Electronic Funds Transfer: a Survey of Problems and Prospects in 1975

Stephen M. Ege
ELECTRONIC FUNDS TRANSFER: A SURVEY OF PROBLEMS AND PROSPECTS IN 1975*

STEPHEN M. EGE**

We are now well into the computer era, which came of age sometime following the close of the Second World War. Consumers will soon see evidence of the computer's handiwork or, as it is called in the trade, information processing systems applications, in settings more intimately connected with their life styles, such as the purchase of consumables.

The supermarket industry has begun installing in several pilot locations a checkout counter that, using a laser beam scanner, will read a pattern of bars imprinted on every food item sold. The information will be fed into a central processing unit located in the store or in a central location in a metropolitan area. This unit will, in turn, relay identifying and pricing data to the checkout counter, where a device will then print a description of the item and its price on a paper tape that the customer will receive with his purchase. The operation will have much the same appearance as it does at present,

* Copyright © 1975 by Stephen M. Ege.


I received research and editorial assistance in the preparation of this article from Steven I. Klein, third year student, University of Maryland School of Law. I also received much helpful criticism from attorneys in other federal regulatory agencies. The views expressed in this article, however, are my own and do not necessarily represent the views of the Board, staff, or those who reviewed this article.

1. N. Wiener, CYBERNETICS (1948), heralds the on-coming.

2. In England the general population is still composed, in part, of "customers" rather than those whose principal public aspect seems to be one of ingestion. The author, nevertheless, will bow to the current fashion and refer to the general public as "consumers."
except that the checker will only pass items over the scanner, leaving
the machine to ring up the price.³

But behind every purchase there is, of course, a payment. Finan-
cial institutions have made significant efforts to reduce the costs of
processing payments.⁴ In 1968 two clearing house associations formed
a Special Committee on Paperless Entries (SCOPE) to develop an
automated clearing house for San Francisco and Los Angeles. In that
same year the major banking trade group, the American Bankers
Association, formed a committee on Monetary and Payment Systems
(MAPS) to study the paper check clearing problem. In 1970 a
study commissioned by that group concluded that the present check
collection system was adequate until the 1980's.⁵ Nevertheless, the
implications of the rising flood of paper were evident to many. The
example of the back office problems of the securities industry, too,
cannot have been lost on policy makers. In 1971 MAPS released a
report calling for the establishment of regional automated clearing
houses, and during the same period the Federal Reserve issued a call
for improvement in the payments mechanism.⁶ Also in that year, a
group of Atlanta banks, including the Atlanta Federal Reserve Bank,
began to study the possibility of forming an automated clearing house
in Atlanta.⁷

³ In this system the price stamp is an irrelevant item, a feature over which
some consumer groups have voiced concern, fearing secret price changes by merchants.

There will be some surprising developments in other areas too. General
retailers, especially the larger chains and affiliated department stores, will, within a
relatively short time, begin scanning their merchandise with "wands." Presently,
general merchandisers collect information about the goods they sell by reading per-
forated paper tickets collected, somewhat haphazardly, after sale. "Wanding" promises
to capture information on a greater percentage of sales and give the retailer a better
picture of his inventory turnover.

⁴ The development of automated clearing houses, their operating rules and
procedures, and some of the legal issues they present are discussed in Homrichausen,
One Large Step Toward Less-Check: The California Automated Clearing House
System, 28 BUS. LAW. 1143 (1973) [hereinafter cited as Homrichausen].

The principal banking-trade paper, American Banker, has faithfully chronicled
the development of electronic funds transfer services. The author is indebted to
Phillip Brooke, Technology Editor, for many helpful references to stories which have
appeared in the Banker and which form a factual background for this article. The
stories tracing these developments have been so numerous as to make it impractical
to list them.

⁵ Arthur D. Little, Inc., The Outlook for the Nation's Payments System:

⁶ Board of Governors of the Federal Reserve System, Statement of Policy on
Payments Mechanism, 57 FED. RES. BULL. 546 (1971). See also Evolution of the
Payments Mechanism, 58 FED. RES. BULL. 1009 (1972).

⁷ Atlanta Payments Project, Automated Clearing Houses: An In-Depth
Analysis, at 17, Mar., 1974. This study is the most recent of the several published
The fruition of these various studies was the opening, in October of 1972 and May of 1973, of automated clearing houses in San Francisco and Los Angeles, and in Atlanta. The principal function of these automated clearing houses is the distribution of payroll payments, but the system is also designed to permit individuals to initiate recurring payments, such as mortgage and utility payments. Employer payments, consisting of wages and salaries due employees, are made by means of magnetic tape or punched cards delivered to either the San Francisco Federal Reserve Bank or the Los Angeles branch. Magnetic tape, punched cards, or paper advices (for banks not having the necessary processing equipment) containing the appropriate information are then forwarded to the employee’s bank. The employer’s bank pays the employee’s bank by interbank settlement at the Federal Reserve Bank.

At this writing the volume of transactions has been rather low, about 40,000 payments per month. Even so, the system significantly reduces the flurry of paper required to effect these payments through the use of checks. It is anticipated that as more employers join the system, the volume of transactions will greatly increase. The Atlanta system works in much the same way; again, primarily payroll items are processed in the manner described above. Similar automated clearing house operations were begun in Boston and Minneapolis in July of 1974, and other cities are expected to follow suit.

An automated clearing house speaks volumes about electronic funds transfer (EFT). It is also a logical starting point in the development of EFT systems. The automated clearing house (ACH) builds upon the old and familiar clearing house where checks and cash letters are exchanged. At the same time the ACH illustrates an important consequence of the substitution of a financial institution payment mechanism for cash: to have a payments mechanism, there must be provision for settling payment transactions between financial institutions where the party paying and the party paid do not bank at the same institution. Under the present system banks maintain clearing balances on one another or on a common bank, such as the Federal Reserve Bank. The new automated clearing house still adjusts balances, as it must, but with much greater speed since transactions to be cleared are processed electronically and not by means of hand sorting, paper and pen, and someone skilled in figures.
Not long after the announcement of the implementation of automated clearing houses by commercial banks in a few cities, a federally chartered savings and loan association, whose statutory powers differ in several significant respects from the powers of federally chartered banks, that is, national banks, devised a remote deposit and withdrawal system. Again, the terminal, as in the case of the grocery check-out, is in the supermarket, and, essentially, the federal association offered to take a supermarket out of the check cashing business. A supermarket customer who is an association accountholder tenders a supermarket employee a plastic card that is placed in a reading device that captures information contained in a magnetic stripe located on the back of the card. This information, together with a personal identification number, authenticates requests to deal with the account. A supermarket employee enters the transaction type (whether deposit, withdraw, or check cashing) and the amount into a communications device linked by telephone lines to the central computer at the association. The central processing unit then checks authenticating information and effects a transfer of funds in the amount indicated. In the case of a withdrawal, the customer's account at the association is debited, and he receives cash from the supermarket's own cash on hand after the central processing unit has indicated to the supermarket employee that the withdrawal transaction may proceed. The supermarket makes itself whole in the transaction by receiving a credit to an account that it maintains at the association. In the case of a cash deposit, the supermarket receives the cash after the central processing unit has authorized a deposit transaction. The depositor's account is credited and the supermarket’s account at the institution is debited. Deposits by check are treated in the same way as cash deposits, except that the supermarket forwards the check for collection. Several other savings and loan associations and commercial banks plan to offer similar plastic-card activated services.

The commercial bank automated clearing house and the federal association supermarket deposit, withdrawal, and check cashing service are the two principal electronic funds transfer services under discussion by the financial industry at this writing. There is another

9. One of the most significant limitations on payment powers is contained in Section 5 of the Home Owners’ Loan Act of 1933, 12 U.S.C. § 1464(b)(1) (1970), concerning the use of “negotiable and transferable” payment orders.

10. Supermarkets do a great deal of financial business. It is rumored that in one state a single supermarket chain cashes more checks per unit of time than does any financial institution but one, and that institution happens to be the largest bank in the country.

11. Fedwire, an electronic funds transfer system run by the Federal Reserve System, transfers great sums between Federal Reserve banks, including some third
mode of providing electronically facilitated financial services at the point of customer contact which is probably more familiar to the reader. These are the so-called automated cash dispensers and automated teller machines. These machines, which are usually found on or in the wall of a home office or branch of a financial institution, may receive deposits in the form of cash or check, may perform transfer functions between accounts of the same individual, and may dispense cash. A few thousand are currently in use. These machines have not generated as much interest in industry circles as have the other two systems, chiefly, it seems, because their use does not contain the competitive threat of the other two systems. These units are not as versatile as the ACH, and are more costly than the simple communications device of the supermarket system.

The final class of funds transfer operations, a combination of the ACH and supermarket systems, is the point-of-sale or point-of-purchase system. Like the supermarket system outlined above, the point-of-sale system involves a third party, but with the difference that payment can be effected without the intervention of currency. That is, the customer's purchase initiates a withdrawal from his account at a financial institution and an instantaneous credit to the account of the retailer. Where the customer and business enterprise do not maintain their accounts at the same financial institution, there

party transfers, such as in the purchase of commercial paper by corporations. In 1973 the Fedwire transferred over $23 trillion. ANNUAL REPORT OF THE BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, 1973, at 286 (Table 9) (1974). Settlement between Federal Reserve Banks occurs through the Interdistrict Settlement Fund maintained in Washington, D.C. The central switching mechanism for these transfers is located in Culpepper, Virginia.

Bankwire is a private sector equivalent of Fedwire. Bankwire also transmits funds, but only where the two parties to the transmission maintain balances on one another as correspondent banks. There is little published information regarding Bankwire operations. For a brief description of Bankwire, see Knight, The Changing Payments Mechanism: Electronic Funds Transfer Arrangements, MONTHLY REVIEW, July-Aug., 1974, at 19 n.15 (published by the Federal Reserve Bank of Kansas City, Missouri) [hereinafter cited as Knight].


13. There are other payment services in addition to those described here which do not involve the transfer of funds. One example is the "credit pad," which is a communications device used to inquire as to the risk associated with accepting a check tendered by a customer in payment. See PAYMENT SYSTEMS NEWSLETTER, July, 1974, at 2. Facilities initially used for account verifications may, at a later time, be employed for performance of other financially related services, such as credit extensions. Knight, supra note 11, at 12-15, describes other payment services, such as check truncation, which have generated little interest. See also Survey, Toward a Less-Check Society, 47 NOTRE DAME LAW. 1163 (1972).
Maryland Law Review [Vol. 35

will be a need to settle accounts through something like the automated clearing house described above, with the buying customer taking the place of the employer and the retailer taking the place of the employee. This system may be viewed as the “pure” or “true” electronic funds transfer system, being one in which payments are instantaneous and independent of the use of paper. Such a system is hypothetical at this writing, although one federal savings and loan association plans to install a grocery payment service that will operate in this manner. A very different system, used to pay monthly bills from home, has also surfaced. A few mutual savings banks are now offering pay-by-phone services which permit accountholders to pay any designated payee.

This, then, is the broad sweep of electronic funds transfer in the second quarter of 1975. It seems likely that automated clearing houses will be established in major metropolitan areas over the next several years. Displacement of cash and checks at the point of sale or for use in paying monthly bills will doubtless grow more slowly. A vast number of consumers must find the system attractive if the “cashless-checkless society” is to flourish, whereas, by contrast, an automated clearing house takes its impetus from the concurrence of large employers and their employees. Use of automated clearing houses for federal and state social welfare payments should also spur ACH development.

Presently, the principal dynamic in the development of electronic payment systems of the types described is the deposit competition existing at the margin of the respective statutory and regulatory

14. Fedwire and Bankwire, described in note 11 supra, and ACH operations may all involve third party transfers. It is the point-of-sale or point-of-purchase EFT system, however, that, rightly or wrongly, is regarded as the “true” EFT system. A recently published study suggests the possibility of business-to-business EFT systems. See Credit Research Foundation, Inc., Electronic Funds Transfer Systems for Business Payments (1973).

15. 31 U.S.C. § 492 (1970) permits government benefit payments to be directly deposited in a financial institution for the credit of beneficiaries. The Department of the Treasury and the Social Security Administration are presently studying implementation of a direct deposit procedure similar to the ACH employer payments discussed above. See Department of the Treasury, Federal Recurring Payments Through Financial Organizations by Means Other Than by Check, 40 Fed. Reg. 16669 (1975), which sets forth proposed regulations regarding this program.

16. The development of a payments system is fundamentally rooted in and dependent upon development of appropriate hardware. Major nationwide retail chains and nationally affiliated department stores are expected, within the next several years, to have electronic cash registers in place which could serve as payment terminals. This action by retailers may mean that they will have a significant voice in the determination of available payment services. Retailing chains have also competed vigorously for credit. According to one recent study a large retailing chain has a credit program “more sizable than either of the two national bank charge card systems.” C. Christophe, Competition for Financial Services 5 (1974).
powers of commercial banking and thrift institutions. As other parties begin more fully to seek participation in a payment system, the electronic funds transfer system equilibrium will become increasingly complex and convoluted.

This article will examine, with financial institutions receiving the most attention, what is in essence a movement by society into an environment where financial services will be provided without paper. No claim is made here that the treatment of problems discussed is exhaustive. The conclusions offered are tentative, an appropriate posture since so many facets of electronic payment systems are as yet undeveloped. It is hoped that the remarks which follow will provoke further discussion. Nevertheless, the legal problems presented by electronic funds transfer systems are of some immediacy because these systems will, in all probability, fundamentally alter current patterns of business practice. Electronic funds transfer systems will change the way in which banking institutions deal with their customers, and they will alter the existing competitive balance among these institutions. Important and difficult regulatory questions are presented, and, because EFT will generate a new base of information regarding the behavior of our citizens, significant constitutional questions will be raised.

The areas of legal concern to be examined are the following: (1) At the outset financial services will be offered by financial institutions subject to state and federal regulation. The question presented is whether these services are permissible given the statutory powers of the relevant institutions. (Only federal limitations will be explored; state limitations are myriad.) The branching limitations of national banks will be considered in detail. (2) Electronic funds transfer systems require information interchange for settlement purposes. This information must either be physically delivered, as in the case of the ACH magnetic tapes, or communicated directly over telephone company lines. Since communication common carriers are regulated entities, a question arises concerning the extent to which regulation by the Federal Communications Commission and by the state communications regulatory authorities is proper. The issues raised in this area by decisions of the FCC will be discussed but briefly. (3) The question of the relevance of the complex body of law concerning negotiable instruments and "bank deposits and collections" of Articles 3 and 4 of the Uniform Commercial Code has two major subdivisions: the utility of the UCC payment rules in an electronic environment and the extent to which the body of federal law that may be expected to develop regarding these electronic funds transfer systems will super-

17. See Part I infra.
cede any inconsistent UCC provisions. (4) Questions presented under the broad heading of the "credit card" debate include the applicability of the provisions of Title VI of the Federal Consumer Credit Protection Act and the extent to which the development of these services trouble the familiar distinction between "payment" and "credit." (5) New safety and security problems are posed by the new systems. Difficulties in applying current criminal prohibitions regarding theft, embezzlement, and the like, applicable to federal financial institutions, will be examined. (6) Antitrust considerations unique to electronic funds transfer systems will be analyzed. Of particular interest are questions concerning the clearing systems and other points of access to electronic funds transfer systems, and the doctrine of "essential facilities," or "bottlenecks." (7) Finally to be explored are the broad political questions which such systems raise. The integrity of a payments system is critically dependent upon the correct identification of users (in contrast to the cash systems). A principal cause for concern will be the increased potential for political control which seems to be inherent in the system. Related to these concerns is the matter of "privacy" in one's financial affairs.

I. Federal Control Over Electronic Funds Transfer Services Through "Branching" and "Payment Powers" Limitations

The body of law establishing federal control over financial institutions qua financial institutions is complex. It involves a division of responsibility among federal regulatory agencies based on chartering authority, whether state or federal, membership in the Federal Reserve System or Federal Home Loan Bank System, and federal insurance of deposits and accounts. The focus here will be on federal regulation of the establishment of "branches" and over what may broadly be termed "payment powers." The discussion will be limited to institutions which are regulated by the principal banking agencies — the Board of Governors of the Federal Reserve System, the Comptroller of the Currency, the Federal Deposit Insurance Corporation, and the Federal Home Loan Bank Board.

A. Federal Control Over Branching

The federal statutory restrictions on branching of thrift institutions that are federally chartered, federally insured, or members of the

Federal Home Loan Bank System are relatively simpler than those of commercial banks. There are (almost)\(^1\) none. However, the Federal Home Loan Bank Board, which administers the legislation establishing federal regulatory control over savings and loan associations, as a matter of policy limits the branching of federal savings and loan associations by taking into account branch or branch-like limitations applied to state chartered associations.\(^2\)

National banks, before establishing new "branches," must gain the approval of the Comptroller of the Currency,\(^3\) state chartered banks that are members of the Federal Reserve System must obtain approval of its Board of Governors,\(^4\) and non-member state-chartered banks insured by the Federal Deposit Insurance Corporation must obtain approval of the Corporation.\(^5\) Federal approval power is significantly limited by the actions of state authorities, since federal legislation renders the branching power of national banks (and of state member banks) dependent upon state law\(^6\) and subjects state non-member insured banks to similar requirements in establishing branches.\(^7\) This reliance on state law poses problems for the establishment of electronic funds transfer systems because of a tendency to treat the hardware necessary for the functioning of these systems as "branches," and because a large number of states have enacted legislation which imposes varying degrees of restraint on branching.\(^8\)

\(^{20}\) Section 5(c) of the Home Owner's Loan Act, 12 U.S.C. § 1464(c) (1970), establishes statutory approval procedures for District of Columbia building and loan associations.

\(^{21}\) 12 C.F.R. § 556.5(b) (1975).


\(^{25}\) 12 U.S.C. § 36(c) (1970) provides, in pertinent part:
A national banking association may, with the approval of the Comptroller of the Currency, establish and operate new branches: (1) Within the limits of the city, town or village in which said association is situated, if such establishment and operation are at the time expressly authorized to State banks by the law of the State in question; and (2) at any point within the State in which said association is situated, if such establishment and operation are at the time authorized to State banks by the statute law of the State in question by language specifically granting such authority affirmatively and not merely by implication or recognition, and subject to the restrictions as to location imposed by the law of the State on State banks.


\(^{27}\) See Kreps, Modernizing Banking Regulation, 31 LAW & CONTEMP. PROB. 648, 657 (1966); Verkuil, Perspectives on Reform of Financial Institutions, 83 YALE L.J. 1349 (1974); 1 CCH FED. BANKING L. REP. ¶ 3106 (1973).
Section 36(c) of the National Bank Act, which contains the statutory authority for branching by national banks, has served as a kind of fulcrum for the debate over proper state-federal control of banking. Section 36(c) provides generally that national banks may branch to the extent authorized for state banks by state law. The precise linkage between state and federal branching authority has been subject to searching inquiry by the courts. In First National Bank v. Walker Bank & Trust Co., the principal case construing section 36(c), it was contended that so long as there is some state statutory authorization for the establishment of branches, the Comptroller may approve national bank branches without regard to state imposed limitations. The contention advanced was consistent with the language of section 36(c)(1) which required that the service in question be "at the time expressly authorized to State banks by the law of the State in question." Had that argument prevailed, a state statute permitting branching to any extent would have opened the door to branching by national banks subject only to the Comptroller's approval. The Court rejected the tendered reading, however, saying:

It appears... that Congress intended to place national and state banks on a basis of "competitive equality" insofar as branch banking was concerned....

The Comptroller argues that [the state's] statute "expressly authorizes" state banks to have branches in their home municipalities. He maintains that the restriction, in the subsequent paragraph of the [state] statute limiting branching solely to the taking over of an existing bank, is not applicable to national banks. It is a strange argument that permits one to pick and choose what portion of the law binds him. Indeed, it would fly in the face of the legislative history not to hold that national branch banking is limited to those States the laws of which permit it, and even there "only to the extent that the State laws permit branch banking."

National banks, with the approval of the Comptroller of the Currency, have on occasion attempted to avoid restrictive state branching

29. See note 25 supra.
30. See note 25 supra.
31. 385 U.S. 252 (1966), rehearing denied, 385 U.S. 1032 (1967). Prior state disapproval of branching applications evidently eliminates a similar determination by the Federal Reserve under 12 U.S.C. § 321 (1970) for state member banks, although the same combined federal-state standard used in section 36(c) of the National Bank Act is made applicable. While the same or a similar question of appropriate standards could theoretically arise with respect to state non-member insured banks under 12 U.S.C. §§ 1828(d), 1816 (1970), the question has evidently not been one subject to analysis in reported decisions.
32. 385 U.S. at 261.
statutes by contending that a facility was not a branch and, therefore, not subject to the branching limitations imposed by section 36(c). Section 36(f), which defines the word "branch," provides:

The term 'branch' as used in this section shall be held to include any branch bank, branch office, branch agency, additional office, or any branch place of business . . . at which deposits are received, or checks paid, or money lent.83

In *First National Bank v. Dickinson*34 a national bank located in Florida received permission from the Comptroller to operate an armored car messenger service and an off-premises receptacle to receive cash and checks for deposit.85 The Florida Comptroller contended that these services violated Florida’s prohibition against branch banking, and hence section 36(c). First National and the Comptroller counterered that the activity engaged in by First National did not amount to the operation of a branch as defined in section 36(f).

The Court rejected the Comptroller’s contention "that state law definitions of what constitutes 'branch banking' must control the content of the federal definition of § 36(f),"86 reasoning that Congress could not have intended that the states have the power to authoritatively interpret section 36(f) and thus be "the sole judges of their own powers."37 *Dickinson* thus suggests that *Walker Trust*, which bound national bank branching limitations to state branching limitations, does not put the power of determination exclusively in the hands of the states.

Having pronounced the definition of “branch” to be a matter of federal law, the Court next turned to the question whether the activities of First National amounted to branch banking under section 36(f). The bank had argued that it was not “receiving deposits” apart from its chartered place of business, since by agreement with its customers deposits were not deemed made until funds were actually delivered to the bank’s tellers at its chartered premises. The Court ruled, however, that while the contracting parties were free to arrange their own liabilities, it did not follow that such arrangements determine the meaning of section 36(f). The Court gave this gloss to the definition of “branch”:

Because the purpose of the statute is to maintain competitive equality, it is relevant in construing ‘branch’ to consider, not

---

35. The armored car would call at places of business to pick up cash or checks for deposit or to deliver cash to meet business needs; the stationary receptacle was located in a shopping center and could be used to make deposits.
36. 396 U.S. at 133 (footnote omitted).
37. Id.
merely the contractual rights and liabilities created by the transaction, but all those aspects of the transaction that might give the bank an advantage in its competition for customers. Unquestionably, a competitive advantage accrues to a bank that provides the service of receiving money for deposit at a place away from its main office; the convenience to the customer is unrelated to whether the relationship of debtor and creditor is established at the moment of receipt or somewhat later.\textsuperscript{38}

The Court held that for purposes of the “receipt of deposits” requirements of section 36(f), deposits had been received at the time the customer delivered his deposit either to the armored carrier or to the stationary receptacle. The service offered, therefore, was within the definition of a “branch” and, since branching was prohibited under Florida law, was thus prohibited under section 36(c).

The law of national bank branching after \textit{Walker Trust} and \textit{Dickinson} is not easily stated. The holding in \textit{Dickinson} foreclosed a narrow reading of the term “branch” under section 36(f). The Court emphasized the broad sweep of the definition\textsuperscript{39} and bottomed its holding upon considerations of “competitive advantage.” Taken together, \textit{Walker Trust} and \textit{Dickinson} preserve a limited measure of flexibility to the Comptroller in construing section 36, however. Under section 36(c) the Comptroller must look to state law, including its limitations, to find the words which will permit proposed national bank facilities to go forward. At the same time he may frame his definition of “branch” under section 36(f), not upon the requirements of state law (as under section 36(c)), but rather upon considerations of “competitive advantage.” The Comptroller may thus shield and insulate approvals where he cannot show no “advantage in . . . competition for customers,” and thus that no branch has been established.\textsuperscript{40}

The Comptroller is not entirely precluded from giving a competitive advantage to national banks. Where state banks, although authorized by state law to engage in certain activities, in practice are

\textsuperscript{38.} \textit{Id.} at 136-37.

\textsuperscript{39.} \textit{See id.} at 135.

\textsuperscript{40.} \textit{Walker Trust} and \textit{Dickinson} are cases which blunt competitive initiatives by national banks; they may have gone too far in that direction. State authorities may be free to secure a competitive advantage for state banks by excluding EFT terminals from the state definition of a “branch.” National banks could thus be presented with a dilemma: a service which constitutes a “branch” under section 36(f) because of its potential competitive advantage and which, therefore, may be prohibited to national banks under section 36(c) and state branching laws, but a service which, on the other hand, is permitted to state banks. Perhaps it will be necessary in such cases to consider state law definitions in defining branch banking under section 36(f), at least insofar as state definitions might eliminate any potential competitive advantage for national banks.
not making use of their authority, the Comptroller will find a "competitive advantage" and thus a section 36(f) branch, but he will also find, and thus may approve, the activity permitted by state law under section 36(c).

A critical issue remaining after Walker Trust and Dickinson is the proper measure of "competitive advantage." Shortly before the Dickinson case, the Court determined that in measuring the competitive effects of bank mergers for purposes of section 7 of the Clayton Act, the "cluster of services" offered by the merging institutions, rather than the individual service offerings such as checking and savings accounts, was the appropriate product market. In Dickinson the "competitive advantage" of the remote deposit and checking services seems to have been assumed by the Court even though one could have argued that a broader measure of advantage could have been taken.

B. Federal Control Over Payment Powers

Control over what may be termed the "payment powers" of financial institutions exists at both the federal and state level. The checking account, of course, is the premier payment account; it involves the use of negotiable payment orders drawn on commercial banks accessing on account payable on demand. Familiar state law rules govern the negotiability of the payment order and the nature of an account payable on demand, as well as other matters concerned with the business of written payment orders.

Federal control over payment accounts builds upon the underlying state law structures and consists of three central limitations. First, while commercial banks are authorized to offer checking accounts, member and insured banks are prohibited from paying interest on accounts payable on demand. Secondly, the authority of federally chartered savings and loan associations (but not of other classes of insured and member thrift institutions) to offer payment services is limited by statutory provisions governing the transferability and negotiability of orders drawn on their accounts. Recently enacted legis-

43. The references here, of course, are to Articles 3 and 4 of the Uniform Commercial Code (1972).
44. UNIFORM COMMERCIAL CODE § 3-108 provides: "Instruments payable on demand include those payable at sight or on presentation and those in which no time for payment is stated." Under state law, instruments, rather than accounts, therefore, are payable on demand.
lation\textsuperscript{47} prohibits the payment of interest on accounts using negotiable or transferable instruments for all states except New Hampshire and Massachusetts and applies to both commercial banks and to thrift institutions.\textsuperscript{48} After much debate over the legislation, an interest bearing account, whether or not payable on demand, may be used in connection with negotiable orders of withdrawal (the so-called NOW account) in those two states.\textsuperscript{49} The federal financial agencies concerned have issued implementing regulations.\textsuperscript{50} Thirdly, checking account deposits of member commercial banks, which include about 5,700 of the nation's 14,000 commercial banks, representing roughly four-fifths of bank demand deposit liabilities,\textsuperscript{51} are subject to the reserve requirements imposed by the Board of Governors of the Federal Reserve System.\textsuperscript{52} Federal control over the use of accounts maintained at financial institutions as payment accounts is thus dependent upon two factors: whether a negotiable instrument is to be used in connection with the account, and whether the account is payable on demand.\textsuperscript{53} All three central federal limitations on the use of such accounts as payment accounts may be derived from these two factors.

Savings and loan associations, just as commercial banks for time deposits, have historically maintained savings accounts as non-demand accounts, that is, accounts on which the association may claim a right to notice prior to honoring withdrawal requests. In practice savings accounts and time deposits have been payable "on demand" in the sense that withdrawal requests are routinely honored at the teller's window. The physical inconvenience of visiting a banking or savings and loan office has limited use of time and savings deposits as a "payment account," although clearly cash obtained from withdrawal

\textsuperscript{48} 12 U.S.C.A. § 1832(a), (b) (Supp. 1975).
\textsuperscript{49} The initiatives of a Massachusetts mutual savings bank which gave rise to this legislation, together with a discussion of some of the legal issues presented, is found in Comment, \textit{The Negotiable Order of Withdrawal (NOW) Account: "Checking Accounts" for Savings Banks?}, 14 B.C. IND. & COM. L. REV. 471 (1973).
\textsuperscript{50} See 12 C.F.R. § 217.5 (1975).
\textsuperscript{53} \textit{But see} note 44 \textit{supra}. State law, then, apparently determines when instruments are payable on demand, federal law when deposits are payable on demand. See 12 U.S.C. §§ 371a, 461, 1828(g) (1970).
from the accounts is used for payments. In New Hampshire and Massachusetts a negotiable order of withdrawal drawn on an interest bearing account may be subject to a prior notification requirement and still function as a check since there is no need to visit the office location.\footnote{An order of withdrawal may be negotiable and still not payable on demand, of course.}

Although non-Federal Reserve member institutions, such as savings and loan associations, presently offer NOW accounts, the legislation establishing them does not require that special reserves be maintained.

C. Branching, Payment Powers, and Electronic Funds Transfer Systems

The branching and payment powers limitations address two very different sets of problems. The branching debate is a debate over which governmental authority, state or federal, shall have control of banking institutions. Limitations on the power to make payments, on the other hand, raise questions of competition among classes of institutions; the debate over which services should be permitted for which classes of institutions may occur at either the state or the federal level. These problems are related, of course. The branching question has an obvious competitive component, and the financial services questions have broad government policy facets, including the question of how best to secure adequate financing for home ownership.\footnote{See, e.g., Federal Home Loan Bank Board, A Financial Institution for the Future (1975).} Electronic funds transfer systems raise both sets of problems, control and competitive balance, at once. As a result, the existing legal categories for defining these two sets of problems, the "branch" and the "check," do not well serve to focus the debate over these new systems.

Branching is a conceptual hobgoblin. The Supreme Court in \textit{Dickinson} took the definition of the branch to the extreme of generality by, in effect, declaring any activity creating a "competitive advantage" to be a section 36(f) branch. Its plain meaning conjures up something different — an impressive building festooned with marble and brass. It is not a very great leap to extend the branch idea to a machine established by a financial institution for the purpose of carrying on a set of banking transactions. The conceptual picture clouds considerably, however, where someone other than a bank owns and operates the machine, for example, a cash register located in a retail location and wired to a bank's computer for purposes of making payments by adjusting balances between customer and store. Several opinions of attorneys general and recent state EFTS legislation have
addressed the device-as-branch question, arriving at various conclusions.\textsuperscript{56} No clear trend has yet emerged. As will be seen presently, both major federal financial regulatory agencies having chartering authority have determined that electronic funds transfer terminals are not branches.\textsuperscript{57}

Proper classification of these systems as branches or not is a controversy which will, in all probability, not soon abate. By focusing on the devices as branches, a forum is provided for the continuing debate over federal versus state control of these new services and of banking in general. To characterize the devices as the equivalent of passbooks or checks is a point which state regulatory authorities may be unwilling to concede, although functional equivalencies may be seen, since there is no serious question of the power of the federal government to determine what services federally chartered institutions may offer. At the same time, there is no absence of cases involving liabilities on a check which are determined in accordance with state law, even though the check is drawn on a federally chartered bank.\textsuperscript{58} Individual institutions chartered by different authorities will have an interest in branch characterizations, especially where branch determinations fix rights of protest to such installations.\textsuperscript{59}

As the \textit{Dickinson} Court noted, the branching issue is one concerned with competitive advantage as between state and federally chartered institutions, and certainly the institutions which establish these devices hope to gain just such an advantage. One can question, of course, whether installation of these devices has as significant a competitive impact as installation of a full-fledged branch, bricks and all. There is an interesting consequence to the branch-as-competitive-

\textsuperscript{56} In Illinois, for example, the Attorney General has ruled that the installation on bank premises of currency dispensing machines in national and also in state chartered banks constitutes a prohibited branch bank. \textit{Op. Ill. Att'y Gen.}, File No. S-734 (1974). The Kansas Attorney General has ruled, however, that a supermarket deposit and withdrawal system making use of computer terminals installed by financial institutions but operated by store personnel is permissible under state law, even though Kansas prohibits “branching” except for certain “auxiliary teller services.” \textit{Op. Kansas Att'y Gen.}, No. 74-196 (1974); \textit{Kan. Stat. Ann.} § 9-1111 (Supp. 1974). The Kansas Attorney General reasoned that the business of banking was not transacted at the terminal locations but on bank premises. Kansas has recently enacted statutes dealing with \textit{electronic funds transfers}, declaring the terminals not to be “branches.” \textit{Senate Bill Nos. 513, 519} (1975). Utah, while not declaring electronic funds transfer systems to be “branches,” has nevertheless placed a moratorium on their emplacement until July 1, 1976. \textit{Senate Bill No. 100} (1975). Many states are now in the process of adopting electronic funds transfer legislation.

\textsuperscript{57} See text accompanying notes 60–61 and 64 \textit{infra}.

\textsuperscript{58} E.g., \textit{Stone & Webster Engineering Corp. v. First Nat'l Bank & Trust Co.}, 345 Mass. 1, 184 N.E.2d 358 (1962).

advantage idea. If over the long term, at least at retail locations, the devices are shared by all financial institutions, as seems to be the inevitable trend, what may colorably constitute a competitive advantage initially for national banks will miraculously disappear; competitive advantage and branch will rise and fall together.

Electronic technology confuses payment powers limitations as well by doing away with the necessity of creating a negotiable instrument for purposes of conveying payment orders from accountholder to financial institution. As a result the new technologies present two intriguing options to users. The accountholder can turn any account into a “payment account” by dealing in cash if machines are strategically and conveniently located, or the accountholder could, by electronically ordering the institution to do the paying for him by appropriate debits and credits to accounts, eliminate the use of cash or paper. Either procedure may exist within present federal limitations on payment accounts.

As among classes of institutions offering different services, neither present federal limitations on use of accounts for payment nor the competitive impact of electronic funds transfer systems command restriction of their use to institutions having checking account powers. From the competitive point of view, at least in the near term, although the electronic funds transfer terminal may be used to effect cash or electronic payments, the retail terminal is clearly not as versatile as its paper check cousin. A terminal is required at each location where a payment is to be made. At best, electronic funds transfer terminals are only rudimentary, location-bound payment media.

To try to shoe-horn these new systems and devices into uncomfortable categories in an attempt to resolve the government authority and competitive balance issues they raise is an unhelpful if not unwise course. Electronic funds transfer systems will require a new set of limitations to serve financial institution policy. The labeling of these systems should come after, not before, the policy debate.

D. Federal Regulatory Actions

At this writing two regulatory agencies have issued electronic funds transfer regulations and one has issued an electronic funds transfer ruling. The “remote service unit” regulation of the Federal Home Loan Bank Board, issued on June 28, 1974,60 permits federally chartered savings and loan associations to “establish, maintain or use one or more remote service units” located, generally, within the state where the association’s home office is located. A remote service unit

is not a branch or other office facility of a federal association, but is defined as "an information processing device . . . by means of which information relating to financial services rendered to the public is stored and transmitted . . . to a financial institution and which . . . is dependent upon the use of a machine-readable instrument in the possession and control" of accountholders. The definition includes computer terminals in retail locations and automated teller machines. It most probably would not include a home terminal or an automated clearing house used to route employer or government payments.

The FHLBB regulation permits associations to "participate" in the use of a remote service unit with other federally insured financial institutions, including commercial banks, and contains a laundry list of permitted activities, principally deposits and withdrawals. The FHLBB regulation also provides that the Board will in some cases request the views of the Antitrust Division of the Department of Justice or require clearance by the Department by means of a business review letter. It requires that associations establishing remote service units "shall establish and maintain safeguards acceptable to the Board to insure the privacy and confidentiality of account information."

The FHLBB has received applications from federal associations in over fifteen states pursuant to the regulation seeking permission to establish automated teller machines, manned remote deposit and withdrawal facilities in retail locations, and one proposal to use terminals at a grocery store checkout counter which will permit electronic payments for groceries. Pilot projects approved under the regulation will be terminated on July 31, 1975, unless the Board extends the term of the regulation. The National Credit Union Administration has also promulgated a regulation taking a similar pilot project approach to the establishment of electronic funds transfer systems by credit unions.

On December 12, 1974, the Comptroller of the Currency published an Interpretative Ruling declaring that "customer-bank communication terminals" are not branches within the meaning of section 36(f) of the National Bank Act. The customer-bank communications terminal is not expressly defined, but the ruling provides that national banks "may receive and act upon communications from its

63. 12 C.F.R. § 721.3 (1975).
customers transmitted through electronic devices or machines requesting the withdrawal of funds either from the customer's deposit account or from a previously authorized line of credit, or instructing the bank to receive funds or to transfer funds for the customer's benefit. National banks wishing to establish the communications terminals are to notify the Comptroller prior to installation and provide a detailed description of the unit except where the devices are used only to transfer funds or to verify a customer's credit for the purpose of cashing a check or making a credit card transaction. Sharing of terminals with other financial institutions is permitted, but not required, "to the extent consistent with the antitrust laws." The communications terminals may be established within fifty miles of a national bank's main office or branch, and may be established without geographic limitation if the unit is shared with one or more financial institutions located within the trade area of the terminal. The ruling contains no termination date. The Comptroller has received over thirty notifications under the ruling for automated teller machines and retail deposit and withdrawal facilities.

In November of 1973, the Federal Reserve proposed an amendment to its Regulation J (governing the collection of checks through the Federal Reserve System). In brief, the proposal would permit parties, through use of the Fedwire system, to initiate credit or debit transactions. Balances maintained by member banks at Federal Reserve banks and the Interdistrict Settlement Fund (to effect the transfer between Federal Reserve banks) would be used to accomplish the transfer of funds. The system proposed would be used principally as a means of transferring credit among Federal Reserve districts. National corporations, for example, could use the proposed system to make employee payments or to accept payments, such as for insurance premiums. The Federal Reserve sought comment on three major questions: (1) the appropriate role in the ownership and operation of various components of the proposed system by the Federal Reserve System, other public bodies, and private institutions; (2) the extent and conditions of access to the Fedwire system by various

67. Credit transfers are funds transfer orders given by an accountholder to his financial institution with directions to pay a third party; debit transfers are the same transfers of funds except that the party to be paid, rather than the accountholder, initiates the transfer, in fashion similar to the way in which funds are transferred through the present paper-based check collection system. Of course, parties need not be accountholders to effect either type of transfer if they can provide the financial institution with a substitute payment medium.
financial institutions; and (3) the allocation of costs of operating the system. Numerous parties submitted comments on the proposal, which, at this writing, has not been adopted in final form.

The actions by the FHLBB and the Comptroller are currently the subject of litigation testing the authority of the agencies to take these actions. This litigation will provide the courts with an opportunity to resolve some of the questions regarding federal limitations over branching and payment powers discussed in earlier sections of this Article. A National Commission on Electronic Fund Transfers has been recently established by the Congress for the purpose of examining the implications of electronic funds transfer systems, including their relevance to existing federal limitations over the operations of banking institutions.

If the federal regulatory actions are upheld, the National Commission will have the benefit of an empirical base (at least of systems established by federal institutions) upon which to make its recommendations to Congress.

II. A SHORT LOOK AT COMMUNICATIONS ISSUES

If methods permitting payments to be accomplished instantaneously are used, as opposed to the non-instantaneous "batching" modes used in ACHs and by most automated teller machines, some of the issues concerning the regulation of communications media will be confronted. American Telephone and Telegraph and its associated companies provide most of the nation's communications services as a regulated monopoly. Where electronic funds transfer services are to be provided instantaneously, the lines of these companies will be used, either through the switched network which regularly permits dialed telephone calls, or through lines directly linking communications points, the so-called dedicated lines. One cannot willy-nilly connect one's own equipment to lines of a communications common carrier. In fact, until recently, telephone company rules forbade any type of "interconnection" outright. The FCC, in its celebrated Carterfone


71. The Fedwire uses such dedicated lines to perform credit transfer functions between Federal Reserve banks.
decision, determined that this rule unreasonably and discriminatorily limited use of the telephone system. The telephone company has filed a tariff with the FCC establishing certain technical specifications, requiring the use of a telephone company provided interconnection device, and prohibiting the introduction of "network control signalling," dialing, by customers. A formal rule-making proceeding currently under way at the FCC is determining the reasonableness of the proposed tariff. Argument on the merits of these tariff provisions will center around increased maintenance costs, degradation of switching capability, and overload of the present system's communications capacity.

The dramatic increase in remote computer use led to serious disruptions of telephone service in some areas of the country during the 1960's. This suggests that a similar problem could be presented by large scale use of electronic funds transfer systems operating in an on-line, real-time mode. From an economic point of view, the telephone company's current tariff structure, in which business service subsidizes residential service, may be affected if a loss, or potential loss, of revenues from business sources can be shown. The interconnection question is made no easier by the existence of a jurisdictional dispute between the FCC and state communications regulatory authorities. And, of course, a substantial question raised by Carterfone and the subsequent tariff is what the appropriate extent of AT&T involvement in the provision of electronic funds transfer hardware and payment services should be.

Beside attempts by regulated communications carriers to seal off the communications system, there is the question of whether or not EFT systems will be subject to communications regulation. The FCC has taken the position that even where it has regulatory jurisdiction over a communications service, it may decline to exercise that jurisdiction where to do so would be in the public interest. In the Computer Inquiry the Commission determined not to regulate data processing services even though those services may also involve communication

---

73. See American Tel. & Tel. Co., 15 F.C.C.2d 605 (1968).
74. See Proposals for New or Revised Classes of Interstate and Foreign Message Toll Telephone Service (MTS) and Wide Area Telephone Service (WATS), 35 F.C.C.2d 539 (1972).
77. Id.
services, such as between a terminal and a central processing unit. The FCC might take a similar position where it could conclude that the public interest was adequately being served by other regulatory authorities. However, issues relating to the technology of communications are foreign to banking agencies and there well may be a case for concurrent jurisdiction if communications issues can be split off from banking issues. A determination that electronic funds transfer services are common carrier services and subject to rate regulation would also, under a 1956 consent decree, provide a basis for AT&T participation in the provision of these services which would not be limited to communications hardware and service.

Certainly this bare outline cannot but suggest the importance of these communications questions. We are not likely to soon see the "pure" electronic funds transfer system that would raise these questions to the level of practical importance, though both Fedwire and Bankwire, which regularly transfer billions of dollars in funds over their facilities, are singular exceptions. What is most striking is the seemingly artificial line, the use of telephone wires or radio communication, which brings with it a host of difficult communications regulation issues. It may well be, as these systems and the debate on the subject mature, that some of the early distinctions will require redefinition.

III. Articles 3 and 4 of the Uniform Commercial Code

An electronic funds transfer system may operate without any paper whatsoever; the paper negotiable instrument may completely disappear in the "pure" or "true" EFT system. The paper check payment mechanism with which we are so familiar can be replaced by an electronic communications system. At least this is the prospect. If this proves true, then the discussion of electronically facilitated financial services which has begun to emerge in relation to the Uniform Commercial Code has been miscast. The central legal problem has been viewed as one of fitting the contemplated systems into the provisions of Article 4, "Bank Deposits and Collections," and especially into its definition of "item." The argument for application of Article 4 is


79. Clarke has made a forceful statement of this view in his An Item Is an Item Is an Item: Article 4 of the U.C.C. and the Electronic Age, 25 BUS. LAW. 109 (1969) [hereinafter cited as Clarke]. Professor Dunne took an early look at Fedwire and the adequacy with which payment problems created by Fedwire were treated by the Code. He concluded with suggested amendments to Article 4. Dunne, Variations on a Theme by Parkinson or Some Proposals for the Uniform Commercial Code and the Checkless Society, 75 YALE L.J. 788 (1966).
easily traced. Section 4-104(1)(g) defines an “item” as “any instrument for the payment of money even though it is not negotiable but does not include money.”\(^80\) An “instrument,” while not defined as such in Articles 4, 3, or 1, is taken to mean a “writing.” A “writing,” in turn, is defined in section 1-201(46) to include “any . . . intentional reduction to tangible form.”\(^81\) This section is taken as the basis for the assertion that any durable medium used for the transmission of information, such as magnetic tape, even though not human-readable, supplies the requisite “writing.”\(^82\) Just as proponents of this argument would concede that their deduction is lacking in certain critical definitional steps, so one may as freely concede that the definition of “writing” is indeed quite broad. A writing, according to the proponents of this argument, covers “the cave paintings of Altamira; the totemic symbols of the Mixtecs; the calendario of the Aztecs; the syllabary of the early Cypriots; [and] the Hindu sunya.”\(^83\) But the problem is to devise appropriate rules for electronic funds transfer systems, not a code of curatorial dispositions.

It would be better to free electronic funds transfer systems from the assumption that the Code applies to disputes arising from use of the new systems. There are two strong reasons for adopting this approach. First, it is quite doubtful that the Code’s draftsmen could have foreseen the electronic funds transfer systems that are today developing. The rules of Article 3 and Article 4 are old. The Code, after all, achieved its general shape a generation ago,\(^84\) and successive revisions of the Code have left Articles 3 and 4 virtually untouched. Moreover, Article 3 traces its lineage to the nineteenth century British Bills of Exchange Act,\(^85\) and Article 4 to the Bank Collection Code,\(^86\) approved by the sponsoring organization in 1928.\(^87\) Methods of pay-

\(^{80}\) **Uniform Commercial Code** § 4-104(1)(g).

\(^{81}\) **Uniform Commercial Code** § 1-201(46).

\(^{82}\) See Clarke, *supra* note 79, at 112.

\(^{83}\) Id.

\(^{84}\) See Braucher, *The Legislative History of the Uniform Commercial Code*, 58 *Colum. L. Rev.* 798 (1958). Former Professor Braucher’s article has become the standard reference to Code drafting history.


\(^{86}\) See **Uniform Commercial Code** § 4-101, Comment.

\(^{87}\) See II *Paton’s Digest* 1373 (1942). According to the sponsoring organization:

There has long been need for a uniform code of rules governing bank collections which will give the sanction of law to modern customs and practices of banks and obviate the necessity for the printing of special agreements on deposit slips, pass books and other literature for their protection. Not only are existing rules growing out of earlier conditions which no longer obtain, unsuited to present
ment are changing and may require entirely different legal treatment. Do we not commit an indiscretion of judgment by proceeding on the assumption that rules for the regulation of electronic funds transfer systems must be extracted from the comfortable regime of Articles 3 and 4 of the Uniform Commercial Code, a system of rules derived from a paper information transfer system?

Secondly, attempted extractions have placed untenably strained constructions on the Code's provisions. To conclude that signalling or communications systems, in which information is stored on magnetic tape or on disks at the central processing unit, are synonymous with the inked, human-readable paper memoranda that traditionally constituted Code items strains credulity. To reach such a conclusion troubles the fundamental soundness of a code which sought "to avoid making practical issues between practical men turn upon the location of an intangible something . . . and to substitute for such abstractions proof of words and actions of a tangible character."

The significant reforms of Article 9, for example, were likewise dependent upon analysis of function rather than upon conceptual matters. The rules respecting "commercial paper" and "bank deposits and collections" take their soundness from and rest upon a foundation of practical affairs. To the extent that matters are to change by the introduction of new electronic funds transfer systems, the case for the application of Code provisions is undercut, as may be seen by an examination of several sections of Articles 3 and 4 that are inapposite in their literal application to EFT systems.

conditions, but the conflict of such rules, as established in the different states, makes uniformity a desideratum especially as the currency of checks and other paper is nation-wide in scope and the rules governing the collection and payment of such paper should be uniform, irrespective of state lines.

To accomplish the purpose of uniformity and modernization of the law governing bank collections, three successive tentative drafts of a bank collection code were prepared and submitted to various bankers, expert in the practice of check collection, to attorneys for banks and to members of the Committee on State Legislation and the State Legislative Council of the American Bankers Association for their suggestions and criticism.

The third tentative draft was approved in substance at the meeting on October 1, 1928, of the Committee on State Legislation subject to technical changes which the General Counsel was authorized to make. . . .

The detailed provisions of the code have proved to be practicable and it is hoped that it can be uniformly enacted in all states. Due to the complications of the subject it is a difficult one to regulate with scientific exactness. . . .

Id. (quoting from an opinion of the American Bankers Association).


Articles 3 and 4 deal with the fact that people desiring to make payments (or to make promises to pay) are looking at, writing upon, losing, stealing, signing, forging, carrying about, revising, failing to complete, doing business in strange places with, and otherwise handling paper. Many provisions of Articles 3 and 4 start with the assumption that the paper document will be read and understood without the intervention of machines, that is, that the documents are human-readable. A transferee, for example, is to be able to spot a negotiable instrument at a glance. By thus assuring himself of the integrity of the instrument with which he deals, the transferee may receive the protections of the holder in due course, a doctrine designed to promote the currency of the instrument and thus its utility in trade as a method of payment. If payments are to occur by means of electronic communications networks, which will include standards for the format of message transmissions, it is not clear that human-readable components will play a significant role as an indicator of the integrity of a transaction or in giving greater commercial utility to

90. A “writing” is a prerequisite for negotiability. UNIFORM COMMERCIAL CODE § 3-104(1).

91. Part I of Article 3 permits a number of variations to be made in executing instruments while not affecting the “negotiability” of the instruments. See, e.g., UNIFORM COMMERCIAL CODE §§ 3-105(1), 3-108, 3-109(1), 3-111(c), 3-112. Thus, a variety of transactions may make use of the “negotiable” instrument, variously executed.

92. See UNIFORM COMMERCIAL CODE §§ 3-603, 3-804, applicable to conflicting claims to ownership of an instrument.

93. The point is subject to debate, but a person taking through a thief evidently may not be a holder in due course of his stolen bearer instrument. The argument in part rests on the requirement of “delivery,” which is the “voluntary transfer of possession.” UNIFORM COMMERCIAL CODE § 1-201(14). For further thought on this subject, see White, Some Petty Complaints About Article Three, 65 MICH. L. REV. 1315 (1967).

94. See UNIFORM COMMERCIAL CODE §§ 3-401, 3-402, 3-403. These rules, relating to the creation of liability on instruments through signatures, will perhaps be replaced by electronic authentication procedures. For example, a requirement could be imposed that users of systems enter a personal identification code which would indicate the capacity in which the transaction is made.

95. See UNIFORM COMMERCIAL CODE § 3-404. Electronic “forgeries” will be perfect. There will, however, be degrees of security within systems which may be difficult to breach. For example, the “forger” may find a stolen plastic card of no use without knowledge of a personal identification code.

96. As a result, the instrument may be lost, destroyed, or stolen.

97. See UNIFORM COMMERCIAL CODE § 3-118(b).

98. See UNIFORM COMMERCIAL CODE § 3-115.

99. See UNIFORM COMMERCIAL CODE §§ 3-504, 3-505.

100. UNIFORM COMMERCIAL CODE § 3-104(1) discloses which “writings” are “negotiable instruments” for purposes of Article 3.

101. See UNIFORM COMMERCIAL CODE § 3-302.
electronic funds transfer systems. Plastic cards used in retail systems, for example, may vary in appearance to users so long as the card may be read by the terminals, and payment through a home terminal may occur without the use of any card or document whatever. In EFT systems, therefore, the relevance of the "formal requisites of negotiability" is questionable.

To take another instance where the applicability of present Code provisions is drawn into question, Articles 3 and 4 provide for the fact that checks may be lost, destroyed, or stolen. The forged endorsement of a thief, for example, will be inoperative, and the drawer, if he discovers the theft, may stop payment on the check. The clearest analogy to the stolen or lost check in an electronic environment is loss or theft of the plastic card by which accountholders initiate transactions. Analysis of Code provisions, however, indicates that there may be need for a dramatic difference in treatment for the two situations. Loss of a plastic card is a potentially catastrophic occurrence to accountholders, since the card may be the key to an entire bank balance. The check may be as well, but the Code establishes an absolute liability of the bank to pay according to the drawer's instructions, and only according to his instructions, absent his negligence. Drawers regularly release possession of checks, and the Code guards the integrity of that instrument as it leaves the drawer's control. By contrast the plastic cards are designed to remain in the accountholder's possession. Code sections dealing with stop payment orders appear to be the most appropriate analog for dealing with the lost card situation, rather than Code provisions dealing with lost instruments. The stop payment provisions, of course, may apply to situations where authentic instruments have been issued by the drawer as well as to situations where the drawer's signature has been forged.

Both the stop payment and lost instruments provisions erect a regime of vigilance, with especially burdensome requirements imposed on financial institutions, as if to induce accountholders to part with their checks. For financial institutions accepting electronic payment orders, formatting of the electronic transmission will determine the identity of the user, not a signature card on file for comparison with the drawer's signature on the check. Perhaps to fairly balance the in-

102. See Uniform Commercial Code §§ 3-603, 3-804.
103. Uniform Commercial Code § 3-404.
104. Uniform Commercial Code § 4-403.
106. Uniform Commercial Code §§ 4-303, 4-403.
terests of accountholder and financial institution, rules could be con-
structed which permit the institution to charge the customer's account
where properly formatted messages are received, unless (1) the accoun-
holder gives notice of a lost card after the accountholder should rea-
sonably have discovered the card's disappearance (a mandatory stop
payment, as it were), or (2) an unauthorized debit is due to the bank's
failure to observe commercially reasonable security precautions, such as
a failure to adequately protect against wiretaps or to produce cards
whose encoded information is not easily reproduced. This latter sug-
gestion imposes system security requirements, but releases the insti-
tution from liability where the established level of security is breached.
In addition, the financial institution should be required to issue a
periodic statement of account so as to permit accountholders to dis-
cover unauthorized debits. The Code currently contains no such
mandatory statement requirement.\textsuperscript{108}

An alternative set of rules could follow present rules regarding
unauthorized use of credit cards,\textsuperscript{109} placing a maximum absolute lia-
bility for unauthorized use of the card. However, such rules would
require modification in the case where an electronic payment order
is given without use of the card, such as from the home telephone, or
where lines of communication are intercepted through wiretapping.
At all events, under the Code at present it is within the accountholder’s
discretion to issue a stop payment order, and the bank bears absolute
liability to the accountholder for payment orders lacking authenticity.
These Code rules appear too harsh in an electronic environment in-
volving a card retained by the accountholder.

A final illustration of the uneasy fit of present Code provisions
with what promise to be the practices of EFT systems involves the
matter of payment. In an EFT system, funds can be transferred, and
payment thereby accomplished, instantaneously, rendering Code pro-
visions treating of conditionality of payment largely irrelevant.

The check is a conditional payment. The drawer engages that he
will pay the amount of the check to a holder or any indorser who
takes up the instrument,\textsuperscript{110} including, of course, the payee.\textsuperscript{111} Though
seldom discussed, it is a serious question just how the drawer is to “pay”
the payee if not by check. Of course, the drawer can use legal
tender and thus pay his payee.\textsuperscript{112} It is not just the drawer’s en-
gagement that makes the check conditional payment. Code section

\textsuperscript{108} \textit{But cf. Uniform Commercial Code} § 4-406.
\textsuperscript{110} \textit{Uniform Commercial Code} § 3-413(2).
\textsuperscript{111} \textit{See} Uniform Commercial Code §§ 3-202, 3-302(2).
3–413\textsuperscript{113} (setting forth that engagement) establishes, as it were, a fall back position or negative statement of the proposition that the check is conditional payment. That is, if the check is dishonored the drawer's liability to pay the payee or other holders remains; somehow the drawer must effect the payment.

The check is also conditional payment by reference to the underlying transaction out of which the payment arose. Wholly independent of the drawer's engagement as stated in Code section 3–413, it can be said that a check is a conditional payment if, upon dishonor of the item by the bank, the liability to pay on the underlying transaction remains. This is the rule of section 3–802.\textsuperscript{114} It is an interesting feature of the two-fold nature of the contingent or conditional discharge of obligations through use of checks that section 3–802(1)(b) provides that "[i]f the instrument is dishonored action may be maintained on either the instrument or the obligation."\textsuperscript{115} As further developed below, it is not quite clear where this pronouncement leaves the disappointed payee.

So the check is conditional payment which resurrects an obligation upon dishonor of the instrument. But the check is also a payment, since the rules relating to the conditional nature of the payment would make no sense whatever if the parties dealing with the item did not feel, in the successful, non-dishonored check payment transaction, that a payment had been effected. Curiously, while the Code provides that a check is a payment in the sense that the underlying obligation is discharged,\textsuperscript{116} there is no double-layering provision, comparable to section 3–413(2), which declares that the taking of a check is a "payment" by the drawer. There are provisions, of course, which authorize the debiting of a drawer's account by his bank when a check is presented in the collection process,\textsuperscript{117} and, similarly, the payee is given "provisional credit" when checks are forwarded for collection.\textsuperscript{118} Code section 4–213\textsuperscript{119} states that the payee's bank becomes "accountable for the item" when, speaking generally, the collection process has been completed. This provision is the double-layering counterpart to section 3–413(2), but it is stated in terms of the liability of an institution, not of a drawer. Conceivably, the Code could have stated the properties of a check as a payment and as a conditional

\begin{itemize}
\item \textsuperscript{113} Uniform Commercial Code § 3–413.
\item \textsuperscript{114} Uniform Commercial Code § 3–802.
\item \textsuperscript{115} Uniform Commercial Code § 3–802(1)(b).
\item \textsuperscript{116} Uniform Commercial Code § 3–802.
\item \textsuperscript{117} Uniform Commercial Code § 4–401.
\item \textsuperscript{118} See Uniform Commercial Code § 4–213(3).
\item \textsuperscript{119} Uniform Commercial Code § 4–213.
\end{itemize}
payment, solely in terms of the underlying transaction. Instead, obligations to "pay" on an instrument if dishonored, and to be "accountable" for an item, and to debit and "finally pay" an item are stated as well. It is indeed passing strange that the quintessential "payment" instrument, the check, is nowhere simply declared a "payment" when honored by the drawee.

The relevance of these "payment" rules is questionable in an environment where technologies make it possible to transfer credits among financial institutions and thus effect what users of the system will regard as payment. When the paying party initiates a transfer order that is processed "on line, real time," that is, instantaneously, the drawer and drawee will be dealing in "good funds" because no payment transaction is consummated which does not result in a credit to the payee. The conditional liability of the drawer would, therefore, fall away. Of course, for unsuccessful transactions the payee may still be looking to the drawer or paying party for payment, but in these cases it would not seem that the payments system compels a set of rules which re-establish a liability conditionally discharged, such as the rules of Code sections 3-413(2) and 3-802. The party entitled to payment has simply not been paid at all, the abortive payment transaction being a nullity, like reaching into a wallet and finding it empty. Even in the case of "offline" electronic payments, such as ACH transactions, there would be no formal occasion for establishment of the conditional payment liability. Although there is a delay between the time the paying party initiates the payment order and the time the payment information is received by the payee's financial institution, because the paying party, rather than the party being paid, initiates the funds information transfer flow, the dishonored, not sufficient-funds transaction would not arise — every payment which the payee receives is in "good funds." It may be postulated that any payments system may function without a secondary liability of the party paying, so long as the obligation to pay arising from the underlying transaction survives the aborted payment transaction. Apparently, the secondary liability of the drawer on check payments was viewed as essential to the paper-based check payment system, although it is certainly conceivable that a check payment system could operate without it. For purposes of the present discussion it is sufficient to note that EFT systems may function without the occasion for use of a secondary liability similar to that stated in Code section 3-413(2), because transfers will be in "good funds."

But what of the "payment" aspects of checks? Certainly users of an electronic payments system will regard themselves as having
been "paid" when they, as payees, receive an appropriate credit to their financial institution account, just as persons are today presumably satisfied with an increase in their checking account balances even though the balance represents only an unsecured, if usually federally insured, credit given to the banking institution. The above analysis of Code payment provisions indicates a need to clarify when a "final payment" has occurred at the drawer's institution, and when, after the payee's institution finally credits or is "accountable for" credits transferred to it from the drawer's institution for the credit of the payee's account, the payee has been "paid."

These problems serve only to illustrate the soundness of the earlier quoted abjuration "to [make] . . . practical issues . . . turn upon . . . actions of a tangible character" 120 or, to put the matter otherwise, to ask whether a proposed rule makes situational good sense, and not to have the question of the applicability of Articles 3 and 4 of the Uniform Commercial Code turn upon conceptual considerations and loose analogy. A touchstone of the inquiry seems to be the extent to which the Code's rules find their foundation in a paper based system where people are looking at, writing upon, and handling pieces of paper in paying one another.

A brooding presence hangs over the entire debate concerning the choice of appropriate rules for the governance of electronic funds transfers, even in the narrow area of Uniform Commercial Code "applicability." A very substantial percentage of the nation's checks are cleared through the facilities of the Federal Reserve System, 121 which has established a network of regional check processing centers to handle the volume of paper which each day flows through the system. This flood of paper is truly enormous. The provisions of Regulation J of the Federal Reserve System, 122 issued pursuant to the initial grant of authority over check clearing given the system upon its crea-

120. Uniform Commercial Code § 2-101, Comment. Several commentators have noted provisions of Articles 3 and 4 which seem inapposite or in need of revision in an electronic funds transfer environment. See, e.g., Dunne, The Checkless Society and Articles 3 and 4, 24 Bus. Law. 127 (1968); Odom, Alternatives to the Present Check Collection System, 70 Stan. L. Rev. 571 (1968); Penney, Articles 3 and 4 of the Uniform Commercial Code, 26 La. L. Rev. 259 (1966). Even the redoubtable Mr. Clarke has noted an "inapplicability" here and there. See Clarke, supra note 79, at 113.


tion in 1913, control a substantial percentage of the nation's paper based payments. As noted above, the Federal Reserve has recently proposed to expand this check clearing authority to cover interregional payments made by use of the Fedwire. This system permits payments to be made among Federal Reserve Banks and among member banks or other parties initiating payments. It seems clear that payments made through use of Fedwire would be subject to the requirements of federal, not state law. In effect, use of the system is conditioned upon acceptance of federal requirements imposed by the system.

Taking this a step further, Article 4 makes plain that checks are cleared, and the check payment system operated, through banks. These financial institutions are permitted to offer checking services by virtue of legislation which authorizes payment accounts. If these powers were removed, the current paper based check system would come to an abrupt halt. Doubtless the economic forces that drive our payments system would soon bring to life another group of institutions that would offer something like a payments system. Travel and entertainment cards, such as the American Express Card, offer something very close to a payments system, as do ordinary credit cards, for merchants regard themselves as paid at the time of purchase through use of these cards.

The payments system is presently dependent upon authorizing federal and state legislation that permits financial institutions to offer the financial services from which the check springs. If, therefore, the Comptroller of the Currency, as regulator of national banks, were to issue a series of rules governing payments made through systems established by national banks, including perhaps the point of sale situation, would the provisions of state law governing payments be displaced? If federally chartered or even federally insured institutions are offering financial services, may not the respective federal agencies issue rules incidental to those services governing the relationship of the accountholders and their institutions? At least as to the latter, the Federal Reserve has already done as much. The accountholder's relationship is now subject to restrictions regulating his access to demand or time deposits.

124. See discussion at Part I supra.
125. There is some evidence that consumers regard the credit card as the equivalent of a check for payment purposes. See White, The Effect of Bank Credit Cards on Household Financial Decisions, 1973 (unpublished doctoral dissertation, University of Wisconsin). I am indebted to Dr. Carl Gambs for bringing this study to my attention.
126. See 12 C.F.R. § 217 (1975) (Regulation Q).
The initial electronic funds transfer pilot project regulation of the Federal Home Loan Bank Board\(^{127}\) could be viewed as the first in a series of extensions of authority by federal regulatory agencies over the law governing payment transactions, with a resulting displacement of state law. The federal financial institutions could become like tar-baby: all parties wishing to pay or be paid through the system are stuck to the federal system, since these questions will involve the relationship between account holders and their financial institutions. As indicated in Part I, the case for federal control of EFT systems is not clear-cut. In light of the immediately preceding arguments, these doubts may not easily be overcome.

IV. Payment and Credit Purchases

An interesting feature of electronic funds transfer systems is that they make it possible to pay for purchases through access to either the purchaser's line of credit or the purchaser's account balance, for example, a demand deposit. The same two choices are available to purchasers today through use of credit cards or checks. The mechanics of check purchases are familiar to the reader and need not be discussed. Part III considered the body of law that establishes that a purchase by means of a check results in a payment to the seller. Some aspects of the mechanics of credit card purchases are less widely known.

In a bank credit card purchase the buyer presents a plastic card that serves as a means of identification. Merchants accepting credit card purchases inquire of a central information center to determine whether the proposed purchase is within the buyer's line of credit and whether the card presented has been reported lost or stolen. Both major bank credit card systems now provide, on a 24-hour, seven-day-a-week basis, a credit authorization service to merchants, typically by a simple telephone call. The credit card performs the physical function of making transfers at the sales counter of embossed account numbers to credit slips. A day's credit slips are presented by the merchant to a bank designated as one that will discount them. Upon presentation of the slips to the bank the merchant will be paid, usually through a credit to an account maintained by the merchant with the bank. The bank, in turn, will forward the slips to a processing center for routing to the bank that issued the card to the buyer and that carries an account receivable on the buyer-cardholder. Each of the two major bank credit cards has established separate facilities for assembling, sorting, and routing of these credit slips to the card issuing

\(^{127}\) 12 C.F.R. § 545.4-2 (1975).
bank, that is, the bank that extends the line of credit to the cardholder. Payment to the merchant is final where the merchant determines at the time of the transaction that the buyer is within his credit limit and that the card has not been reported lost or stolen. A merchant not receiving authorization for the transaction runs the risk of repurchasing slips from its bank.

As noted in Part III, the complex body of rules contained in Articles 3 and 4 of the Uniform Commercial Code, as well as Regulation J of the Federal Reserve System, are applicable to the processing of check payment transactions. Each step of the route of the written check payment order has received close legal scrutiny from state and federal authorities. In sharp relief, the credit card interchange systems, which make credit card purchases possible, are relatively free of complex federal and state legislative schemes, and a spirited legal debate has resulted from the gap in treatment. This lapse in legal attention is surprising in view of the volume of "credit card" credit, to use the Federal Reserve classification, which currently runs into the billions of dollars. With the significant exception of the federal $50 limitation of liability for cardholders, the rules allocating risks for processing credit card transactions have been left to private agreement.

One may term the processing of payments, or perhaps purchase transactions is a better term, whether by check or by credit card, a financial delivery system. One may turn this delivery system around and look end on at the "products" delivered through this system. The check product has several distinctive features: (1) it is regarded as freely available, not involving a privileged relationship with the financial institution; (2) costs of the service have not proved to be a significant issue with users; and (3) funds available through the service are subject to miscalculation or to kiting due to delays in processing payments. The credit card product stands on different footing: (1) it is not freely available, but depends upon the creditworthiness of users; (2) credit costs have proved a troublesome subject, since there are myriad ways for lenders to price credit services (which are, of

129. Comment, Bank Credit Cards — Contemporary Problems, 41 FORD. L. REV. 373 (1972), reviews the literature.
132. Article 4 of the Uniform Commercial Code also allows that its provisions may be varied by private agreement, but the Article 4 rules, nevertheless, provide a foundation for such agreements and may serve to provide rules for circumstances not covered in the agreement. See UNIFORM COMMERCIAL CODE § 4-103.
course, far more substantial than are check transactions costs); and (3) once authorized, a user may depend upon lenders to bill him for purchases, but revolving credit lines permit payments to be extended.

The present legal treatment of these two products is dramatically opposed to the legal treatment given the delivery system for those products. The credit card product, credit for consumer purchases, is subject to relatively strict legal control. The federal Truth in Lending Act requires disclosure of credit costs. There are, as well, pricing limitations in the form of usury laws also applicable to extensions of credit. By contrast the check product, a payment, is largely free of protective disclosure and legislative pricing schemes.

On the face of it, this is an extraordinary state of affairs. Check payments have little consumerist legal protection for the financial service rendered, the payment, but a complex body of law governs the delivery system, payment processing. Credit card purchases, by contrast, have far more consumer protective legislation for the financial service rendered, revolving credit, but little legislation governs the delivery system, the arrangements for processing credit slips, paying merchants, and billing cardholders that make the credit card system go. Electronic funds transfer systems raise the question of why these differences in legal treatment should continue to exist.

The differences in payment and revolving credit delivery systems conceivably could vanish from an EFT system. Customers will be able to buy goods with one plastic card and, at the time of the purchase, designate whether the transaction is to result in a debit to the customer's account or an extension from an existing line of credit. If the existing distinctions in legal treatment of check payments and credit card purchases are to be maintained, then it will be crucial to determine whether a given transaction is a payment or a credit transaction. Two cases have examined this problem, at least inferentially, but neither court directly confronted the question. In both cases the

134. The author is unaware of any state or federal disclosure or pricing limitations specifically applicable to check payments. The UCC does contain provisions which may be regarded as consumer protective in orientation, though not dealing with disclosure and pricing limitations, the stop payment power and prohibitions on disclaimers of good faith or ordinary care being the most prominent examples. See Uniform Commercial Code §§ 4-403, 4-103. For a general discussion of user impacts of EFT systems, see Shick, Some Impacts of Electronic Funds Transfers on Consumer Transactions, in The Economics of a National Electronic Funds Transfer System 165 (collection of papers presented at a conference sponsored by the Federal Reserve Bank of Boston, Oct., 1974).
courts were presented with the question whether payment by the buyer before or after receipt of goods determines when credit is extended. On first glance one would assume that when one pays for goods before their receipt a payment transaction is involved and, conversely, that when one pays for goods sometime after their receipt one has been extended credit. For some purposes, the case is not so simple.

In *Mourning v. Family Publications Service, Inc.*, the Supreme Court upheld the validity of the Federal Reserve's four installment rule, which requires compliance with Truth in Lending disclosure provisions where goods and services are paid for in more than four installments. In *Mourning* a buyer took magazine subscriptions which were to run for sixty months, but which were to be paid for, under an installment contract, within thirty months. The installment contract did not recite the total purchase price of the five-year subscription, the amount which remained unpaid after the initial remittance, and contained no indication of a finance charge or service charge, matters as to which disclosure could be required under the Act. The purchaser made the initial installment and then defaulted. The seller's threatened suit resulted, doubtless to his surprise, in the initiation of suit by the buyer seeking the statutory penalty for failure to make required credit disclosures. The Supreme Court sustained the buyer's position.

The Court examined in *Mourning* the Truth in Lending Act and its legislative history, concluding that the four installment rule was within the power of the Federal Reserve as the agency designated by the Act to fashion rules to implement its provisions. Even though section 121(a) of the Act only literally required disclosure where a finance charge is imposed, the Court upheld the Federal Reserve's rule, which is applicable to cases where no finance charge is imposed. The Court reasoned, in part, that lenders could too easily avoid the Act's protections by the simple expedient of not formally imposing a

finance charge. This was too glaring an exception to permit, and, per-
haps, the only precedential value of Mourning is the Court's deference
to the authority of the Federal Reserve to ferret out and determine
down when credit has been extended for the purpose of preventing "circum-
vention or evasion" of the Act's provisions.

But Justice Powell, in dissent, was not prepared to follow the
majority. In stating his position he squarely faced the question of
when credit is extended. According to Justice Powell:

[A] transaction is commonly understood to involve credit when
one party receives value in exchange for his unconditional promise
to pay the other party for such value in the future. The mere fact
that a party obligates himself in a contract to pay for goods or
services in installments over a period of time does not render the
contract a credit transaction . . . .

In his view it is not the fact of payment in installments but of payment
after receipt of goods which creates the requisite credit.

Another recent case takes the opposite tack. Rootberg v. Ameri-
can Express Co., a district court case decided shortly before Mour-
ning, raised the possibility that payment after receipt of goods and
services does not constitute credit for purposes of the Truth in Lending
Act. In Rootberg a cardholder of the defendant purchased goods and
services while traveling abroad. By agreement with American Express
the customer was to make payment in full upon receipt of periodic
statements of charges. American Express derived its income from
discounting transaction slips presented to it by merchants and from
an annual fee charged cardholders and not from finance charges im-
posed on cardholders. In finding for American Express the court
found that it was not a "creditor" under the Truth in Lending Act
and that disclosures were not required. "[F]ull payment is due upon
presentation of the bill," the court declared, and the defendant did not,
within the language of the Act, regularly " 'arrange for the extension
of credit for which the payment of a finance charge is required.' "

From the buyer's point of view the results in Mourning and
Rootberg are strange, since payment before receipt of goods is credit
under Mourning, but no credit is found in Rootberg when payment is
made after receipt, precisely the reverse of what one would, naively
perhaps, expect. Certainly these results are unacceptable in an electronic
environment where, at the time of the transaction, the buyer selects the

142. 411 U.S. at 383-84.
time of payment, that is, the debiting of his account at the time of the transaction or afterward (through repayments on credit extended).

Acceptable solutions for electronic funds transfers must be reached, whether of the payment or credit variety. In fashioning rules for electronic funds transfers, whether for product, as is the case for Truth in Lending disclosures, or for delivery systems, as is the case for the processing and payment rules of the Uniform Commercial Code, one certainly may question how appropriate uniform legal attention, if not treatment, may be for both product and delivery systems. Should credit funds transfers be exempt from process rules? Should payment products be subject to disclosure and pricing limitations? If the holding of plastic cards were to occur on a "privileged" basis, as are bank credit cards, reversing the assumption of ready availability existing for paper checking accounts, is the case for closer legal scrutiny advanced? Surely these are questions which deserve attention.

V. SAFETY AND SECURITY PROBLEMS

Of the utmost concern in a paperless funds transfer system is the possibility of fraud or theft on a pervasive scale. The potential for abuse is hardly fanciful. A few years ago the Federal Reserve in a letter to bank presidents warned:

Information recently received reveals that banks are being victimized by . . . bogus wire transfers of funds . . . .

. . . .

A recent situation involves an instance where a $2 million wire transfer (with valid code) was sent from a bank on the West Coast to a bank on the East Coast.¹⁴⁶

A. The Bank Protection Act

Technological and administrative measures are one answer to the problems of abuse practiced upon EFT systems. By developing adequate safeguards, such as using elaborate encrypting devices, "security kernels,"¹⁴⁶ and monitoring and reporting techniques, it can be made expensive and risky to enter the system. Statutory and regulatory law will play a significant role as prophylactic measures are developed. The Bank Protection Act of 1968,¹⁴⁷ the principal legislation in this

---

requires that the federal financial supervisory agencies promulgate rules establishing adequate security devices and procedures. Whether the provisions of the Act cover off-premises electronic funds transfer modules such as cash dispensing machines and communications devices of the sort used in the supermarket deposit-withdrawal system is an important question.

The Act applies generally to federally regulated banks and savings and loan associations, and nothing in the language of the Act, or in accompanying legislative reports or floor debate, makes reference to electronic funds transfer systems of the types discussed here. Nevertheless, the federal supervisory agencies have jointly promulgated regulations establishing security requirements for automatic tellers, units situated on chartered premises, in the bank lobby, or in an outside wall.

The Senate and House Reports permit the drawing of a few lines concerning the proper extent of this legislation as applied to various EFT systems. The Senate Report which accompanied the Act recites three reasons for enactment of the legislation: (1) the increasing financial losses resulting from burglaries, robberies, and the like; (2) the expenses of investigating such crimes; and, most importantly, (3) deaths suffered by bank employees during bank holdups. It is apparent that, except in unusual circumstances, crimes involving automatic teller units will generally not involve the third problem, though some risk of death or injury to an innocent person will exist when these units are serviced. But note that employees and customers are protected only where the malefactor seeks funds of the financial institution. Such a policy is consistent with the bank robbery statute and related provisions. A person who has just received his cash disbursement must look to state criminal sanctions to protect him from violations of his person by those seeking to obtain cash in his possession. For the purpose of the Bank Protection Act, a sufficiently secure automatic teller unit is satisfactory.

Matters are no less intriguing where non-bank personnel participate in offering services on non-bank premises. In the supermarket remote deposit and withdrawal system, supermarket employees operate

---

148. At common law, bank officers, and presumably officers of other financial institutions, have a duty to safeguard funds in their custody. 1 Michie, Banks and Banking ch. 3, § 43 (1973).


152. See text accompanying notes 159-60 infra. Note that the question of the proper allocation of federal and state authority is again raised.
communications devices and deal in supermarket cash. Arguably, the presence of the system would increase the amount of cash which the supermarket must keep on hand in order to service customers of the financial institution, though the cash on hand could in fact, be reduced through use of the system and this increase could be related to financial institution liability. Assuming that the presence of the communications unit increases cash on hand requirements, is the supermarket any different from the individual customer with cash in his pocket after use of a cash dispensing machine? One may argue that if the grocery store were robbed, an agreement with the financial institution could stipulate that the loss fall on the supermarket rather than on the financial institution, and therefore, no federal bank robbery would have occurred. Whether robberies of retail locations containing financial institution communications devices involve a federal bank robbery is an interesting question which will doubtless receive judicial or legislative resolution. The outcome will importantly affect the degree of supervision of retail locations by federal bank regulators.

Presented, then, is the question of how far the regulatory agencies may proceed in requiring the establishment of security devices and procedures to protect cash in the hands of participants in or users of EFT systems. Indeed, the supermarket system appears to be far closer to the "true" EFT system, despite the intervention of cash, than might at first be suspected, since under federal law the funds which are the subject of a malefactor's greed appear to be there, hidden away in accounting entries made at the financial institution, rather than at the place where cash is dispensed to financial institution customers. The same observation may be made regarding the paper check system, a system which shifts bank balances to make payments. These new systems may require, then, a refinement of the ambit of existing regulatory control over entities subject to their jurisdiction. It is clear that electronic funds transfer systems do not neatly fit into the present separation of retail financial transactions from federal banking agency control.

B. Criminal Sanctions

The previous discussion has been predicated upon the fact that the technological and administrative measures are taken, at least in part, because the criminal justice system forbids the performance of

---

153. This could occur, for example, if customers who usually "cash" paychecks at the supermarket instead deposit all or a portion of the paycheck in a financial institution through use of a remote deposit system.
acts which it is the object of these technological measures to obstruct, that neither federally required protective procedures nor federally imposed criminal sanctions may out-distance the other. Literature already discusses some of the varieties of criminality that the introduction of electronic data processing affords.\footnote{See generally D. Parker, S. Nycum, & S. Oüra, Computer Abuse, Nov., 1973 (published by the Stanford Research Institute).}

There are at least four areas where the intervention of protective criminal law sanctions will be appropriate: (1) unauthorized access to a customer's account by means of the theft or reproduction of an access "key," such as the plastic card, given the customer; (2) unauthorized access to accounts by personnel manning access terminals, such as the store employees operating the supermarket remote deposit-withdrawal system; (3) unauthorized access to communication lines between remote terminals and information storage areas, such as a financial institution's central processing unit (in short, wire-tapping); and (4) unauthorized access at the central processing unit site by employees or outsiders.

The Federal Consumer Credit Protection Act currently makes criminal the use of "any counterfeit, fictitious, altered, forged, lost, stolen, or fraudulently obtained credit card."\footnote{15 U.S.C. § 1644 (1970).} This prohibition, however, contemplates the use of an instrument to obtain goods or services on credit and not the use of an instrument in a transaction which is regarded as effecting a payment, or a deposit or withdrawal, from an account maintained at a financial institution. A similar prohibition applicable to non-credit transactions may be necessary.

For operators of EFT terminals it will be important to decide whether they are "in" or "out" of the bank system for purposes of the application of federal criminal sanctions against those who trifle with federally regulated financial institutions, since federal law distinguishes between "insiders" and "outsiders." Sections 656 and 657 of Title 18, for example, make theft, embezzlement, and the like criminal where the perpetrator is an officer, employee or is "an . . . agent . . . of, or connected in any capacity" with federally regulated banks and savings and loan associations.\footnote{18 U.S.C. § 656 (1970) ; 18 U.S.C. § 657 (1970).} This "insider provision" has been held to reach an employee of a corporation in which a bank has an equity interest.\footnote{United States v. Edick, 432 F.2d 350 (4th Cir. 1970).} Cases defining "money," "funds," and "credits" for purposes of insider crime will probably require revisitation in attempting to apply the sanctions of these two sections to EFT
systems. It may be supposed that these provisions apply as well to malefactions at the point of information storage, which may be, but need not be, at a financial institution's central processing unit. By parity of reasoning, "distributed information" systems, involving storage of information at locations remote from the central processing unit, would seemingly likewise find the protection of these provisions.

As an example of outsider crime, the bank robbery statute, which applies to federally regulated banks, savings and loan associations, and credit unions, applies to whoever forceably takes or takes with intent to steal property, money, or anything of value of the specified financial institutions. It seems, then, that where outsiders are involved it will only be necessary to find the "tak[ing] . . . [of] any . . . thing of value," but for insiders the required connection with the bank or savings and loan association will have to be shown.

Interception of communications between points in the system, such as between the point of purchase and the central processing unit, or the unauthorized entry of information between points might come within the ambit of protections afforded by Title III of the Omnibus Crime Control and Safe Streets Act of 1968, although by indirection. One of the purposes of this legislation is to protect the privacy of wire and oral communications. Section 2511(1)(a) makes it a federal crime to willfully intercept any wire or oral communication. "Intercept" is defined, in relevant part, as the "aural acquisition of the contents of any wire . . . communication through the use of any electronic, mechanical, or other device." Since identifying and authorizing information will not be transmitted in a form understandable to the human ear, it is questionable whether this prohibition on "aural" acquisition can be overcome, even assuming only the "privacy" of communications and not their unauthorized use or entry is all that need be protected. By analogy the criminal sanctions imposed by sections 656, 657, and 2113 could, perhaps, be applied to interceptions.

---

158. As to the meaning of "credits" within 18 U.S.C. § 656, see, e.g., Theobald v. United States, 3 F.2d 601 (8th Cir. 1925); as to "funds," see, e.g., United States v. Smith, 152 F. 542 (W.D. Ky. 1907).

There are, of course, other criminal prohibitions which may require modification, including 18 U.S.C. §§ 471-509 (1970) (counterfeiting and forgery) and 18 U.S.C. § 1002 (1970) (false entries). This is obviously not an exhaustive listing.


160. Id.


of wire communications with intent to commit larceny, and the like, rather than placing reliance upon the Safe Streets Act, which looks to the protection of privacy rather than to the protection of the integrity of financial institution operations (for insiders) and the property entrusted to them (from unlawful access by outsiders). Finally, it does not seem that protection of information storage areas presents any unique problem not already discussed.

VI. AN ANTITRUST SOUNDING

For financial institutions the competitive implications of the development of electronic funds transfer systems are the most troubling. Indeed, as mentioned before, the competitive challenge of rival banking institutions, and of the thrift industry to commercial banks, is the primary stimulus to the growth of EFT systems. The purpose here is to take a sounding of antitrust law to ascertain what, if any, special considerations may be applicable to these systems. The threshold question of the proper role of competition in the regulation of financial institutions was apparently settled by the Supreme Court's famous dictum in United States v. Philadelphia National Bank.\textsuperscript{165} "The fact that banking is a highly regulated industry critical to the Nation's welfare makes the play of competition not less important but more so."\textsuperscript{168} Financial institutions such as banks and savings and loan associations enjoy no general immunity from the antitrust laws by virtue of their status as federally regulated institutions,\textsuperscript{167} nor do they enjoy a statutory exemption, despite certain instances where statutory language seems to indicate one.\textsuperscript{168}

\textsuperscript{165} 374 U.S. 321 (1963).

\textsuperscript{166} Id. at 372.

\textsuperscript{167} Left aside are questions of "workability" of regulatory restrictions consistent with antitrust requirements under Silver v. New York Stock Exchange, 373 U.S. 341 (1963), and the operation of the primary jurisdiction doctrine in this context. For discussion of primary jurisdiction, see generally 3 K. Davis, Administrative Law Treatise §§ 19.01–09 (1958, Supp. 1970).

Such special EFT antitrust considerations as there appear to be derive from two functional requirements of these systems: the necessity for inter-institutional clearing, and the apparent limitation that at each authorization end point in the systems there be only one terminal. To review briefly the several operational settings of electronic funds transfer services, there are (1) an automated clearing house, serving as a switch that routes credit and debit funds information; (2) a terminal in a retail establishment used to make payments at the point of purchase or to effect deposits or withdrawals (without payments occurring); (3) a terminal in the customer's home used to make payments to creditors via telephone; and (4) an automated teller or cash dispensing machine installed on the premises of a financial institution or in a shopping mall, a factory, or an office building.

It will be useful to dwell briefly on the manner in which these EFT services are delivered. As already noted, an automated clearing house is both an apparatus and an institutional arrangement. The apparatus is a switch that routes information from one location to another. This switch may be operated by one institution or by many and may service any number of financial institutions. The nationwide Fedwire is an example of an automated clearing house operated by one institution, the Federal Reserve System, but serving all banks which are members of the Federal Reserve System. Automated clearing houses have also been established at the regional level by groups of banks, and serve both members and non-members of the clearing house. Finally, financial institutions and "service bureaus" may provide data processing services to one or more financial institutions and may similarly have a switching function. All three types of "switching" apparatus may form a foundation for inter-institutional clearing of payment transactions.


169. See text accompanying notes 4-8 supra.

170. See text following note 7 supra.
The retail and home terminals and automated tellers may or may not be end points for an inter-institutional clearing switch. Retail deposit and withdrawal transactions, which involve clearing with a retail balance maintained at the accountholder's financial institution, need not involve any inter-institutional clearing whatever. Early remote service units established by federal associations under a FHLBB regulation involve only this limited, intra-institutional retailer-accountholder clearing. The "automated teller" serves currently as a deposit-withdrawal facility involving no inter-institutional settlement. It is the assumption of the financial industry that for each service location, retail, home, or automated teller, there may be only one terminal, since owners of the locations at which these will be located will not tolerate row upon row of terminals, one for each financial institution.

It should be evident that a competitive advantage may accrue to financial institutions operating an automated clearing house through simple denial of access to a switch, or granting access only at prohibitive cost. Of course, ouster from a switch may or may not prove a competitive disadvantage; conceivably an ousted group of financial institutions could establish a rival switch and clearing arrangement and encourage as many customers as possible to bank with the ousted institutions. That several varieties of switching facilities currently exist argues that just such a development is possible.

The competitive impact of an automated clearing mechanism will vary not only with the number and size of the institutions clearing through an apparatus (and the account balances held by those institutions), but also with the number and location of end points. Retail terminal development (with retail account balances at the institution establishing the end point), whether for deposit, withdrawal, or payment of the retailer, may provide a significant competitive advantage quite apart from the clearing network. The home terminal lies in an analytical position between the automated clearing house and the retail terminal, since the home user will wish to pay a number of payees, who may or may not bank at the same institution at which the individual having the home unit maintains an account. The home unit, therefore, may be dependent for its competitive advantage upon membership of the financial institution in a clearing network.

At this time the competitive impact of the twofold requirements of EFT systems (as currently understood), the necessity for clearing and for limited end points, is quite speculative. That different configurations of EFT services may have quite different competitive significance is evident. In expressing its views on the antitrust im-

171. See note 60 and accompanying text supra.
plications of EFT systems, the Antitrust Division of the Department of Justice has assumed that the regional bank operated clearing house may constitute an essential facility. 172 This assumption bears analysis. The essential facility doctrine, as derived from Associated Press v. United States 173 and other cases, is a theory of encasement which grants access to a venture by business entities harmed by their exclusion from it.

United States v. Terminal Railroad Association 174 is an early instance of the application of the essential facility doctrine. 175 In that case an association of railroads formed a terminal company which acquired control of the sole means of railroad transport across the Mississippi River at points near St. Louis. Prior to acquisition, the two bridges and a ferry service had been separately owned. According to the Court, the geographical and topographical situation of St. Louis was such as to make it

as a practical matter, impossible for any railroad company to pass through, or even enter St. Louis, so as to be within reach of its industries or commerce, without using the facilities entirely controlled by the Terminal Company...

The physical conditions which compel the use of the combined system by every road which desires to cross the river... is the factor which gives greatest color to the unlawfulness of the combination as now controlled and operated. 176

The Court went on to recite a number of offensive provisions in the agreement establishing the terminal company — access conditioned upon unanimous consent of the ten owners of the company, an obligation among the parties to use only the facilities of the terminal company, pricing practices, and other matters. The Court ordered the defendants to revise their agreements in accordance with a principle

175. It is here assumed without discussion that the “essential facility” doctrine is a distinct antitrust analytical category, such as “joint venture” analysis seems to be after United States v. Penn-Olin Chemical Co., 378 U.S. 158 (1964). See Pitofsky, Joint Ventures Under the Antitrust Laws: Some Reflections on the Significance of Penn-Olin, 82 Harv. L. Rev. 1007 (1969).
176. 224 U.S. at 397-98.
of equal access upon reasonable terms. Failing such renegotiated agreement, the Court declared its intention to "make such order and decree for the complete disjoinder of the three [terminal] systems, and their future operation as independent systems."\(^{177}\) The company's practices were found to be both an illegal restraint of trade under section 1 of the Sherman Act and an attempt to monopolize under section 2.\(^{178}\) In reaching its decision the Court took care to observe that the combination before it would not, of itself, have been unlawful "if it were what is claimed for it, a proper terminal association acting as the impartial agent of every line which is under compulsion to use its instrumentalities."\(^{179}\)

In *Associated Press* the government successfully asserted, *inter alia*, that by-laws of Associated Press, which prohibited members from selling news to non-members, required members to furnish their news to AP to the exclusion of non-members, and granted members powers to block admission to AP by competing publishers, violated sections 1 and 2 of the Sherman Act as illegal restraints of trade and attempts to monopolize. The Court enjoined the defendants from observing the restrictions on admission to AP membership and temporarily enjoined the prohibitions on use of AP news by non-members and on furnishing news to non-members until the offending membership admission practices were cured.

The essential facility doctrine, as derived from these cases, has at least two significant aspects. First, a violation of the Sherman Act (as an illegal restraint of trade or an attempt to monopolize) is made out where control of a significant resource, for example, a news gathering organization which "is a vast, intricately reticulated organization, the largest of its kind, gathering news from all over the world, the chief single source of news for the American press, universally agreed to be of great [sic] consequence,"\(^{180}\) is coupled with exclusionary practices having the effect of restraining competition. Secondly, the relief granted in such cases is to order the offending parties to devise rules of non-discriminatory access to the facility, failing which more severe relief, such as dissolution of the facility, may be imposed.

Electronic funds transfer systems are candidates for essential facility treatment, and the same could be said of the present paper based check clearing system. Under the paper based check clearing

\(^{177}\) *Id.* at 412.


\(^{179}\) 224 U.S. at 410.

system, access to drawers' balances by all who come forward to the
drawee bank has been assumed. Indeed, it is the duty of the drawee
bank to pay checks properly presented, whoever the payee or holder
and wherever he may bank. If a number of banks operated a clearing
system for paper checks and denied access to balances to outside
banks, a case could be made for essential facility treatment. Local
clearing house associations now processing paper checks are essential
facilities, and were a clearing house to deny access to some of the
banks in a given locality, a court might well order that the barred
banks be given access. In theory each payee's bank could individually
present the payee's check to the drawee bank, check-by-check, institu-
tion-by-institution. In theory, too, (questions of the requirements of
state law aside) a drawee bank could refuse to honor checks presented
by certain banks, whether the check had been processed through a
local clearing house association or not. But a drawee bank is unlikely
to do this because to do so diminishes the value of the account to the
denying bank's customer, the drawer. The customer wants every
payee to be able to access the account. The commercial bank demand
deposit and the associated local clearing house association, then, make
a good case for application of the essential facility doctrine because (1)
by law the drawee bank must honor checks without distinction as to
identity of payee, holder, or depositary institution; (2) as a practical
matter each city may only support one clearing house; and (3) denial
of access to account balances will in all likelihood work a significant
competitive disadvantage on excluded banks.

The introduction of new technologies has made manifest the
competitive advantage of access, through clearing, to an institution's
balances. The nub of the debate over access to bank operated regional
automated clearing houses is not, however, access to the clearing house
facilities, as the Department of Justice seems to maintain, since
regional facilities can be duplicated easily at present volumes. The
question is rather access to the balances of those institutions which
are presently operating a payments system, the commercial banks. It
is access to the commercial bank demand deposit account which is the
essential facility rather than the regional bank operated automated
clearing house, because the present structure of the payments mecha-
ism makes access to these balances a prerequisite to a payments
mechanism, a self-contained apparatus and underlying institutional
structure for the exchange of liabilities between drawee and depositary
(the payee's) bank. If an employee's financial institution may not
receive an employer's payment through an ACH, it is as though the

181. See Uniform Commercial Code § 4-402.
employee's institution were barred from presenting a check to the employer's bank for payment, if the ACH is the only practical means of access to the employer's account. Similarly, the financial institution's customer must be able to pay any designated party, wherever that party banks, or the customer's bank suffers a significant competitive disadvantage, at least compared to the check payment system.

If a strong case exists for declaring the institutional balance an essential facility, a weaker case is made for regional automated clearing houses. There are in-place facilities which could act as competing switches, and a given community may be able to support several, as they do at present. Further, so long as a financial institution and its customers have access to the balances of other institutions, whether that access be gained through Fedwire, a regional bank operated automated clearing house, or a service bureau, denial of access to one clearing mechanism need not impose a competitive restraint. Moreover, too early a declaration that a switch constitutes an essential facility may prove a disincentive to the development of competitive clearing networks.

The retail terminal will have significance to customers as a convenient location for deposits and withdrawals and as a location where payments may be made to the retailer. To be sure, a financial institution may obtain a competitive advantage by establishing retail terminal locations, but this advantage need not have as significant a competitive impact as denial of access to account balances, or denial of clearing of all items originating at a given institution (to all balances at the denying bank) since access may be had through the clearing process. Moreover, other means of payment by customers not banking at the institution installing the retail terminal, and other locations for deposits or withdrawals for non-customers of that banking institution, are possible. In sum, a less compelling case for essential facility treatment is made for the retail terminal. Still weaker is the case for the automated teller functioning as a deposit and withdrawal facility where any number of sites may provide locational convenience for customers of financial institutions denied access to an established automated teller. Finally, the home unit makes the least compelling case for essential facility treatment, since it will be access to the customer's balance rather than the home unit which will be of importance to competing financial institutions. Such at least are the conclusions to which the two-fold assumption concerning the functional requirements of EFT systems appears to lead.

As previously discussed in Part I concerning federal control over EFT systems through branching and payment powers limitations, the
Court in the *Dickinson* case\(^{182}\) broadly interpreted section 36(f) of the National Bank Act to include considerations of competitive advantage. If, as the Court said in *Philadelphia National Bank*, "the play of competition [is] not less important but more so"\(^{182}\) in the field of regulated financial institutions, then the gloss placed on a section 36(f) branch may be in need of reexamination. The Court assumed in *Dickinson* that a competitive advantage would accrue to a national bank offering remote deposit facilities. It might be more appropriate to provide state chartered institutions with an opportunity to respond to a competitive advantage given a national bank through establishment of new facilities rather than to blunt the competitive challenge posed by the national bank at the outset. State banks are conceivably capable of offering other services which would offset the competitive advantage posed by the new facility. Actions by national banks may prompt state regulatory authorities to reconsider the legality of proposed services under existing regulations and statutes, or the state legislature may be encouraged to alter the underlying statutory scheme. If the judgment of state authorities is that the state banks are not to be permitted to engage in the activity, even after the national bank shows the existence of a market for the service offered, only then should the Court declare the facility to be outside the authority of national banks as an impermissible disturbance of the principle of "competitive equality" of section 36(c) as interpreted in *Walker Bank & Trust*. The result of the *Dickinson* holding is to give the competitive initiative to state chartered institutions to the exclusion of national banks. The principle of competitive equality does not seem to command such a result, especially in the absence of a proven showing of competitive advantage for national banks.

VII. Privacy

The literature on the protection of citizen privacy is enormous, the outstanding general academic contributions being books by Miller and by Westin and Baker.\(^ {184}\) A good deal of activity has recently taken place at the federal level, including a study by the Department of Health, Education and Welfare on computers and the right of

---

182. *Dickinson* is discussed at text accompanying notes 34-42 *supra*.

183. 374 U.S. at 372.

privacy with suggestions for a code of fair information practices,\textsuperscript{185} issuance of recommendations for the protection of citizen privacy by the President’s Domestic Council Committee on the Right of Privacy,\textsuperscript{186} and the enactment of legislation governing access to government held information and creating a two-year Privacy Protection Study Commission.\textsuperscript{187} A principal conclusion of the HEW study was that

application of computers to record keeping has challenged traditional constraints on record keeping practices. The computer enables organizations to enlarge their data-processing capacity substantially, while greatly facilitating access to recorded data . . . .\textsuperscript{188}

Simply put, computer technology makes it vastly easier to gather, store, and retrieve information. The difference as compared to traditional quill and paper records may be so great as to make the difference one of kind and not of degree. Computer technology means more information will be kept and more information will be retrieved, simply because both tasks will be far less burdensome.

No attempt will be made here to exhaustively treat the law of the privacy of bank records. There is some case law to the effect that there is an implied condition in the agreement between bank and customer that information confidentially held will not be disclosed.\textsuperscript{189} A recent United States Supreme Court decision importantly affects the privacy of financial records maintained by financial institutions. \textit{California Bankers Association v. Schultz}\textsuperscript{190} is a case testing the constitutionality of the reporting and record keeping requirements imposed by the Bank Secrecy Act of 1970.\textsuperscript{191} To assist the government in its law enforcement activities, especially with respect to the activities of organized crime and the maintenance of “secret Swiss bank accounts,” the Act requires “the maintenance of records, and the making of certain reports, which have a high degree of useful-

\textsuperscript{185} H.E.W., REPORT OF THE SECRETARY’S ADVISORY COMMITTEE ON AUTOMATED PERSONAL DATA SYSTEMS: RECORDS, COMPUTERS AND THE RIGHTS OF CITIZENS passim (1973) [hereinafter cited as RECORDS, COMPUTERS AND THE RIGHTS OF CITIZENS].

\textsuperscript{186} See Press Release, Domestic Council Committee on the Right of Privacy, July 10, 1974.


\textsuperscript{188} RECORDS, COMPUTERS AND THE RIGHTS OF CITIZENS, supra note 185, at xix.


ness in criminal, tax, or regulatory investigations or proceedings.' 192 In addition, financial transactions are to be reported to the government by individuals as well as by financial institutions.193 The Secretary of the Treasury is empowered to issue regulations implementing the Act's provisions,194 and has done so.195 In short, the Bank Secrecy Act of 1970 is a broad charter for the required preservation by financial institutions of the nation's financial transactions and their disclosure to government officials.

A bank, bank customers, a banking trade organization, and a civil liberties group challenged the constitutionality of the Act's requirements. A three judge court upheld its record keeping requirements, but struck down the reporting requirements applicable to domestic financial transactions as an unreasonable search and seizure under the Fourth Amendment.196 On appeal to the Supreme Court the constitutionality of the Act and of regulations issued thereunder were upheld in their entirety. The essential thrust of the opinion was three-fold. First, record keeping and reporting requirements could be imposed on both financial institutions and individuals as a permissible means for Congress to prohibit criminal trafficking in negotiable instruments moving through interstate and foreign commerce. Secondly, while "there is no denying the impressive sweep of the authority conferred upon the Secretary of the Treasury,"197 the existing requirements were reasonable in their scope. Thirdly, as to any disclosure in addition to the present reporting requirements, protections against improper disclosure would be found in the Congressional intent, but not in any express statutory language, that "access to records is to be controlled by existing legal process."198 The Court thus left to another day the question whether particular record keeping or reporting requirements which might thereafter be imposed by the Secretary, or particular requests by government authorities for recorded information, could violate constitutional guarantees. In reaching its decision the Court seemed unable to satisfactorily distinguish the record keeping and reporting requirements already imposed as a result of the federal taxation system, a system requiring every individual to report

197. 416 U.S. at 30.
198. Id. at 52.
financial transactions.\textsuperscript{199} For the Court the Rubicon had long ago been crossed by the passage of federal taxation legislation; the Bank Secrecy Act simply provided a supplementary reporting system. Protection of institutions and individuals would be left to particular case settings yet to come, as with federal tax records. Yet the Court took special pains to emphasize the requirement that access to information would be governed by "existing legal process," a requirement, as already noted, not expressly stated in the language of the Act.\textsuperscript{200}

\textit{California Bankers Association v. Schultz} is disturbing because the Bank Secrecy Act, as upheld by the Court, seems to illustrate a principal tenet of the HEW study — where information is kept it will be sought. In effect the Bank Secrecy Act capitalizes upon the record keeping potential of the banking system, even though those records may be kept for reasons entirely foreign to the law enforcement activities of the government. The further computerization of bank records will only accelerate this tendency by making information more readily available. It is clear that with modest effort the record keeping and reporting requirements can be applied to electronic funds transfer transactions to come.\textsuperscript{201} Moreover, electronic funds transfer systems will make it possible to secure great detail as to the place, time, and character of financial transactions. Indeed, by taking full advantage of burgeoning uniform product code grocery store scanners, individual shopping lists down to the last can of peas may be available for government inspection through electronic funds transfer purchases. Such detail for purchase transactions is, of course, unavailable where purchases are by means of paper checks.

There are two troubling aspects to this implosion of financial transactions into computer memory banks. On the one hand, the privacy issue is usually treated as one concerned with the need to protect confidential information because of the potential embarrassment which disclosure would bring or because of the commercial value of the confidentially held information. These values are important and deserve protection at least on a par with the legal protection given torti-

\begin{itemize}
\item \textsuperscript{199} INT. REV. CODE OF 1954, § 6001.
\item \textsuperscript{200} United States v. Bisceglia, 95 S. Ct. 915 (1975), explores the "legal process" requirement in the context of a "John Doe" summons issued by the Internal Revenue Service.
\item \textsuperscript{201} As to record keeping, the Act requires maintenance of records "of each check, draft, or similar instrument." 12 U.S.C. § 1829b(d) (1970). Reports are to be filed respecting transactions "if they involve the payment, receipt, or transfer of United States currency, or such other monetary instruments as the Secretary may specify." 31 U.S.C. § 1081 (1970).
\end{itemize}
ously induced emotional trauma\textsuperscript{202} or tortiously appropriated business secrets.\textsuperscript{203}

But of far greater concern is the potential for political control which the recording of every financial transaction would bring. This potential is all the more apparent where a law seeks to guarantee access to that information by government officials. Under the Bank Secrecy Act of 1970, every financial transaction made through a financial institution is potentially subject to governmental superintendence where records of such transactions "have a high degree of usefulness in criminal, tax, or regulatory investigations."\textsuperscript{204} As Justice Douglas observed in \textit{California Bankers Association v. Schultz}:

In a sense a person is defined by the checks he writes. By examining them the [government] agents get to know his doctors, lawyers, creditors, political allies, social connections, religious affiliation, educational interests, the papers and magazines he reads, and so on \textit{ad infinitum}. . . .[T]hese other items will enrich that storehouse and make it possible for a bureaucrat — by pushing one button — to get in an instant the names of the 190 million Americans who are subversives or potential and likely candidates.\textsuperscript{205}

Yet, if we are not to become a nation of Luddites, smashing the machines which relieve human beings of the labor associated with the processing of billions of payment transactions occurring yearly, surely there must be a practical middle ground or a series of accommodations to the requirements of legitimate law enforcement activities and the equally legitimate expectation of the privacy of one's financial transactions. The majority in \textit{California Bankers Association v. Schultz} seems justified in its decision to await the context of particular requests for information before deciding upon which side of the constitutional scales a given request for information falls. The Privacy Protection Study Commission may prove a valuable forum for the weighing of these values in the context of particular problems and systems.

Mildly paranoic twentieth century man already wonders of the extent of surveillance activities by his many and manifold governments. This is a fear more solidly founded than the fear of falling elevators, another modern malady. A nationwide financial information system, however beneficial in other respects, can be a significant threat to our liberties, one requiring effective controls.

\textsuperscript{202} See, e.g., \textit{Restatement (Second) of Torts} §§ 46, 312, 313, 436, 436A (1965).
\textsuperscript{203} See, e.g., \textit{Restatement of Torts} § 757 (1939). Conceivably customer lists obtainable through payment transactions with a merchant would be protected.
\textsuperscript{205} 416 U.S. at 85 (Douglas, J., dissenting).
VIII. Conclusions

Electronic funds transfer systems will involve a number of players, far more than have been previously recognized; there will be a greater variety of financial institutions participating: banks, savings and loan associations, mutual savings banks, and other exotica. Unregulated, non-financial institutions will build upon their existing electronic data processing capability to offer services much akin to funds transfer services. Examples are the travel and entertainment card services and major retailers who let credit purchases substitute for payments by cash or by check. The development of an electronic funds transfer system, then, is far more fluid and complex than has previously been recognized.

For the financial institutions, changes in payment patterns will upset the current array of legislative controls over their competition *inter se* and could fundamentally alter the present financial structure, making it into one in which consumers play an increasingly important role in the shaping of financial services.

The strained constructions of Articles 3 and 4 of the Uniform Commercial Code should be abandoned. The law of paper transfers should receive a quiet, decent burial, to be replaced by a body of law based upon the practices of a new marketplace, one in which communications issues will play a part. It may well be difficult to sharply distinguish between payment and credit, and a new structure of protections, premised upon the degree of control which financial institutions have over their users, may appear.

Enforcement of antitrust policy will play a central role in developing systems. Perhaps it has been uncritically assumed that, as a *fait accompli*, “bottlenecks” and “essential facilities” will exist. Competitive development of EFT systems should be more vigorously sought.

And finally, government must be sensitive to the potential for the erosion of human dignity and freedom which a nationwide system of financial communications could engender. Safeguards that do a creditable job of making those who police themselves subject to policing by the public must be established.