take over and control shareholder data. In the end, as it appeared to be a pure question of system efficiency, the SEC sided with the position of the brokers, and concluded that excluding transfer agents from DRS unless DTC admitted them to the Profile Modification System created a "more efficient mechanism."\textsuperscript{311} This follows the logic expressed by BASIC in 1971 that maximum efficiency can be reached by approaching a complete monopoly on settlement services. However, BASIC's point was that the more securities that were immobilized under the name of one entity, the more trades that could take place electronically on the accounts of that entity. Monopoly over communication systems for financial data makes no more sense than monopoly over data transmission in general. After its incorporation into Profile, any transfer agent wishing to take part in DRS would have to become a limited participant of DTC, which as a Self Regulatory Organization would approve the limited participant's admission and supervise its behavior.\textsuperscript{312} To address the concerns of transfer agents that unauthorized persons could use Profile to withdraw securities from DRS, an automatic guarantee\textsuperscript{313} backed by a surety\textsuperscript{314} was incorporated into the Profile Modification System. In its 2006 annual report, DTCC referred to DRS as "DTCC’s Direct Registration System (DRS)."\textsuperscript{315}

(b) Transferring Shares of Stock within DRS

From the diagram in Figure C, we can see that the current DRS adds one significant step to the existing DTCC settlement system sketched in Figure B. DRS allows shareholders to hold their shares with the issuer's transfer agent and register their own names (as opposed to that of an intermediary) on the stockholders list, and then to transfer the shares to a brokerage account if they choose to sell or transfer the stock for security purposes.\textsuperscript{316} Essentially, DRS is a bridge between the two structural alternatives that have been discussed since the publication of the Lybrand Report in 1969: uncertificated shares are held in databanks managed by transfer agents for issuers, but such shares can then be pulled by means of an instruction on a proprietary communication network into a broker's account where they are re-registered in the name of the central depository. In its current form, this

\textsuperscript{311} Id. at 51165.
\textsuperscript{312} Id. at 51164.
\textsuperscript{315} DTCC 2006 ANNUAL REPORT, \textit{supra} note 230, at 27.
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bridge is made possible by inserting transfer agents as "limited participants" within the DTCC system.\(^{317}\)

Today, a retail investor will at the time of making a purchase state on her instruction to the broker whether she wishes to hold her shares in DRS in her own name or through her broker in the name of Cede & Co.\(^{318}\) If the investor indicates no preference, each share purchased through the order will automatically be placed in DRS and registered in the buyer's name.\(^{319}\) In the first stage, the transaction executed on an exchange is settled through NSCC with credits and debits to DTC participant accounts, as outlined in Section 3 rather than following the rules for the transfer of an uncertificated security discussed in Part I. Although the *raison d'être* for the use of account relationships (enabling a dematerialized transfer of a still material security) no longer exists, claims to accounts and not (uncertificated) securities themselves are transferred within the DTCC system. However, when the investor elects to hold the security in DRS, the transfer from the participant account at DTC to the transfer agent would extract an uncertificated security from the custody of DTC and change the name of registration with the transfer agent from "Cede & Co." to that of the investor. As explained in Part I, under Article 8, the act of entering a buyer's name on the stockholders list simultaneously constitutes "delivery"\(^{320}\) and places the security in the "control"\(^{321}\) of the buyer, which gives the latter "protected"\(^{322}\) status against any adverse claims, provided that the buyer has given "value"\(^{323}\) for the security. Because DRS operates only with uncertificated securities, even through the relationship is no longer indirect, the investor would not receive a certificate, but rather a statement of ownership to evidence the purchase.\(^{324}\)

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322 U.C.C. §8-303(a) (2005).


Figure C
The Settlement of Trade in DRS

Sell Order, Instruction to withdraw from DRS

Balance statement showing uncertificated share owned by registered shareholder

Sell Order

Buy Order

Buy Order for DRS-eligible Security, DRS option selected

Share Registered in Name of Buyer

Share Registered in "Cede & Co."

Transfer Agent (Limited DTCC Participant)

Participant Account

Participant Account

NSCC's DTC Account

NSCC

DTC

DTC

DTC Debits Cash Account

Net Settlement Positions from CNS

Transfer Instruction

Matched Trade Data

Federal Reserve

DTC

Broker Cash

Federal Reserve

DTC Cash

Broker Cash

Exchange (e.g. NYSE, Nasdaq, Amex)
IV. SETTLEMENT OF TRANSACTIONS IN IMMOBILIZED SECURITIES

The sale of a share would move in the opposite direction along the DRS bridge. When the investor instructs his broker to make the sale, the broker would send an instruction on the Profile system to pull the share out of DRS and register it in the name of Cede & Co.\textsuperscript{325} The broker's instruction to pull the share would trigger a "screen indemnity" on the screen shot in the system seen by the transfer agent:

1. The broker represents that it has actual authority and consent for the request from either the registered owner or a duly authorized third party, and that all information provided is accurate and complete (with the representation regarding taxpayer information qualified by actual knowledge);

2. The broker indemnifies the issuer and its transfer agent against any loses, costs or liabilities arising from a breach of the representation.\textsuperscript{326}

Every user of the Profile system gives the above indemnification automatically and holds either a surety bond that pays $3 million per occurrence and an annual aggregate limit of $6 million or an insurance policy that pays $25 million per occurrence per policy with an annual aggregate limit of $100 million.\textsuperscript{327}

Use of DRS has increased steadily since 2000. Between September 2001 and December 2006, the number of DRS-eligible issues increased from 298\textsuperscript{328} to 1,406.\textsuperscript{329} This figure will skyrocket in coming years because both the NYSE and the Nasdaq Stock Market have made DRS eligibility – i.e., dematerialization – a listing requirement for new issues as from January 1, 2007\textsuperscript{330} and for all issues as from January 1, 2008.\textsuperscript{331} However, given the structure of DRS and its evolution from an alternative, issuer driven network into a feature of DTCC's service offering, an increase in DRS participation will not necessarily translate into an increase in direct registration of shareholders and direct communication between issuers and their owners. This is true primarily because brokers control the

\textsuperscript{325} DR\textsuperscript{S} GUIDELINES COMMITTEE, supra note 317, at 26 \textit{et seq}. If the relevant broker is not a participant in the DRS or the shareholder intends to draw her entire holding out of DRS, she must direct her instruction to the transfer agent. \textit{See Id.} at 24, 32.

\textsuperscript{326} \textit{See} Exchange Act Release No. 34-42704, p. 24243; DTCC DRS Overview.


\textsuperscript{329} DTCC 2006 \textit{ANNUAL REPORT}, supra note 230, at 27.

\textsuperscript{330} \textit{See} NYSE Listed Company Manual, § 501.00(A); and NASD Manual, Sec. 4350(L).

\textsuperscript{331} \textit{See} NYSE Listed Company Manual, § 501.00(B); and NASD Manual, Sec. 4350(L).
relationship with their clients and they are in a good position to convince customers of the "convenience" of keeping their DRS shares in the name of Cede & Co., ready for a quick trade and "privacy" of having their names known only to the broker. Moreover, any customer with a margin account must keep the shares with their broker for collateral purposes.\footnote{See GUTTMAN, supra note 8, at § 6a-15, S. 6A-34 et seq.} It would appear that the principle change that a completely dematerialized market will bring is increased efficiency and cost savings for DTCC itself. A structural change to DRS is discussed in the next Section. This change would both streamline the settlement process and eliminate the "flow back" phenomenon in which shares slide over the DRS bridge back into registration under the name of "Cede & Co."

(c) How DRS Could Be Streamlined

As explained above, DRS is essentially a bridge between direct registration through a transfer agent and depository registration through a broker, plus a proprietary communication system to move shares back and forth and an indemnity against unauthorized instructions. It allows shares to be parked on one side of the bridge when they are held and pulled to the other side for trading. This design looks very much like a supplemental accessory to a system that was conceived as necessarily centered around DTC. Since the centralized system was imposed in 1975, however, computer and communications technology have changed dramatically, and allow data to be securely managed and distributed along decentralized networks. The internet is only the best known example of such networks.

If DRS were modified to operate on a "decentralized" basis, transfers could take place directly on a single databank that served as transfer account and stockholders list, without shuttling shares back and forth from direct to indirect registration. Like a securities account maintained by an intermediary, the master securityholders file maintained by a transfer agent is essentially a data bank. In the case of an account, the databank's entire contents are attributed to the accountholder and these contents are subdivided into fields for the various securities held in the account;\footnote{SIMMONS, supra note 2, at 153.} in the case of the stockholders list, the databank's entire contents are attributed to securities issued by the corporation and are subdivided into fields for the various shareholders and classes of securities.\footnote{See GUTTMAN, supra note 8, at §3.14, p. 3-34; 17 CFR § 240.17Ad-9(b).} Both databanks contain proprietary information that has to be protected through available security measures. If the CNS operations of NSCC were tied into a network of transfer agent depositories, transfers of ownership resulting from trades on securities exchanges would simultaneously result in transfers of registered ownership. The same kind of representations (backed by bonded or insured indemnity) currently used...
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in the Profile Modification System could reduce the risk of unauthorized transactions on the accounts. Because ownership in uncertificated shares is transferred by means of registering the buyer’s name on the stockholders list, securities transfers would be integrally tied to the recording of record ownership. No separation between beneficial and record owners would ever occur unless a shareholder intentionally chose to remain anonymous by purchasing shares through a trust or some other fiduciary. If such transactions as loans or pledges of shares triggered a transfer of ownership, they would be visible on the stockholders list, and thus the danger of "empty" voting would be significantly reduced, at least when achieved through such transactions.

It should also be remembered that the word "decentralized" refers to the manner in which information is organized rather than where it would be located. For example, DTCC itself could set up a register/account for every U.S. listed company on a computer in the basement of 55 Water Street, New York, and the system would still be a decentralized network of stockholders lists. On the other hand, given that information moves on fiber optic networks at about the speed of light, the individual register/accounts could be located at the corporate headquarters of issuers or at the headquarters of issuers’ transfer agents without considerably slowing the settlement process. Because an account for each listed company would be attached to such a system, it might be argued that netting would be less efficient. This argument displays the type of changes that a TAD system could bring about, and is thus addressed at some length in following.

As discussed above, NSCC nets multilaterally all transactions in a given security between its clearing participants. For the cash leg of the settlement process, NSCC can net the long and short positions of participants using a common settling bank to reach a "net-net" position for that settling bank. Because of this process, actual delivery within the DTCC system has to take place for only about 2% of the transactions actually conducted on U.S. exchanges. The savings in time and capacity utilization for the core settlement system are substantial. An increase in the number of clearing participants could decrease the percentage of the volume netted away because it is unlikely that a given participant's daily transactions can be completely netted down to zero. Thus, although 98% of transaction volume can be netted out in the current system, the remaining 2% may well be composed of a remainder spread across all entities taking part in the settlement process on a given day. If NSCC has about 4,000 clearing participants, it may be that some portion of the remaining 2% of transaction

336 The current regulation of the activity of transfer agents and clearing agencies could, however, subject any such structure to regulatory difficulties, as it might well bring about an unauthorized mixing of functions.
volume goes to each participant that entered into transactions on that day. With a settlement structure based on a register/account for each listed issuer, the number of accounts participating in netting would equal the number of listed issuers whose shares were traded on that day, which may well be higher than the number of clearing participants that trade. This could reduce the transactional volume that could be efficiently eliminated by netting.

This view, however, focuses solely on the costs and efficiency of the settlement system. It displays the same narrow focus that allows a settlement system to be considered "efficient" although it generates burdensome externalities to be paid by issuers in shareholder communications in particular and corporate governance in general. If we focus solely on the tip of the custodial pyramid and see that 99.9% of transactions can be netted away, that does not mean that the individual buyers and sellers in the transactions disappear. At some point downstream, the net amounts still have to be unbundled and distributed to the regional institutions and retail investors who initiated the buy or sell orders. An example might make this point somewhat clearer. Suppose that the U.S. Postal Service announced a super efficient method for delivering mail to New York City: they bundle the mail up as it arrives from hubs in the South, West and North, pin it down with a sturdy net onto a large, wood pallet, and drop it by parachute into Central Park, which reduces their distribution costs by 99.9%. Is this efficient mail delivery? The mail indeed arrives in New York this way, but it still has to be unbundled and delivered by someone (whose costs in this example are not on the USPS balance sheet). If a DRS based on register/accounts for each listed issuer did not allow as high a volume of transactions to be netted as currently is the case, it would nevertheless offer the consolation that once the entry on the register/account was effected, the ultimate buyer or seller would be served. No partial rights would have to then be unbundled and passed along chains of intermediaries downstream to the beneficial owners. Centralized netting, while generating impressive numbers like the elimination of 98% percent of transactions, can in effect result in delivering complex bundles to downstream entities, which have to unbundle the transactions and complete the work connected with sale or purchase.

337 DTCC 2006 ANNUAL REPORT, supra note 230, at 21.
338 The net-net sum calculated for the cash leg provides a good example of the unpacking that super-netting requires from downstream entities. As discussed, pursuant to NSCC Rule 55, the net short and long cash position of a settling bank and all its participant customers are netted against each other a second time to produce a condensed figure, which substantially reduces the actual flow of funds. However, the bank then has to unbundle this amount into payments to/from itself and all of its accountholders participating in the settlement process. Reduction of actual flows does not mean reduction of processing costs, and reduced flows are most significant when cash or certificates need to be physically delivered, which today is rarely the case. As a result, the "reduction" of processing costs at the tip of the custodial pyramid is actually a shifting of such costs to entities more distant from the center of the settlement process, and the power of such entities to change the process usually decreases with their increased distance from the center.
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The use of register/accounts in connection with share lending displays yet another difference between the intermediated and the direct systems. Share lending is a highly recommended technique for avoiding settlement fails, and should thus be encouraged. Central security depositories (CSDs) like DTC are advantageous for lending programs because they hold large amounts of a given class of securities and thus form a liquid pool for share loans. Thus share lending is a profitable service that CSDs can offer. In recent years some discussion has been dedicated to the problem of "empty" voting by persons who borrow shares in which they have no economic interest, and proposals have been made to expand the various schedules filed under § 13 Exchange Act to create information on share lending. Like information for shareholder communications, information on share lending can be best captured at the source, and a register/account that records changes in ownership simultaneous to changes of record shareholders would be such a source. Thus, depending on how the loan were structured, a TAD system might well be able to provide the kind of information necessary to avoid "empty" voting. However, by moving the information out of the intermediaries it could also move the fees out of the intermediaries. A register/account would be a good place for share lending because it would contain all the shares of a given class. One could even imagine shareholders agreeing in the issuer's certificate of incorporation to terms and condition of a share lending program to which they could opt in if they wanted to earn extra income from their shares. This way, lending would not only be transparent, but the profitability of lending would go to individual shareholders rather than having a large portion of it being spread throughout various intermediaries.

These examples of netting and share lending teach us something about the overall design and effects of the indirect holding system. It shifts heavy costs (negative externalities) on to persons outside of the central circle of the system and creates opportunities for persons within it. The structure was chosen in an emergency situation, and the fact that it generates heavy externalities was accepted because no other alternative was in sight. Now that almost all states permit uncertificated securities, custody accounts are no longer necessary to create the effect of a faux dematerialization. Now that fiber optic networks can send proprietary financial information with high security at the speed of light, it is no longer necessary that registration of transfers be avoided by placing America's shares in the name of Cede & Co. and flushing transaction costs downstream to others. To grasp the overall effect

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339 For an authoritative discussion of the advantages of securities lending, see TECHNICAL COMMITTEE OF THE INTERNATIONAL ORGANIZATION OF SECURITIES COMMISSIONS (IOSCO) & COMMITTEE ON PAYMENT AND SETTLEMENT SYSTEMS (CPSS), SECURITIES LENDING TRANSACTIONS: MARKET DEVELOPMENT AND IMPLICATIONS 24 et seq. (1999).

340 SIMMONS, supra note 2, at 325.

341 Hu & Black, supra note 335, at 1054 et seq., and Kahan & Rock, supra note 209, at 29 et seq.
V. POSSIBLE REASONS FOR THE INDIRECT HOLDING SYSTEM'S CURIOUS ENDURANCE

The reasons for a capital market in which intermediaries control all shareholder data and issuers are isolated from shareholders have disappeared with ongoing dematerialization and advances in technology. As DTCC itself explains, paper is being steadily eliminating and the vaults are mostly empty. 342 Such markets as the United Kingdom, 343 Germany 344 and France 345 have securities

342 According to DTCC, transactions in certificated securities constitute only about 0.01% of daily trading volume. Because storing large amounts of negotiable paper requires large, acclimatized, secure facilities, DTCC has for years advocated the elimination of paper, and the number of certificates it holds on deposit has steadily decreased. Between 2001 and 2007 the number of certificates DTC held in its vaults decreased by about 60% from approximately 6.7 to 2.7 million certificates. Michael Bellini, Dematerialization Makes Steady Gains, @DTCC NEWS AND INFORMATION FOR DTCC CUSTOMERS 12 (Jun 2007), available at www.dtcc.com.

343 In the United Kingdom, Schedule 4 of the Uncertificated Securities Regulation 2001 (2001 Nr. 3755) provides that the name, address and holding of all shareholders of uncertificated shares be recorded in the settlement system and transferred to the issuer, and that the latter record the information in a “Record of Uncertificated Shares.” See JOANNA BENJAMIN, MADELEINE YATES & GERALD MONTAGU, THE LAW OF GLOBAL CUSTODY §§ 9.16, 9.75 (2nd ed. 2002). This technical potential for a complete and up-to-date stockholders list has apparently not been sufficient to avoid the problems discussed in the Myners report (see Part III, Section ), perhaps because not enough of the market issues uncertificated shares or stockholders chose not to provide their data. However, sec. 793 Companies Act 2006 provides U.K. companies the power to demand disclosure of beneficial owners.

344 In Germany, Clearstream Banking Frankfurt AG generates sub-accounts in the custody accounts of its clearing participants by assigning an alphanumeric code to the entitlements held for specific investors and replicates this data in the data banks of the share registers attached to the settlement system. See Donald, supra note †, at 145 et seq.

345 In France, all shares are dematerialized but they are also legally bearer shares. Thus the corporation issues the shares by booking them into an originating account with a custodian bank, and the bank then holds accounts for individual shareholders. The wall of banking secrecy creates a wall that turns the "registered" shares into anonymous bearer shares. All shareholder information is, however, made available to the Republic of France for tax purposes. See Maffei, supra note 300, at 104.
settlement systems that can provide full information on a company's shareholders. Thus there is no technological limitation to generating and distributing such information, as there was in the 1970's. Based on what we know about the rise of the indirect holding system, as discussed in Part II, it is not clear why this intermediary-based system remains. This paper proposes as reasons a lack of awareness and financial interest.

I. Unawareness

A lack of awareness usually derives from disinterest, and disinterest is usually caused by assumed irrelevance. For example, even securities specialists were in the past often unaware of how credit derivatives functioned, but once the market began to use them heavily, relevance led to interest and interest to awareness. The same might be said of Congress' attitude towards special purpose vehicles before and after the collapse of Enron. Today, very few people think that the structure of securities settlement has any material relevance for anyone beyond the technicians who design such infrastructure. This is rational as the current design will never cause a dramatic collapse, but only a slow bleeding of funds from issuers to intermediaries and a nagging inexactness in shareholder voting, coupled with a growing understanding that shareholders should be distant and estranged from the companies they own unless they are large enough to file a Schedule 13D. Thus for years, the indirect holding of nearly the entire economy in the name of "Cede & Co." has appeared a curious oddity for those who noticed it, but was questioned by few. An article by Professor J. Robert Brown, Jr. published in 1988,346 remained a lonely piece of scholarship on the subject for years, and drew very little attention. When in 2004 The Business Roundtable proposed a rule to shift some costs of distributing proxy materials to intermediaries, they seemed unaware that the design of the indirect holding system was the cause of such costs problem.347 The author of this paper filed a comment with the SEC on a securities settlement concept release shortly thereafter arguing that only a structural change to eliminate the need to communicate through intermediaries would allow the heavy externalities borne by issuers to be eliminated.348 When The Business Roundtable next addressed the question in 2006, they had teamed up with the original proponents of the (issuer-driven) DRS system, the Securities Transfer Association and the Society of Corporate Secretaries, and requested that the

346 Brown, supra note 184.
settlement system be reviewed for structural change. Professors Marcel Kahan and Edward B. Rock have also recently published a very interesting paper that follows in the footsteps of the Myner’s and Oxera reports discussed in Part III by showing how the indirect holding system creates costs and risks for the voting process in the United States. As awareness grows of the causal connection between using the indirect holding system and the high costs of unnecessarily ceding shareholder data to intermediaries, interest in this hitherto obscure area will doubtless draw more attention.

Another form of unawareness is institutional. At least since the 1976 Street Name Study, the SEC has assigned the supervision of securities settlement structures to one division – Market Regulation – and the task of finding a cure for the shareholder communications problem to another division – Corporate Finance. The resulting bureaucratic loop is perhaps best summarized in the conclusion of the Street Name Study, which is very informative about what happens when a problem falls between the institutional cracks:

The TAD [Transfer Agent Depository] concept exhibits promise as an important long-term alternative. It is not, however, a system for streamlining communications but rather an approach to a national clearance and settlement system which, as a by-product, would improve issuer-shareholder communications. Development of TAD, therefore, must be integrated with other developments in clearance and settlement.

Although the Street Name Study punts to the Division of Market Regulation on the TAD, it would have been unsound professional practice for that Division to have focused on a simple “by-product” rather than the main issue. Experts in the field of securities settlement generally understand efficiency and safety, not secondary effects on shareholder communications, to be the focus of their interest. As a result, a system capable of generating a corporate governance “by-product” was not actively pursued. On the other side of the Commission, the staff of the Division of Corporate Finance worked constantly to correct the problems caused by the congressional order of immobilization through enacting and amending Rules 14a-13, 14a-16, 14b-1 and 14b-2. In this way, one Division tugged in one direction while the other pulled in the other, apparently prevented by their divisional mandates from overcoming this somewhat myopic institutional professionalism. Recently, however, this


350 See Kahan & Rock, supra note 209.

351 SEC STREET NAME STUDY, supra note 108, at 43.

352 See SCOTT, supra note 2, at 278 (“The chief aims of clearing and settlement are efficiency and safety”).

353 Brown, supra note 184, at 715 (“By promoting immobilization, the Commission essentially implemented a policy designed to increase the use of street name accounts. Thus, in the 1970s, the Commission both
V. POSSIBLE REASONS FOR THE INDIRECT HOLDING SYSTEM’S CURIOUS ENDURANCE

barrier seems to have been broken by seating proxy and settlement structure experts at the same tables in a recent roundtable session at the SEC.\textsuperscript{354}

A third form of unawareness is the failure to see a conflict of interest in allowing intermediaries themselves to design a system that benefits intermediaries while creating additional costs for issuers and shareholders. Leading studies do examine the corporate governance of central securities depositories and other settlement entities,\textsuperscript{355} but they focus on traditional problems of utilities like access to services\textsuperscript{356} and charges to system users. When the interests of the broader group of “stakeholders” – which includes issuers – is mentioned, costs are assumed to be limited to the price of clearing and settling trades,\textsuperscript{357} and do not include indirect communication or the prices of downstream entities having to unbundle super-netted sums. One article, by the legal staff of the European Central Bank does point out that in the case of uncertificated shares, placing the register in which the shares are originated in the hands of a CSD will give the latter extensive power over whether and issuer has access to the capital market.\textsuperscript{358} No major studies by international organizations or regulatory bodies refer to an awareness of this conflict of interest.

2. Interest

Part II discussed the strong interests that brokers and banks had in the 1970’s to establish a centralized depository system in New York City. The creation of the NASDAQ system had destroyed a New York monopoly on the OTC market, and the 1975 Securities Acts Amendments placed the NYSE in the most severe competitive struggle it had ever seen at a time that New York City itself was sliding towards bankruptcy. At the time, it was hoped that setting up a central certificate service in New York would guarantee the city at least a certain amount of enduring centrality and perhaps bring concrete advantages to local institutions. The states of both the markets and of technology spoke strongly for such a centralized system. Today, with different markets and different technology (as well as the undisputed dominance of New York), these reasons no longer remain, but only the market participants themselves, the clearing entities and exchange members, are in a position to launch a new


\textsuperscript{355}THE GROUP OF THIRTY supra note 103, Recommendation 17, p. 50 et seq.

\textsuperscript{356}Id. at Recommendation 18, p. 52 et seq.

\textsuperscript{357}Id. at Recommendation 19, p. 54 et seq.

system. As Prof. Robert Schwarz and Dr. Reto Francioni, explain, issuers have little place in the decision-making of stock exchange infrastructure:

Historically, exchanges have been membership organizations, and for a membership organization the answer is straightforward: The broker-dealer intermediaries, who are their members, are their primary customers. With a membership organization, the other two constituents (investors and the listed companies) are important primarily because they are critical for the profitability of the members. Nevertheless, the bottom line is, with a membership organization, the interests of the intermediaries come first.359

This principle of broker-dealer control of the market infrastructure was made painfully obvious in the manner that the DRS system, which was conceived as an issuer driven project, was turned into a service option of DTCC, for which issuers now pay fees. The listing of the major stock exchanges may shift this balance of power as institutional investors take larger stakes in the NYSE and the Nasdaq Stock Market and become aware of problems that the indirect holding system causes for shareholder communication and voting. However, issuers remain distant from the actual operation of the market’s trading and settlement systems, and should be able to look to the SEC to promote their interests in the SRO rulemaking process. To date, however, it appears that the SEC has remained unaware of any conflict of interest between issuers and intermediaries.

Broker-dealers obtain a number of advantages from the indirect holding system, although it is difficult to estimate their value. First among the benefits is likely to be customer loyalty.360 Like a garage that stores its customer's winter tires during the warmer seasons, a broker that has its customer's shares knows he will return, if only with a request to close his account. This means that the broker always has its customer's current address, and can contact him to offer its services and potential transactions. It also means that the broker will always have a last chance to keep its customer from changing brokers, a last opportunity to make a special offer and win back a customer. The advantage of this position is certainly obvious when compared to one in which shareholders could contact any broker based on price and reputation to make a sale of shares held with the issuer in a register/account. A second advantage that brokers may enjoy under some circumstances is an increase in assets under management. To avoid the risk that the broker will engage in unnecessary transactions to drive up her commissions ("churning"), some customers contract to compensate their brokers with a "wrap fee", according to which commissions are calculated in relation to an agreed-upon aggregation of transactions executed, advice rendered and total assets that the broker holds under management for the

359 SCHWARTZ & FRANCIONI, supra note 43, at 93.
360 See WELLES, supra note 60, at 144.
The indirect holding system brings assets under the broker's control more or less by force majeure, thus increasing the wrap fee. A third reason could be the prestige of controlling the "broker vote" often used to support management. Without a system in which proxy materials passed necessarily through brokers, this power would not exist.

The value of shareholder information to brokers is evidenced by the force with which they defend their possession of it. Customer lists have for brokers a value that is certainly comparable to "leads" for salespeople. In the course of their 1976 Street Name Study, the SEC inquired whether the creation of a NOBO list would violate the privacy of shareholders. The perspective of brokers was evident in the fact that they found a release of NOBO lists to endanger their customers' privacy, while on the contrary nearly 88% of the shareholders responded that they were prepared to unconditionally provide the requested information to issuers. It is difficult to understand why the SEC found it only worthy of mention in a footnote that brokers were concerned that release of that data could mean losing customers to competitors. Staff counsel for the SEC has told the author of this paper that brokers now consider shareholder data their own property.

The motives of companies like Broadridge are even stronger. They may look at the creation of a truly functional system of direct registration the same way that London's famed boatmen looked at the building of more bridges across the Thames – as an open threat to their raison d'être. These service companies draw their profit directly from the inefficiencies of the indirect holding system, and it took little time for Senator Frank Lautenberg's former partners to turn ADP, the company that he helped build, into an indispensable part of the market structure after Congress ordered the imposition

361 For a discussion of "wrap fees" or "wrap accounts", also with particular regard to churning, see NORMAN S. POSER, BROKER-DEALER LAW AND REGULATION § 16.01 (2nd ed., 2001); LOSS & SELIGMAN, supra note 92, at §8-C-1; LAURA S. PRUITT, BROKER-DEALER REGULATION, ALI-ABA COURSE OF STUDY 34 (2006).
362 SEC STREET NAME STUDY, supra note 108, at 40.
363 Id. at 41.
364 Id. at 40, footnote 84.
365 Telephone conversation with member of legal staff from Division of Market Regulation, November 2004.
366 Senator Frank R. Lautenberg entered the U.S. Senate in 1983. See AUTOMATIC DATA PROCESSING, INC. ADP 50TH ANNIVERSARY, 1949-1999 pp. 23, 26 (1999), available at http://www.investquest.com/iq/a/adp/. This is well after debate and voting on the 1975 Act, and thus he could have had nothing to do with advocating the building of the immobilization dam so that a reservoir of backed up communications would form on which his former company could feed. ADP formed its Investor Communication Services in 1989. See Id. at 32.
of immobilization. Although such services are to be praised for allowing the U.S. markets to excel despite a crippling disruption of shareholder communications, their services would all but disappear if shareholders or their chosen agents were registered directly with issuers. This makes it all the more surprising that regulators interested in studying the indirect holding system and its problems turn to service providers like ADP or Broadridge for unbiased information on the market.

Certainly, such intermediaries and service providers have no reason to advise that the system be changed in such a way to eliminate their central role as registered shareholders under § 17A(e) Exchange Act and as the creators of "security entitlements" under Article 8 UCC. If for no other reason than respect for their own stability, reliability and skills, they will advise that they should remain in this central – and profitable – position.

CONCLUSION

This paper has explained how the choice of the indirect holding system for securities settlement forced U.S. issuers to cede their shareholder data to intermediaries. Part II described how the paper-intensive process of transferring certificated securities led to a market failure in the 1960's. It further showed how the indirect holding system was seen as a temporary, second-best solution pending the dematerialization of shares and improvements in communications technology. In the mean time, the effects of separating beneficial and record ownership led to an expensive and inefficient process of shareholder communication and voting. Part III examined this process, whose inefficiency offered service providers the profitable niche industry of assisting issuers to distribute proxy materials through and around extensive chains of intermediaries. Part IV explained how, when law and technology had developed sufficiently to allow a return to a system of direct issuer-shareholder relationships via a direct registration system, intermediaries acted rationally to absorb DRS into the DTTC system, and continue to enjoy their central role between issuers and shareholders. This Part also demonstrated how a truly effective direct registration system could provide the transparency necessary to address problems such as "empty" voting and could arguably spread the costs of securities settlement more equitably through broader-based netting, rather than pushing them downstream. Part V argued that although the indirect holding system and its negative effects are no longer necessary, a combination of unawareness and interest serves to perpetuate a perceived need for issuers and shareholders to cede their ownership/governance relationship to a custodian utility, which then offers to put them back into

367 Between 1989 and 1999, ADP's market share for the distribution of proxy materials to shareholders whose shares were held in "street name" rose to over 90%. See Id. at 32.
contact, for a fee. By explaining the interests behind choices made and the possibility of alternative structures, this paper hopes to assist regulators to serve the entire market, not just its central hub.
WORKING PAPERS

1 Andreas Cahn  Verwaltungsbefugnisse der Bundesanstalt für Finanzdienstleistungsaufsicht im Übernahmerecht und Rechtsschutz Betroffener (publ. in: ZHR 167 [2003], 262 ff.)

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