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Toward a Less-Check Society

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TOWARD A LESS-CHECK SOCIETY

I. Introduction

A. The Less-Check Model

The time: 1984; the place: Midtown, USA; the setting: a typical day in the lives of Mr. and Mrs. Jim Jones using an electronic funds transfer system (EFTS)\(^1\) in place of our present paper-based system.

Mr. and Mrs. Jones arise at their usual time. Mrs. Jones prepares breakfast as her husband gets ready for work. After breakfast, Mrs. Jones drives her husband to work and then decides to go into the city to do some shopping. At the supermarket, the clerk rings up her bill: $1.31, $1.92, $.57 \ldots \text{ "Will that be cash or electronic transfer?" \text{ "Make it electronic transfer please, and have it charged."} \text{ Mrs. Jones then takes out her plastic identification card and hands it to the clerk who inserts it in an apparatus located behind the counter. Mrs. Jones proceeds to push a number of buttons—her confidential code—in a small, inexpensive input terminal which in turn is connected through the supermarket's telephone to a computer system located miles away. Instantaneously, her record on the computer is interrogated, her credit rating computed and a rating determined and the clerk informed as to the results by means of a voice answerback system or signal device at the counter. Had Mrs. Jones decided to make a "cash purchase," she would have presented the card to the clerk who would have inserted the card in an electronic input apparatus which would have read the card and established immediately and automatically an electronic communication with her bank. If there was money in her account sufficient to cover the transaction, an indicator on the card-reading apparatus would have instructed the clerk to complete the sale. The clerk would then have activated the device causing the amount of purchase to be automatically deducted from Mrs. Jones' account and added to the supermarket's account.}

When Mrs. Jones arrives at home, she discovers that the mailman has left a couple of bills which she decides to pay. She uses her touch tone telephone, first to contact the bank's computer, and next to transfer funds from her account to those of her creditors. If Mrs. Jones decides that she is "tired" of paying her monthly bills in this fashion, she may make arrangements with her bank whereby the bank's computer will automatically pay all bills for purchases or services rendered by and for the Joneses. In this way, those payments that occur periodically, such as rent, mortgage, insurance, utility bills, etc., will be made auto-

---

\(^1\) "Electronic funds transfer system" means transferring information about fund transfers over communication networks, starting with input from a terminal at the point of sale and culminating in a computerized bookkeeping transaction at some central fund transfer computer station, which in most cases, we assume, will be at a banking institution.

"Fund transfer" means the movement of funds from the account of the consumer to the account of the merchant, or from the buyer to the seller, or from the employer to the employee.

matically. As for nonperiodic expenditures, the amount of purchases which were charged during the month will all be recorded on tape. On the the first day of every month, each store's computer where the Joneses had charged certain purchases will order Jones' bank's computer to switch the amount of the charges to the store's account. Additionally, if the Jones' bank account runs short, the computer will automatically lend them what is needed, up to a predetermined limit, deducting the repayments and interest charges when due. This phenomenon is known as overdraft banking.

Meanwhile, Mr. Jones' salary from his employer, minus the regular deductions, will be electronically written on a tape. The tape will run through a computer in the employer's office which is connected to a computer at Mr. Jones' bank. Every day the computer at the employer's office will instruct the bank's computer to deposit Mr. Jones' pay for that day in his bank. No longer will Mr. Jones have to deposit his check in person or by mail. In addition, Mr. Jones' employer benefits since he has cut costs by dispensing with the clerical work of making out checks and keeping payroll records. On the other hand, another intangible which Mr. Jones gains is that he no longer will lend his employer money. Previously, he was paid once a month which meant, in effect, that he was lending his employer approximately 30 days' pay every month without interest.

The bank's computer will also be an investment advisor. Suppose Mr. Jones instructs the computer that his living expenses never exceed $500 per month. The computer could then transfer anything above that amount to his savings account. Or Mr. Jones may instruct the computer to invest everything above $3000 in debentures or mutual funds. The computer could even determine the advisability of Mr. Jones taking a discount for prompt payment of a bill rather than paying later.

Mrs. Jones enjoys the EFTS with one exception—no longer is she able to write a check on Friday in order to purchase a new dress and then over the weekend talk her husband into putting money in their account Monday morning in order to “cover” the check. The reason for this is the elimination of “float,” *i.e.*, the time in which a check is in the process of collection.²

**B. Developments Conducive to Modification of the Payments System**

Although the above example may seem unrealistic at the present time, the fact is that we are now experiencing part of this process. In addition to the expanding use of credit cards in our society, some of the other major developments present today which will carry over into the future are:

1. Preauthorized bill paying by banks;
2. Overdraft banking;
3. Increased use of automation by commercial banks;
4. Increasing development of new technology; and
5. Central information files.

1. Preauthorized Bill Paying

Briefly, preauthorized bill paying by banks works in this way. A depositor will give his or her bank written authorization to pay specific recurring bills such as utilities, insurance, rent, mortgage payments, etc. up to a certain amount. The bank will then merely deduct from the person’s account the amount of the bill paid and credit it to the proper corresponding account. “[It] is simply an automatic method of paying from or depositing funds to an individual bank account, under authority granted to the bank by the account holder.” More will be said later concerning this device.

2. Overdraft Banking

The revolving overdraft loan is also very important. The overdraft is “a written order, directed to a bank, to pay a stated sum which is in excess of the funds available in the account from which the order is to be paid.” Clearly, “[w]ithout this feature the whole operation of automatic value exchange may very well grind to a halt amid a welter of irritations at its inadequacy in meeting the day to day needs of the consumer.”

A common example is the insurance company, which instead of billing the customer each month sends the bill for the premium to the customer’s bank which pays the bill by simply transferring the specified amount from the customer’s account to the insurance company’s account. Such preauthorization accomplishes three significant things:

Since the customer received no bill, he did not have to write a check and mail it to the insurance company; since the insurance company maintained a checking account at the customer’s bank, the transaction could be completed as a book entry—no check was required; since no check was required, the transaction could be completed almost instantly, once the bill had been presented to the bank. The customer’s bill was paid, the insurance company had access to the funds practically as soon as payment was due, and no checks entered the payments mechanism.

3. Increased Use of Automation

The increased use of automation by commercial banks permits us to think constructively about an electronic funds transfer system (EFTS). Automated devices currently in operation include computers with high processing speed, multiprocessing capability, and high speed mass memory, on-line terminal systems, voice recognition devices and sophisticated computer languages, and management systems. Recently,

4 Id. at 10.
6 Federal Reserve Bank of Boston, supra note 3, at 11.
Technology has given bankers a big hand in shoveling through the perpetual blizzard of paper: computers that read checks, confirm signatures, tally accounts and render statements are the reason why bank personnel do not work hundred-hour weeks.\(^7\)

4. Technological Developments

Third generation computers\(^8\) employing sophisticated multiple use techniques are sufficiently adaptable and capable of vast memory storage to permit instantaneous access from a large number of terminals, rapid response, and use from remote areas. In addition, touch tone telephones\(^9\) exist which transmit number codes for both identification and transaction. The consumer can identify himself in a variety of ways, e.g., voice prints or numerical codes. Many of these devices are in operation today. Illustrative of this fact is the current experiment being conducted in Upper Arlington, Ohio, organized by City National Bank and Trust Company in conjunction with IBM and National Bank Americard, Inc.\(^{10}\) IBM designed a minicomputer terminal which a number of Upper Arlington merchants have installed next to cash registers. The units validate the credit card purchases and, through a computer in the City National Bank, instantly credit the sale to the merchant's account. The customer is billed and has 25 days to pay. The merchant receives his money immediately, since his account is credited without a trip to the bank. A similar more ambitious project has been under way for a number of years in Wilmington, Delaware, under the auspices of the Bank of Delaware. Mr. Donald R. Schnee and Mr. Walter E. Trabbold, both bank vice presidents, are two of the key men in the Bank of Delaware plan. Their views on the importance of the computer in commercial banking places technology's role in proper perspective. They believe that:

Properly used, the computer can hold down operating costs in the face of a steadily and rapidly increasing operational workload. It can provide a foundation for an array of entirely new customer services. And, through these services, it can enable banks to take the initiative in the highly profitable consumer-credit area and immensely increase the scope of the financial services they can offer business. This combined potential makes the computer just about the single most important profit factor in commercial banking today.\(^{11}\)

5. Central Information Files

Many banks that participate in the credit card arena are amassing central

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\(^7\) **News Front**, May 1968, at 31.

\(^8\) Third generation computers are characterized by modularity and compatibility. These computers are sufficiently adaptable so that new equipment may be added to them when needed rather than having to build an entirely new system.

\(^9\) Tied in with touch tone telephones is an ARU, or audio response unit, a product of IBM. A customer may present a check to a teller to be cashed. The teller can check the customer's balance in his account and direct the computer to establish a hold thereon by using the touch tone instrument which is on line with the computer. Almost immediately, the teller receives an oral response from the computer which informs him that the customer's account is good for a certain amount of money.

\(^10\) The Plain Dealer, Nov. 1, 1971, at 1, col. 1.

information files on their customers which contain financial information, pertinent data and a "basic description of every customer, including his relationship with the bank and cross-references to where detailed account information can be found." These central information files form the nucleus of a central information system, "a system that organizes all the information about accounts in a way that makes it quickly and easily accessible to the people and machines concerned with performing the various operational functions." The importance of these central information files is obvious. Any retailer or bank possessing an online terminal could obtain an up-to-date report on the status of a particular customer's account almost instantaneously. Such a file would facilitate faster service while at the same time preventing fraud by the customer, in addition to providing other information.

For the electronic funds transfer system to become operative on a national basis, we must think in terms of a unified central information system. The necessity for such a system is apparent in the following example:

A man buys a car in Los Angeles, and falls behind in his payments. To keep the car from being repossessed he takes out a loan in Denver. Instantly, the computers will spot the ploy and his Bank Americard will be cancelled before he can run up a debt which the odds are he won't be able to repay.

It is apparent from the preceding discussion that a Less-Check Society will not come about through revolutionary means but through a gradual evolutionary process in the payments system—a process which this country has experienced many times before. The check, long considered to represent "about as sophisticated a payments mechanism as modern commerce and technology might devise," is now giving way to a computerized payments mechanism. The form of money is changing:

The world has seen some pretty ridiculous kinds of money—from shells and little stones with holes cut in them, to scraps of paper of assorted colors and designs. But in their respective times and places, each has done a very important job; each has served as a more-or-less workable means of making payment for goods and services.

Next, we will examine the most important aspect of money, i.e., what it does.

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12 Id. at 15.
13 Id.
14 Id. at 24.
16 The "Less-Check" Society is one in which we will use a proportionately smaller number of checks in the fund transfer process because of the development of new, more convenient and economical forms which will replace many if not all of the checks that flow through the banking system.
17 Federal Reserve Bank of Boston, supra note 3, at 3.
18 Id.
19 Id.
C. Historical Perspective

1. In General

"Money is a machine for doing quickly and commodiously what would be done, though less quickly and commodiously without it."

John Stuart Mill

In an exchange society, money acts as an intermediary that performs four primary functions. It acts as (1) a measure of value, (2) a medium of exchange, (3) a store of value, and (4) as a standard of deferred payment. We will focus our attention on the second and fourth of these capacities.

As a medium of exchange, money has served to ease the burden of increased economic activity. To bring about the smooth and effective exchange of goods as new economic systems evolved, innovations in the basic money form have adjusted to the demands of technology. In each step of the evolutionary process, the volume of transactions has increased, thereby warranting further innovation. A look at the five previous stages of development of the payments system illustrates this. First, the Age of Commodity Money, or the barter system, evolved. This was followed by the Age of Metal Coinage. Then, during the Middle Ages, came the Age of Receipts, whereby written receipts were the medium of ownership. A few hundred years later the Age of Paper Money developed. Most recently, in 1861, the Age of Checks was introduced into the United States.

The more modern function of money as a standard of deferred credit has been institutionalized in the banking and savings and loan industries. For some time, banks have participated in retail credit financing by lending money to consumers. In 1951, banks followed the lead of oil companies, department stores, and travel and entertainment credit card programs and offered their own credit card plans. Their entry has made consumer financing more profitable, but the mass of paperwork that has accumulated calls for an evaluation of the basic money form. The introduction of computers and high-speed MICR reader-sorters are only temporary measures in stemming the tide of paper volume.

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21 At one time money had its value as a commodity. George W. Mitchell has stated that thru history "money which was inferior in its commodity value had the capacity to force out circulation money that was superior in that respect. Eventually the phrase 'bad money drives out good' became a monetary aphorism." Mr. Mitchell hopes that since money no longer has worth as a commodity, the relative advantages of alternative forms of money, i.e., availability, convenience, safety, and economy, will be exploited. As a result, he foresees an electronic transfer system (credit transfers) displacing at least half of the present-day volume of checks without the concomitant problems of float, check kiting, inflated deposit totals and other effects adding to the cost of the payment system. He proposes that this new form of money transaction will make it possible for "good (better) money to drive out 'bad'—something that has not happened up to now." Address by George W. Mitchell, Member, Board of Governors of the Federal Reserve System, at the American Management Association, New York, Mar. 24, 1971.
23 Magnetic Ink Character Recognition.
Whether transfer of money is accomplished through a telephone or a computer terminal, and whether it is activated by an electronic sensitized "money card" or a personal identification card, the underlying purpose is the same—"to harness the lightning-fast calculating speed and massive information storage capabilities of modern electronic computers in a new and important way." The end result sought is the reduction in the use of checks and speeding up of the process of fund transfers. A change in the basic money form to an EFTS is drastically needed. This change will not be a novelty; rather it will be the sixth stage in the development of the payments system—The Age of Less-Check.

2. Why An EFTS?

The number of checks processed in the United States each year has been growing rapidly. In another ten years, truly staggering amounts of paper will require processing by the banking system. Even with the help of Magnetic Ink Character Recognition (MICR) encoding and processing, many banks are experiencing difficulties handling the growing number of checks. It seems obvious that these difficulties will mount as check volume continues to increase.

This survey discusses the problem of handling this increasing paperload, and looks at the development of what many feel will be the ultimate solution: the Electronic Funds Transfer System. The focus is on (1) the historic development of the credit card which will become an integral part of the EFTS, (2) basic problems which must be met if such a system is to evolve, (3) some of the developments which are currently under way, and (4) selected legal problems of the EFTS.

What is the present and future status of our payments system? Is our check-based payments system undergoing a revolutionary change which will result in the disappearance of the check, or are we simply continuing an evolutionary change which will introduce a new payments alternative into our present structure? A study of today's problems, available alternatives, and areas of resistance which will have to be surmounted to achieve a basic change in our payments system, should shed light on where we may be going, what needs to be done to get there, and what changes are likely to occur along the way.

An investigation conducted by the Bank Administration Institute developed estimates of the volume and dollar amounts of money transfers in our present payments system. These estimates appear below.

1967 Estimated Distribution of Money Transfers
by Volume and Dollar Values

<table>
<thead>
<tr>
<th>Types of Money Transfers</th>
<th>Average Daily Number of Money Transfers</th>
<th>%</th>
<th>Average Daily Dollar Value of Money Transfers</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Checks</td>
<td>74,900,000</td>
<td>99.6%</td>
<td>$29.2 billion</td>
<td>52.8%</td>
</tr>
<tr>
<td>2. Wire</td>
<td>34,500</td>
<td>0.1%</td>
<td>$25.5 billion</td>
<td>46.1%</td>
</tr>
<tr>
<td>3. Miscellaneous*</td>
<td>265,500</td>
<td>0.3%</td>
<td>$0.6 billion</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

*Miscellaneous money transfers includes bank credit card sales slips, debit and credit advances from correspondent and Federal Reserve Banks to smaller banks, coin and currency transfers, etc.

The major role played by the check in our present payments system is well illustrated by this table. The popularity of the check as a medium of exchange is further illustrated by an inspection of annual check volume. In 1945, annual check volume was 5.3 billion; in 1955, 8.9 billion; in 1966, 18.0 billion; and in 1970, 22.0 billion. As might be expected, this rapid growth has placed considerable pressure upon the banking industry's ability to process these payments transactions.

Because of these pressures, dire future predictions and numerous suggested revisions in our payments system became commonplace in both bank trade and general business publications. Concern, both within and without the banking industry, developed regarding the banking industry's future ability to cope with this growing paper mountain. It was recognized that "[d]istribution systems which must process and transport paper items have maximum volume limitations, and they begin to falter when these limits are reached. The postal system and brokerage houses, currently struggling to maintain effective service, already may have reached this point."

During this period of substantial growth in check volume, the introduction of the computer and continued refinement in both hardware and software offered new alternatives which would not require the passage of paper. As a result of these concurrent developments, trade literature began proclaiming the birth of an entirely new payment system—the Less-Check Society.

D. The Problem: A Mounting Paper Load

As has been indicated, the volume of checks processed in the United States has experienced startling growth, increasing at about a seven percent annual rate during the past 15 years. Moreover, the average check is processed through 2.6 institutions before it is paid, and each check is often handled more than once in a single bank. The 18.65 billion checks written and paid in 1967

27 Id. at 3.
28 A Cashless Society Isn't Here, BUSINESS WEEK, June 5, 1971, 21, 22.
30 A colloquialism applied to the mechanical, electrical, and electronic features of a data processing system.
31 The programs and routines used to extend the capabilities of computers.
32 FEDERAL RESERVE BANK OF BOSTON, supra note 3, at 1.
33 BANK ADMINISTRATION INSTITUTE, supra note 26, at 17.
required about 48.68 billion individual bank handlings.\textsuperscript{34} It has been estimated that this processing represents an annual cost of over $3 billion.\textsuperscript{35}

The check collection system is illustrated in the diagram below.\textsuperscript{36}

The entities involved in the check collection process and the paper flow are illustrated by the following diagram.\textsuperscript{37}

\textsuperscript{34} \textit{Id.} at 18.
\textsuperscript{35} \textit{Federal Reserve Bank of Boston, supra} note 3, at 4.
\textsuperscript{36} \textit{Bank Administration Institute, supra} note 26, at 13.
\textsuperscript{37} \textit{Id.} at 12.
As can be seen, this collection mechanism consists of a network of processing points which are tied together by transportation and communication systems. The processing points are the nation's 13,693 commercial banks with their 17,690 branches, 248 city clearinghouses, and the 12 Federal Reserve Banks with their 24 branches.\(^3^8\) Federal Reserve Banks and about 400 larger commercial banks are the major distribution centers.\(^3^9\) Through these processing points flow more than half of all the checks written.\(^4^0\)

The use of the check, with all its advantages, is an inherently inefficient payment instrument. As indicated in Figure 1, at its routine best, a check makes a double trip going from drawer to payee and back again. At its dishonored worst, it travels only part of the original route, perhaps once, perhaps several times.\(^4^1\) The obvious disadvantage of the stop-shuffle-and-go-paper-merry-go-round in an age of direct long-distance dialing and other communication marvels strongly suggests that it is only a matter of time until the collection-payment mechanism undergoes a reform which will produce the speed, directness and certainty which, on one hand, technology makes available and, on the other, modern financial conditions demand.\(^4^2\)

The effect of any attempt to stabilize or reduce the number of checks processed through the bank collection system must take into account who initiated the payment order, who received the payment, and what its purpose was. An understanding of the source and destination of check flow is necessary to evaluate the effect that any alternative will have on reducing the volume of checks. The table below gives the results of a survey conducted by the Bank Administration Institute regarding the source and destination of checks.\(^4^3\)

As can be seen, individuals are the major check writers and businesses the major

<table>
<thead>
<tr>
<th>Check Writers</th>
<th>Percentage of Checks Written</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals</td>
<td>51.7%</td>
</tr>
<tr>
<td>Business</td>
<td>46.6%</td>
</tr>
<tr>
<td>Government</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Check Receivers</th>
<th>Percentage of Checks Written</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals</td>
<td>42.8%</td>
</tr>
<tr>
<td>Business</td>
<td>55.0%</td>
</tr>
<tr>
<td>Government</td>
<td>2.2%</td>
</tr>
</tbody>
</table>

\(^{38}\) Id.  
\(^{39}\) Id.  
\(^{40}\) Id.  
\(^{41}\) Dunne, *Variation on A Theme by Parkinson or Some Proposals for the Uniform Commercial Code & the Checkless Society*, 75 YALE L.J. 788, 790 (1966).  
\(^{42}\) Id. at 792.  
\(^{43}\) BANK ADMINISTRATION INSTITUTE, *supra* note 26, at 7.
check receivers. Such programs as the one-check payroll\(^{44}\) and preauthorized payment of bills\(^{45}\) can play a substantial role in the reduction of check volume. Each of these programs could reduce the number of checks written by individuals and businesses.

The banking industry has been so successful in marketing its checking account services that it is questionable how long they will be able to continue to efficiently process checks. It has been estimated that if all checks written in 1967 were processed by hand, as they once were, it would take every woman in the United States between the ages of 18 and 60 to accomplish it.\(^{46}\) However, the increasing pressure has been relieved somewhat through the introduction of Magnetic Ink Character Recognition (MICR). The use of MICR has enabled the system to process an ever-increasing load, and thereby buy time for future change to be implemented in an orderly fashion.

E. MICR—A Short-term Solution

1. In General

The banking industry found a short run solution to its paper load problem through the use of MICR which now appears on all checks. This inscription in magnetic ink enables machines to read the identifying number of the drawee bank, the dollar amount involved, and the account number of the account to be charged. Electronic data processing equipment can digest this information, sorting and tabulating at speeds up to 1,500 checks per minute.\(^{47}\) Thus far, the use of the computer's skills at reading and writing has been generally limited to facilitating check sorting and bookkeeping jobs within points along the check clearing route, although there is no technical reason why, having once read the information on a check, the equipment could not then transmit the data electronically to the payor bank.\(^{48}\) Consequently, while each institution through which a check passes may have done its bookkeeping chores electronically, each, in turn, has duplicated a number of steps in the bookkeeping process, just as it had before the electronic mechanisms joined the office staff.\(^{49}\)

This improvement in check processing primarily affected only those who participated in the bank collection process. Since the use of MICR had very little effect upon users of checks — the housewife or businessman — adoption of this system required only that banks and clearinghouses acquire the necessary equipment, and pre-encode checks before distribution to banking customers. Since the objective was to solve an internal problem of check volume, the con-

\(^{44}\) The employer, rather than issuing a check to each employee, draws one check for the entire payroll and deposits it in his payroll account. He then furnishes the bank with payroll records indicating the amount of pay each employee is to receive. The bank then credits each employee's account with the amount of his earnings.

\(^{45}\) The bank customer authorizes his bank to debit certain monthly bills directly to his checking account. The vendor then sends the bill directly to the customer's bank. Upon receipt of a bill for which the bank has received a preauthorization, the bank debits the customer's account and credits the vendor's account.


\(^{47}\) FEDERAL RESERVE BANK OF BOSTON, supra note 3, at 6.

\(^{48}\) Id. at 6.

\(^{49}\) Id.
version to automated data processing was accomplished without significant opposition. However, such ease of transition is not likely to accompany a change which affects the user of the payments system.

As indicated above, the essential data the check carries is pre-encoded in magnetic ink on the check prior to customer receipt. The amount of the check is encoded once the check enters the collection process. Errors in this encoding process may give rise to both operational and potential legal problems.

2. Legal and Operational Problems

If the encoding in the amount field differs from the amount for which the drawer issued the check and this error goes undetected, it will result in over-payment or underpayment of the check. An example of such a processing error and its possible consequences was related by John Fink, Vice President, First National Bank of Southwestern Michigan. A check had been received through the collection system, processed; paid, and returned to the drawer in his monthly statement. This check had been drawn for $65,000; but, due to an undetected encoding error by the depository bank, the check had passed through the clearing process and was ultimately paid according to the amount encoded, $6,500. As a result of this error the payor bank could have missed a stop payment order. On the other hand, had the check been over-encoded rather than under-encoded, it could have resulted in a debit to the drawer’s account for the over-encoded amount which may have resulted in the return of other checks for insufficient funds. Or, had the under-encoded check gone undetected for a sufficient period of time, the payee’s account, not having been credited with the proper amount, could have been overdrawn, resulting in his checks being returned for insufficient funds (NSF). In either case the bank may be accountable for damages proximately caused by dishonor of these subsequent checks.

Although there are no judicial decisions allocating loss resulting from erroneously encoded items, such errors do occur. The reason for this lack of reported decisions is probably the ease with which the source of the error can be determined, which allows banks to settle their disputes based upon the source of the improper encoding.

Section 4-402 of the Uniform Commercial Code establishes the liability for wrongful dishonor and sets the measures of damages as those proximately

50 Interview with John E. Fink, Vice President, First National Bank of Southwestern Michigan, in Niles, Michigan, Oct. 27, 1971.
51 Upon receipt of a stop payment order, banks which use a computer processing system instruct the computer to reject all checks drawn for the amount of the stopped check on the account against which the stop order was placed. Since the check number is not magnetically encoded the only method by which the computer can identify a stopped check is the amount field. Any checks rejected by the computer are inspected by a clerk to determine if they are the check against which the stop order was placed. An under-encoded or over-encoded check will not be rejected. Unless the error is discovered by the clerk who files the checks the stop order is likely to be missed.
52 Uniform Commercial Code § 4-402.
53 Address by John J. Clarke, Vice President & Special Legal Advisor of the Federal Reserve Bank of New York, School for Bank Administration, Aug. 7-8, 1968 [hereinafter cited as Address by John J. Clarke].
54 Interview with John E. Fink, supra note 50.
caused by the wrongful dishonor. This would seem to establish the payor bank’s liability to the drawer for wrongful dishonor of an over-encoded check. However, the encoding error may well have occurred at an intermediary bank or at the depository bank. The problem may often become, therefore, one of allocation of liability between the collecting bank which erroneously encoded an item and the payor bank. Such allocation of liability may turn upon an assessment of the degrees of fault attributable to the encoding bank that made the initial error and the payor bank that paid too much or too little as a consequence of that error. Presumably, the party regarded as most at fault would be called to bear the full brunt of the risk of loss. This suggested method of allocating the liability between banks is compatible with other generally accepted legal principles.

Another potential problem can arise from encoding errors in either the customer’s account number or the bank’s routing-symbol-transit number. These identifying symbols are pre-encoded on the check when delivered to the account holder. Check stock is usually purchased by the bank from a supplier who encodes these symbols. An encoding error in the customer’s account number may cause his check to be debited to another account within the bank, with the resulting problems mentioned when an over-encoded check is debited to the drawer’s account. Here again it would seem reasonable that the liability would turn upon an assessment of fault between the payor bank and the supplier who encoded the check.

An incorrectly encoded routing-symbol-transit number, which can be a product of either error or fraud, may result in the so-called “ricocheting check.” An example of this phenomenon is as follows:

What happens is that the routing-symbol-transit number MICR encoded along the bottom of the check contains an error in that the indicated Federal Reserve District does not have a Bank in its district that has that transit number. Therefore when the check, after having entered banking channels is sent to the indicated Federal Reserve Bank, it is rejected by the Bank’s high speed sorting equipment and becomes an “out” item subject to manual processing. The problem is compounded, however, when the check is subsequently examined by a clerk. The printed symbol in the upper right-hand corner of the check (which the clerk customarily examines) indicates that the check is drawn on a bank in another Federal Reserve District. When it is sent there and is introduced into the high speed equipment of the Federal Reserve Bank, it is sorted back to the first district because that is what the MICR encoding calls for. The process is there repeated, and continues so long as the check is a machinable item. Whether this kind of check is the result of an innocent error or is an instrument of fraud, a bank of deposit would no doubt pay out against such a check once the normal time for presentment and return had elapsed, and long before the check would itself be spotted in the normal way.

55 Address by John J. Clarke, supra note 53.
56 Id.
57 Id.
58 Id.
59 Id.
60 Id.
The fact that these varied instances of potential legal problems exist as a result of the adoption of MICR encoding gives some indication of the complexities which arise when the payments system is altered. However, this relatively minor operational change in the processing of checks apparently has not been a source of litigation. In practice the system works well and allows the banking industry to handle an ever-increasing volume of checks.

II. Development of the Credit Card Industry

A. Early Credit Card Operations

The decade of the 1960's has been correctly called the age of the consumer. Credit cards and bank cards have, to a large extent, played a significant role in this development. How the consumer became king is a story of the rapid evolution of debt through installment credit.

Debt, once considered as something sinful and still so considered by some, has become part of the American way of life. "Buy now, pay later," often considered as a sort of forced savings for those who otherwise never would have deprived themselves sufficiently to save enough to make all cash purchases, has brought virtually every type of consumer good within the reach of even many relatively low income families.

It is safe to say that the American consumer was not the innovator of debt. Long before Columbus set foot on American soil, the Babylonians, the Egyptians, the Celts and the Romans, among other civilizations, extended credit. The ancients used letters of credit to travel on, "a rather antediluvian hybrid of credit card and traveler's check." The first actual credit card was not the same as we have today. Rather, it was a letter of credit. Called the "Traveletter System," it was introduced in 1894 and used by executives and salesmen to charge traveling and lodging expenses.

A forerunner of today's credit card was the "credit coin" which was issued principally by department stores to their customers as a convenience for prompt service on credit sales. During the early development of installment credit, the customer ordinarily incurred no fee for the privilege of using goods on credit. Today, the retailer usually exacts a service charge computed monthly on a percentage of the unpaid balance.

64 A Friendly Game of Cards, BUSINESS TODAY, Autumn 1970, at 32.
65 H. Black, supra note 63, at 14.
66 The credit coin is a metal piece showing the name of the retail merchant and includes a series of numerals which pertain to the customer's account. The credit card as we know it today is a piece of plastic or stiff paper which displays the name and/or address of its owner and his billing number.
67 Davenport, Bank Credit Cards and the Uniform Commercial Code, 1 VAL. U.L. REV. 218 (1967).
68 Most charge accounts work on a "revolving credit basis" which developed out of the 90-day charge account with the addition of a service charge (usually 1% to 1 1/2%) to the unpaid balance at the end of each month; purchases may be made against the account each
The credit card first came into widespread use beginning in the 1920's as a result of promotion by the large oil companies who began issuing courtesy cards to certain privileged customers. In those days, credit cards had three basic functions:

1. They were often prestige items issued only to valued customers;
2. They were more convenient to use than cash; and
3. They provided some degree of safety.

During World War II the use of credit cards virtually disappeared because of restraints placed on consumer spending by the Government. With the end of the war, the restrictions were gradually lifted and many that had previously issued cards reinstated their plans. Diners' Club became one of the pioneers of the travel and entertainment card and enjoyed a virtual monopoly as a "money card" until October of 1958 when the American Express Company entered the scene to be followed by the Hilton Credit Corporation approximately six months later.

The services offered by these companies have remained basically unchanged since their initial appearance. Their primary appeal lies in the selling of a service rather than a product and should not be confused with bank credit cards. The travel-oriented cards issued by these three companies provide national and international coverage for charge purchases for transportation, hotel accommodation, and dining to meet the needs of businessmen and tourists. For this reason, they are often called travel and entertainment or T & E cards, even though they can be used for other kinds of purchases. A person who meets the requirements set up by these companies is issued a card in exchange for an annual fee. The average user is charged $15-$25 a year, more if he has supplementary cards for month as long as the balance does not exceed the account limit. The balance may never be cleared for the credit "revolves" round and round. Comment, The Tripartite Credit Card Transaction: A Legal Infant, 48 CALIF. L. REV. 459 (1960).

It all began one February night in 1950, when a struggling New Yorker, Frank MacNamara, decided to work late at his office, the Hamilton Credit Company. MacNamara, a 35-year-old specialist in commercial credit, took time off to have a dinner at a strange restaurant. Upon presentation of the bill, MacNamara discovered he had misplaced his wallet. Faced with the possibility that he might have to spend the rest of the evening among the restaurant's pots and pans, he put in a hasty call to his wife on Long Island to bail him out. She arrived two hours later with the money. The next day MacNamara had lunch with his lawyer, Ralph Schneider, and together the two hatched the idea of what was to become the Diners' Club. In the credit card industry, MacNamara's dinner is now fondly referred to as the First Supper.

There are two basic types of cards, the travel and entertainment type, which covers almost any kind of expense anywhere, and the private label card, which is issued by a particular organization, such as an airline, for using its services only. The principal difference between the two is that the travel and entertainment card must be paid for, while the private label cards are issued free.

The three prominent T&E cards are Diners' Club, Carte Blanche and American Express. How Credit Cards Can Help Your Firm, ADMINISTRATIVE MANAGEMENT, April 1968, at 56.

The American Express Company issues the American Express Credit Card.
members of his family. Participating establishments send their sales tickets to
the card issuer in return for the amount of sale less a prenegotiated discount.75
Retailers feel that the increase in sales revenue through increased use of the cards
by customers more than makes up for the discount he accepts for the privilege
of accepting the card and transferring his receivables to the credit card
company.76

Diners' Club had many difficulties in the beginning since it was treading in
an unknown area. Many establishments were skeptical and doubted that the
system could actually function effectively. Eventually, however, a number of
establishments "form[ed] the nucleus for what was to become a world-wide
multicellular operation."77 The introduction of any new idea of this magnitude
necessarily involved a large initial expense; hence, high volume was needed in
order to reach and exceed the break-even point. This volume was achieved
through a large outlay for advertising coupled with the issuance of cards to
marginal credit individuals. Of course, when the profits started to accrue,
entrepreneurs saw the writing on the wall and took steps to get a share of the
market. This marked the arrival of American Express and Carte Blanche in
1958.78 Customers of these three travel and entertainment cards have primarily
been businessmen who "'charge' virtually all but pocket-change expenses en-
countered on a typical business trip."79

B. Bank Credit Card Operations

Banks entered the credit card field in the 1950's. The Franklin National
Bank in Franklin Square, New York, marked the introduction of the current
bank cards in 1951.80 In September 1952, the First National Bank and Trust
Company of Kalamazoo, Michigan, entered the charge account banking field as
the first bank credit card plan in the Midwest, and the second in the United
States.81

As in the travel and entertainment card area, losses were staggering during
the initial stages, due once again to the inordinately high cost of introducing a

75 For example, when you charge a meal at a restaurant with a Diners' Club Card, your bill
is sent to the regional headquarters and the restaurant is reimbursed the amount of the sale
price less a discount of 7 percent. So in effect, the restaurant or establishment receives
93 percent of the price with the remaining 7 percent going to the Diners' Club for the handling,
bookkeeping and collection of the money from the cardholder, who pays Diners' at the end of
the thirty-day billing period.
76 D. RICHARDSON, ELECTRIC MONEY: EVOLUTION OF AN ELECTRONIC FUNDS-TRANSFER
SYSTEM 57 (1970).
77 BLACK, supra note 63, at 13.
78 It should be noted that entry into a successful field does not mean instant success. For
instance, during its first full year of operation Carte Blanche reported a loss of $2.4 million,
of which at least $800,000 was in bad debt expenses. It was not until 1963, five years after
introduction, that the card company was in the black. CREDIT CARD COMPANIES COME INTO THE
CHIPS, BUSINESS WEEK, Sept. 4, 1963, at 54, 56. Diners' Club lost $30 million in 1970, and
$13 million in 1969. This was primarily attributable to bad debts. In addition, Carte Blanche
tripled its write-offs for delinquent accounts in 1970 and lost $1.7 million; A BANKER'S PIPE
79 D. RICHARDSON, supra note 76, at 56.
80 Id. at 76.
81 Id. at 77, 78.
credit card program. Banks discovered quickly that additional equipment and personnel were needed to handle the intricacies of the system. Because of the large amount of initial expenses and the inexperience in this form of credit extension, a number of banks were forced to drop out of the field. Only a select few were able to maintain some type of profitable operation that insured longevity. For instance, of the nearly 200 banks that had credit card balances outstanding in September 1967, only 27 had started their card plans before 1958.

Two of the nation's largest banks, Bank of America and Chase Manhattan, introduced their credit cards in 1958. The Bank of America quickly ascertained the requisites of a successful credit card operation: volume and control. Volume is basic to the economic use of electrical equipment to take over paper work. Controls are basic to avoidance of costly collection problems. In order to get off to a fast start, the Bank of America issued about 2,500,000 cards, many to individuals who were poor credit risks and some to individuals who did not even desire them. Unlike the three prominent travel and entertainment card companies that catered primarily to businessmen, the Bank of America and other bank credit cards catered to the "average family," enabling the family to purchase on credit items of everyday living at a large variety of retail outlets.

Chase Manhattan became discouraged by its inability to generate sufficient volume and subsequently sold its credit card business in January 1962. As a

82 Abouchar, Operational Trends in Bank Charge Cards, Bank Administration, April 1970, at 32.
84 Id.
85 H. Black, supra note 63, at 115.
86 Allen, A Credit Card Operation That's Hit the Jackpot, Burroughs Clearing House, Sept. 1964, at 50, 51.
87 Id.
88 D. Richardson, supra note 76, at 80.
89 As one spokesman for Bank America said, "The degree of credit checking we did was somewhat limited by the urgency to get the card out on the wide basis... we had to move fast." The Charge-It Plan that Really Took-Off, Business Week, Feb. 27, 1965, at 58.
90 The following table depicts the profile of charge card ownership according to household income. Note that the ownership of all types of charge cards is closely related to total family income.

<table>
<thead>
<tr>
<th>TYPE OF CREDIT CARD</th>
<th>UNDER $10,000</th>
<th>$10,000 TO $14,999</th>
<th>$15,000 OR MORE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department Stores</td>
<td>70.3%</td>
<td>81.9%</td>
<td>84.6%</td>
<td>78.5%</td>
</tr>
<tr>
<td>Oil Companies</td>
<td>57.5%</td>
<td>74.7%</td>
<td>76.7%</td>
<td>68.6%</td>
</tr>
<tr>
<td>American Express, Diners, C.B.</td>
<td>5.0%</td>
<td>11.1%</td>
<td>24.7%</td>
<td>14.6%</td>
</tr>
<tr>
<td>Bank Cards</td>
<td>45.7%</td>
<td>56.9%</td>
<td>65.1%</td>
<td>54.4%</td>
</tr>
<tr>
<td>No Credit Cards</td>
<td>16.0%</td>
<td>7.0%</td>
<td>5.8%</td>
<td>10.3%</td>
</tr>
<tr>
<td>One or More Cards</td>
<td>83.6%</td>
<td>92.8%</td>
<td>93.9%</td>
<td>88.8%</td>
</tr>
</tbody>
</table>


92 Chase Manhattan sold its credit card to Uni-Serv Corp. of Forest Hills, Long Island. It paid over $8.8 million for almost exactly that amount of Chase Manhattan Charge Plan receivables (with all due accounts weeded out) plus the large credit files and lists of names that Chase had collected. New Shuffle in Credit Cards, Business Week, Nov. 3, 1962, at 65, 66.
result, many smaller banks became reluctant to enter into the field and only a few plans came into existence during the period 1961-1965. However, banks began to renew their interest in the credit card field early in 1965. This time, instead of jumping headfirst into the charge card domain, banks made use of feasibility studies which were conducted by the banks themselves or by outside research organizations in order to discover problems and to determine market potential. Since 1965, hundreds of banks have either initiated their own card programs or have agreed to participate in licensee or joint-bank credit card arrangements.

C. Interbank Credit Card Operations

Because of the great competitive pressures, several Midwestern banks introduced the Midwest Bank Card in 1966. These banks desired to obtain as many cardholders as possible. Pursuant to this end, the banks not only invited applications for their cards, but also mailed the cards to persons who had not applied for them. This unsolicited mailing resulted in some unfavorable publicity and legislation was proposed to curb the distribution of these cards. The publicity was the result of the inevitable consequences of any blanket mailing, "while the legislation was a kind of reflex action of an aroused public's representatives."

The logic of the cooperative type of credit card is obvious. Since start-up costs are high, a bank must be prepared to absorb these costs over a short-run period. In addition, discounts to merchants are lowered as the market becomes rapidly saturated, thus making it difficult for banks to break out of the "red." Obviously, it is better to allocate these costs among a number of banks and have them each absorb a proportionate amount of the costs, rather than having the entire burden fall on any one bank. Cooperative plans permit the participating banks to share start-up costs and the high credit risks of a mass distribution of cards.

In 1967, eight national banks announced the formal organization of Interbank Card, which marked a step towards the establishment of national and regional interchanges for bank credit cards. Interbank, a nonprofit cooperative,
quickly became a clearinghouse affiliated with over two hundred banks. Master Charge, a 5 million plus card group, started by the Western States Bankcard Association, is Interbank's largest member. Thus, through the Interbank-Master Charge combination, the marketing objectives of a national bank charge card plan are being achieved.

The interchange system, in addition to providing cost savings for the individual member banks, provides a certain advantage to its smaller members in that the smallest bank in the system has the same operational and marketing opportunities as the largest bank, thus allowing the smaller bank to service in this highly competitive area.

An interchange system, however, is not without its negative effects, such as "increased exposure to fraud because of the bank's lack of control when its card is used out of its market area," operational costs coupled with "the time consuming ... task of clearing the sales tickets back to the card issuing bank," and the "inhibition on converting to descriptive billing systems."

As these problems are alleviated, it is quite possible that we will see the gradual evolution of a single national interchange system—another step in the development of the Less-Check Society. The bank credit card would then develop as an individual's principal financial statement and means of identification. Banks would issue credit cards which would have five principal functions:

1. to obtain cash;
2. to purchase goods and services;
3. to provide a means of automatic payment of regular bills;
4. to serve as a consolidation point for all consumer lending;
5. to operate as a source of accounting information including the individual's checking account, transfers to savings accounts, etc.

Midwest Bank, Interbank Card and Bank Americard are members of national and regional interchange systems. D. Gibson, The Strategic and Operational Significance of the Credit Cards for Commercial Banks, October 1967, at 213 (thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Business Administration, Harvard University).

A distinguishing feature of Interbank Card was the regulations covering the situation when more than one bank in a local trading area joined the system. In these circumstances the by-laws were written to authorize interchange outside the local area, but no interchange was provided between local member banks in their own trading area. This arrangement avoided any change in the existing competitive relationships in the local market, but gave the cardholders of all member banks access to credit card outlets in other parts of the country.

101 Id. at 214.
102 Id. at 214.
104 Id. at 61.
105 Id.
106 "Descriptive billing is where the sale is described on the statement but the sales ticket is not returned with the statement." Id. Descriptive billing systems are one of the keystones in building toward on-line point of sale devices.
108 Id. at 9-10.
In order to supplement their credit card programs, banks initiated check-credit plans which were basically a form of installment credit connected with a bank checking account. To a certain extent, these check-credit plans were an alternative to credit cards and were less costly to operate. However, their importance to the banking industry has been and remains negligible compared to the tremendous impact of credit cards. This is primarily due to the fact that check-credit plans usually have been offered only to preferred customers. Nevertheless, many banks continue to use the check-credit plans as a means of profit in their operations.

D. Advantages and Disadvantages of Credit Cards

Both the travel and entertainment card and the bank credit card have enjoyed a rapid development because they offer certain advantages to their cardholders. Credit cards permit a certain amount of economizing on the level of cash that an individual carries. In addition, the single application for credit conveniently spares the customer the bother of multiple form-filling since his card can be used in a number of stores where he might wish to make purchases. A cardholder can also take advantage of seasonal sales even if he is short of cash at the time of the “clearance special.” Instead of being forced to miss the year end specials due to a low liquidity level, the customer can purchase and enjoy the item while making deferred payments at a more convenient time. A cardholder can also dispense with the time-consuming and sometimes embarrassing situation of having to get a check cleared for payment, a procedure resulting from the reluctance of many merchants to accept personal checks. Furthermore, payment of bills is simplified since cardholders need to write only a single check in order to pay for many transactions that have occurred within the previous time period. This serves a twofold purpose: First, service charges on checks will be reduced; and second, the one monthly statement received by the customer enables him to see at a glance all his purchases for the month thus helping him to simplify his budget process while also saving time. For those customers who can

109 Essentially, two general types of check credit can be distinguished. First, there are plans relying on the individual’s regular checking account and using his ordinary checks, but providing a prearranged automatic line of credit that is activated the moment the individual’s account is overdrawn, thereby permitting the honoring of checks—up to his preauthorized line—that would otherwise be returned to the seller. These plans are often called overdraft accounts. In some plans the bank covers with a loan that is exactly the amount of the overdraft; in others, the bank credits the account with loans in $50 or $100 increments. The second type of check credit involves plans in which a prearranged line of credit is activated by employing a special checking account and special checks provided by the bank. This is more prevalent type of check credit.

110 Id. at 15.

111 Id. at 23.

use their cards as a means of obtaining a cash advance, this added feature has the advantage of enabling the user to handle an unexpected emergency while at the same time maintaining his budget without having to withdraw from his savings account. An individual also benefits from the use of the card when filling out his tax return since the receipts provide a handy documentation of disbursements and expenses which the Internal Revenue Service may be interested in seeing. Finally, the "money card" may conveniently replace a multitude of special-purpose credit cards in an individual's wallet.

While offering the customer certain advantages, credit cards also benefit merchants whose businesses permit the use of the card. The merchant benefits by avoiding accounts receivable records, all billing and collection expenses, and all bad debt losses. The merchant also circumvents the necessity of tying up working capital to carry his receivables through the normal collection period because he is able to obtain immediate cash for his credit sales upon deposit of sales slips at his bank.

Banks benefit to the extent that their cards often attract new merchant business to the bank. This helps to shift the bank away from its usual heavy dependence on individuals as customers. Also, the bank card enables the bank to extend its business to local areas where it has no branches. The issuing bank establishes a profitable source of revenue both through the discount percentages on sales slips and from the service charges based on the unpaid balances where the cardholder elects to pay only a certain sum each month instead of remitting the total balance due to the card issuing bank.

Notwithstanding this multitude of benefits, the credit card is not the panacea of all ills. It also has its disadvantages to the bank or credit card company, to the merchant, and, finally, to the cardholder. The merchant objects because he does not participate in the income derived through the annual finance charge. In addition, since the discount is taken off the cash price, the costs of financing come out of his retail mark-up resulting in a possible decrease in profit margin. To many merchants, the amount lost through the discount represents the difference between a profit year and a loss year. Cash customers are hurt to the extent that they must bear the added costs created by other customers' use of credit cards since prices are raised in the store in order to meet the handling expenses incident to a credit card operation as well as to make up part of the merchant's discount. Cards also lead many customers into a sense of false wealth in that cardholders buy more than they would if they had to pay by cash or check. This temptation subsequently leads many customers into overindebtedness. For the most part, however, the advantages have far outweighed the disadvantages since consumer credit outstandings continue to rise. The following table demonstrates the greatly accelerated growth which bank cards have experienced during the period from 1957 through 1970.  

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It is clearly apparent from a perusal of the above figures that the great expansionary period occurred during the last six years. The future looks quite promising also. The following table illustrates bank charge card growth projections from 1970 through 1975.114

<table>
<thead>
<tr>
<th></th>
<th>1970</th>
<th>1971</th>
<th>1975</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARGE CARD AFFILIATES (TOTAL BANKS)</td>
<td>8,900</td>
<td>9,000</td>
<td>10,000</td>
</tr>
<tr>
<td>CHARGE CARD HOUSEHOLDS</td>
<td>30,000,000</td>
<td>32,000,000</td>
<td>40,000,000</td>
</tr>
<tr>
<td>AVERAGE ACTIVE ACCOUNTS</td>
<td>12,000,000</td>
<td>14,000,000</td>
<td>20,000,000</td>
</tr>
<tr>
<td>MERCHANT OUTLETS (EXCLUDES OVERLAP)</td>
<td>900,000</td>
<td>1,000,000</td>
<td>1,100,000</td>
</tr>
<tr>
<td>DOLLAR VOLUME</td>
<td>$6.5 Billion</td>
<td>$8.0 Billion</td>
<td>$15.0 Billion</td>
</tr>
</tbody>
</table>

Growth will be due to a greater percentage of accounts that are active as well as the addition of new services on the card, thus building usage. The card will become more restrictive and difficult to obtain, but those that apply will be users. The expansionary phase of cardholder building is clearly ended.

But why do we talk about credit cards? What is their relation to the Less-Check Society? The answer is that they are the forerunners, the pioneers, the stepping stones115 to the Less-Check Society. The advent and continued use of credit cards have somewhat relieved the increasing burden caused by the enor-

114 Id. 115 Stepping Stones to the Checkless Society, BURROUGHS CLEARING HOUSE, June 1967, at 23; Hazleton, From Credit Card to Instant Banking, FINANCE, Jan. 1968, at 16. For dissenting views, see BANK EQUIPMENT NEWS, March 1968, at 26; and the Address by James V. Vergari, Vice President and General Counsel, Federal Reserve Bank of Philadelphia, before the National Automation Conference of the American Bankers Association, in New York City, May 8, 1967.

Mr. Vergari does not believe that the credit card is an input or path to the checkless society. His thesis is that the credit card does not cut down the volume of checks issued or reduce the paper work involved. In addition he states that the credit card as an identification tool for use in a checkless society system has many deficiencies and would be very inadequate. He stated that "an effective identification device to be used in an efficient, all-purpose electronic settlement and payment system should have a universal identification number." “This is one of the barnacles on the present credit card system.”
mous volume of checks present in today's society. Many cardholders are accustomed to using one card for all or many of their purchases, thus fostering the desire for a national system of one "money card" that can be used everywhere. At the present stage of development, bank cardholders are accustomed to having the bank doing their billing by sending out a consolidated list of purchases at the end of the billing cycle. The next logical step would be for the bank to simply deduct the amount needed to meet the bills directly from the cardholders' account without having to bother the customer.

Before the EFTS becomes a reality, however, a proper legal framework must be laid. This framework should focus on the legal relationships of the principal parties—banks, cardholders, and merchants. An examination of the legal aspects of the credit card industry will provide the starting point.

III. Legal Effect of Credit Cards on Consumers

A. Introduction

Since the law first began dealing with the problems of the credit card customer, the credit card industry has undergone a marked development, a development which has been reflected in the treatment accorded the consumer by the courts, and, more recently, by the Congress. The courts have concerned themselves solely with the problem of customer liability for unauthorized purchases. Congressional concern has been broader, involving the whole spectrum of legal problems confronting the credit card consumer. This part of the survey deals with that treatment, the responses of the courts and of the Congress to the changes in the credit card industry. It is, in a sense, historical. The analysis of the evolutionary development of the credit card industry from the simple bipartite credit arrangement through the tripartite arrangement to the credit card revolution of the early 1960's is, of necessity, historical. Additionally, however, an analysis of the past cases and the present legislation dealing with this phenomenon and its impact upon the consumer is of great relevance to an assessment of the Less-Check concept, a concept which will be simply a further step in that evolutionary process. As a preliminary to this analysis, an understanding of the legal relationships among the parties to the credit card arrangement is helpful.

B. Legal Relationships

In understanding the mechanics of the credit card plans, it is important at the outset to distinguish between two-party and three-party plans. In the two-

117 This problem was ultimately solved by Congress which limited the cardholder's potential liability to $50. See text accompanying note 242 infra.
118 See text accompanying notes 20-24 supra.
119 In some plans, a fourth party may be involved. In that case the functions the card issuer would have had in the tripartite plan will be divided between a card issuer, who will collect fees and market the plan, and a bank, which will serve as a central collection and billing
party plan, such as those offered by department stores, the retailer issues a credit card to a customer, which permits him to make purchases from only that retailer (merchant) and to pay for the merchandise at some later date. Typically, a revolving charge account enables the customer to pay a fraction of his total bill and to pay the remainder in monthly installments with a 1.5 percent monthly service charge computed upon the outstanding balance. The primary functions of this plan are to increase sales volume and to provide a convenience to customers. The legal relationships are governed by the ordinary rules of contract.

The three-party plans require a detailed analysis. Any credit transaction of this type involves an issuer, a cardholder, and a merchant. Such a transaction entails a series of legal relationships, with each party possessing interrelated rights and duties.

1. Issuer-Merchant

An issuer has an economic burden of soliciting merchants to participate in its plan. Initially, the merchant agrees to promote the plan by displaying the plan emblem on his premises and to honor all credit cards of the issuer in return for the issuer's assumption of what would have been the merchant's accounts receivable. The merchant further agrees to return all sales slips to the issuer within three business days following the sale. The sales slip forms are supplied by the issuer, and usually include the total sales price, the holder's signature, an imprint of the basic information from the holder's credit card, and the merchant's name and identifying number. When the issuer receives the sales slips, the merchant's account is credited with the aggregate amount of all sales less a discount (usually between 2 and 7 percent), deducted as compensation for the issuer's services. Most issuers set floor limits on retail purchases by requiring the merchant to obtain specific approval from the issuer for all sales in excess of a specified amount. If the issuer is a bank, the merchant usually is required to maintain a commercial account in the bank.

In any event, in the tripartite plan, most of the rights and duties of the parties are set out in a form contract drafted by the issuer. In addition to the

agent for accounts. The responsibilities of the parties will not be affected, except to the extent that the issuer-bank contract apportions the rights and liabilities that normally rest upon the issuer alone. Claflin, The Credit Card—A New Instrument, 33 CONN. B.J. 1 (1959).

It should be noted that department stores do not generate much profit as a result of their credit card plans. Increased sales volume and customer loyalty alone constitute the impetus to continue this form of credit service. D. RICHARDSON, supra note 76, at 73. Mr. Sam Flanel, Vice President, National Retail Merchants Association, on February 29, 1968, pointed out that factors such as: different capital structure, an "exceptionally high volume of account activity, purchase, returns, payments, collections and the small amount of most credit sales transactions and payments" represent a vastly different cost structure than do other institutions extending credit. As a result, the net cost and income from credit sales on these plans are almost equal. It remains for advocates of an EFTS to convince participating merchants in two-party plans that an adequate sales volume could be maintained without the corresponding cost burden. As a result, their profits would be enhanced, allowing a third party to handle a more broad-based form of credit. Id.

Formerly it was a common practice for issuers of credit cards to distribute them either upon application or by sending them unsolicited through the mails. See text accompanying notes 233-41 infra. Oil companies and bank credit cards have historically been issued free of charge, while travel and entertainment card issuers have charged an annual fee.

For one example of a specific form contract, see the Member Agreement-Depository
requirements discussed above, the contract usually obligates the merchant to assign to the issuer all credit sales accounts, to sell his goods or services at the regular cash value, and to comply with the formalities surrounding the sales slip, including the giving of a copy to the cardholder-purchaser. Furthermore, the merchant agrees to indemnify the issuer for all claims arising from the sales transaction interposed as a defense, set-off, or counterclaim. In many instances, the merchant warrants that for the duration of the agreement he will not create a security interest in his accounts receivable or inventory in favor of any other person without prior notice to the issuer. Finally, many agreements contain provisions requiring the merchant to examine the cardholder's signature on the sales slip with that on the credit card, and to establish a fair policy of exchange or return of goods. With respect to the latter provision, the merchant does not exchange cash for goods purchased on credit. Instead, he prepares a credit voucher for the issuer and the cardholder. The merchant then includes all credit vouchers in his next deposit of sales slips. The issuer then credits the cardholder's account and charges the merchant's account.

On the other hand, since the issuer is the catalyst, he must bear the promotional burden of soliciting both merchants and cardholders in enough volume to assure the profitability of the plan. As for his contractual obligations, the issuer agrees to furnish all sales slips, credit invoices, credit cards and imprinters; he assumes the duty to investigate and approve credit ratings and the option to set floor limits; he may also reserve the right to audit the merchant's books. Most importantly, once the sales slips are accepted by the issuer, he accepts the responsibility for collection and assumes all credit risks, subject to certain exceptions. As compensation for services to the merchant, the issuer receives the discount and, in some circumstances, assesses an annual participation fee. Both parties usually agree upon some provision for termination upon notice, usually 30 days, except when the issuer can establish bad faith on the part of the merchant, whereupon termination will be immediate.


123 Uniform Commercial Code §§ 9-203 and 9-204 define what constitutes the creation of a security interest.

124 In many respects this requirement has little or no practical value. First, in many plans, a family member is permitted to use cards issued to another household member, making signature comparison impossible. Second, uneducated comparison does not reveal professional forgeries. The purpose is obvious, i.e., to create a standard of reasonable care in the hope of reducing the risk of loss from fraud. See Uniform Commercial Code § 3-406.

125 This procedure is necessary to prevent a customer from making a purchase, then returning the merchandise for cash, accomplishing, in effect, a credit card cash advance, without incurring the ordinary four percent service fee. Comment, Bank Credit Plans: Innovations in Consumer Financing, 1 Loyola U.L. Rev. 49, 68 n.46 (1968).

126 It is generally provided that the issuer will have recourse against the merchant when: (1) a bona fide dispute on the sale or delivery of merchandise exists between the merchant and the cardholder-purchaser; (2) the face of the card indicates that the card has expired prior to the date of the sale; (3) the merchant commits fraudulent acts; (4) the merchant makes a sale in excess of the floor limit without prior issuer authorization; (5) the merchant fails to obtain the signature of the purchaser on the sales slip; (6) the merchant fails to examine void lists distributed by the issuer prior to the date of sale; (7) the merchant neglects to use the imprinter; and (8) or when a counterfeit card is used. See generally Davenport, supra note 67, at 229.
2. Cardholder-Merchant

In most respects, the cardholder-merchant relationship is similar to a two-party plan. There is one important difference, i.e., the cardholder promises to pay the issuer rather than the merchant. When making a purchase, the cardholder presents his card to the merchant, who fills out a sales slip and imprints on it the card’s contents as well as the merchant’s name, address and account number. The cardholder then signs the sales slip and, after the merchant examines the signature and the “hotcard” lists, he receives a copy of the sales slip as evidence of the transaction. The cardholder’s signature demonstrates his acceptance to a bill of exchange drawn by the merchant on the purchaser in favor of the issuer; thus the cardholder, in effect, promises to pay the issuer. In determining whether or not the cardholder’s promise to pay the bank runs only to the bank as promisee or whether he also promises the merchant to pay the bank, it has been held that, since the cardholder’s signature operates as an acceptance to a bill of exchange drawn by the merchant, it is a promise to the merchant to pay the bank as well as a promise to the bank. The effect of this holding is to give the merchant a direct cause of action against the cardholder for breach of contract when there is nonpayment.

3. Issuer-Cardholder

Credit cards are issued today only upon application. This application normally embodies the terms of the agreement, which when signed and returned by the applicant, binds the cardholder. Cards are usually issued for periods of either six months or one year, renewable at the option of the issuer. The card itself is plastic with standard dimensions of 3 3/8 inches by 2 5/8 inches. The reverse side of the card usually sets out either a statement of the terms of the agreement or a provision to the effect that the cardholder agrees to comply with all the provisions of the agreement contained in the application, a copy of which is also returned with the card. In essence, the agreement specifies that the cardholder agrees to pay for all purchases made and all extensions of credit obtained by any person presenting the card, whether authorized or not; that the card

127 Prior to credit card legislation, most litigation in the credit card area involved what were known as “hot cards,” i.e., cards reported to the issuer as being lost or stolen. It should be noted that these “hot card” lists distributed to merchants were extremely long and very often disregarded by busy merchants, despite the duty to examine them imposed by the issuer-merchant agreement.

128 Note that the merchant is the drawer, the cardholder is the drawee, and the issuer is the payee. In a check transaction, the roles are reversed, the merchant becoming the payee, the cardholder the drawer and the issuer the drawee. Comment, Bank Credit Plans: Innovations in Consumer Financing, supra note 125, at 38 and n.47.

129 Id. at 58 & nn.49-50.

130 As of Jan. 25, 1971, unsolicited mass mailings of credit cards were prohibited. 15 U.S.C. § 1643 (1970); see text accompanying notes 242-55 infra.

131 When credit cards were permitted to be sent on an unsolicited basis, the issuer would include a copy of the agreement on the card, and, when the individual receiving the card signed and used it, there was an acceptance of the terms of the contract. However, the fact that the provisions of the agreement were embodied in small print on the reverse side of the card left open questions as to whether the cardholder had assented to the duties he purportedly accepted. For a general discussion of this problem, see Macaulay, Private Legislation and the Duty to Read, 19 VAND. L. REV. 1051 (1966).
remains the property of the issuer and is subject to repossession and revocation at any time; that the cardholder will not make any purchases in excess of his approved credit limit; and that he will release the issuer from all defenses, rights and claims he might have against the merchant. Although many cards contained an agreement to the effect that the cardholder has a duty to notify the issuer when his card is lost or stolen with his responsibility continuing until receipt of written notice by the issuer of the loss or theft, recently enacted legislation provides that cardholder liability for lost or stolen credit cards cannot exceed $50.\(^{132}\)

In the agreement, the cardholder authorizes the issuer to pay for all items purchased and all credit extended through use of the card. The issuer agrees to consolidate all purchases and extensions of credit on a monthly statement. Upon receipt of the statement, the cardholder has two options: he may pay the full amount within 25 to 30 days from the date the statement is mailed; or he may utilize a deferred payment plan,\(^{133}\) under which he will pay the greater of either a specified percentage of the full amount billed\(^{134}\) or a certain minimum charge\(^{135}\) within a similar period of time. Then the cardholder will pay the deferred balance in monthly installments and, in addition, any interest, service charges or credit investigation fees imposed upon the outstanding balance, not to exceed a certain percentage, ranging from \(\frac{3}{4}\) to 1\(\frac{1}{2}\) percent\(^{136}\) per month. The option of deferred payment contemplates the existence of “revolving credit.” In other words, when a cardholder is given a maximum credit limit, any balance owed is deducted, limiting the amount that the cardholder may obtain at any given time.\(^{137}\)

\(^{133}\)The revolving charge account option is not offered by all travel and entertainment card companies. Instead, they bill the cardholder on a monthly basis, payable on receipt.
\(^{134}\)Ordinarily five to ten percent.
\(^{135}\)Usually ten dollars.
\(^{136}\)Most credit card companies offering deferred payment plans today charge 1\(\frac{1}{2}\) percent, except where state law provides otherwise. During the early 1960's, a significant number of banks showing profits reported that they would have faced deficits if charges below 1\(\frac{1}{2}\) percent were required. It was thought that complete automation of merchant accounting, bank records, and billing, in addition to increased volume of participation would reduce costs enough that the service charge could be reduced below 1\(\frac{1}{2}\) percent. This has not been the case, however. *Bank Credit Cards Gaining Popularity*, *Financial World*, Jan. 4, 1961, at 7.

In summary, income from a credit card plan may flow from four sources: (1) discounts on merchant’s sales slips; (2) service and interest charges on deferred or revolving payment plans; (3) annual membership fees (travel and entertainment cards only); and (4) subscription and advertising revenue flowing from house organs, which some card programs issue. For example, suppose X Bank accepts applications for 200,000 cards and charges a five percent discount on gross total billings. If each person charged $50 per month and remitted slightly after the no charge payment period, total gross billings for one month would be $10 million (5 percent \(\times\) 200,000 cards). Income from the discount would be $500,000 (5 percent \(\times\) $10,000,000), while income on service charges would amount to $150,000 (1\(\frac{1}{2}\) percent \(\times\) $10,000,000). Thus, total gross income would be $650,000. If expenses due to start-up costs, administrative overhead and charge-offs could be held to 5 percent of total billings (a reasonable amount), net profits of $150,000 a month could be anticipated. This, of course, does not take into account possible income emanating from membership fees and advertising revenue not reflected in the above example. *Banks Bet on Cards*, Burroughs Clearing House, Nov. 1965, at 28, 30.

\(^{137}\)For example, suppose a cardholder having a credit limit of $200 makes purchases in one month totaling $150. If he elects to pay on revolving credit, he pays 10 percent or $15 after the first month’s statement. No service charge is assessed at the end of the first month. During the next month he will be limited to only $85 in purchases. If he charges $50 of merchandise, at the end of the month he will have an outstanding balance of $187.02. The 1\(\frac{1}{2}\) percent charge will be computed on the balance exhibited on the prior month’s statement ($150) less
An examination of the relatively few cases dealing with the consumer's civil liability for unauthorized purchases made on his credit card, coin, or plate\textsuperscript{138} indicates that the courts, in most instances, based their determinations upon their view of the function of the credit device. As that device became more common and sophisticated, the responses of the courts changed and developed. The case law in this area can be categorized according to four such responses, representing successive stages of that development. The earliest cases involved credit arrangements which included \textit{no written agreement}. Later cases, which arose before the credit card boom of the 1960's,\textsuperscript{139} turned on \textit{strict contracts} of liability printed on or accompanying the credit card. Then, with the advent of the credit card boom which made the device a significant force in the economy, cases began to turn on policy considerations: one school of thought focused upon the value of the credit card to the business world as a tool of \textit{economic policy}; another slowly developed an awareness of the credit card's significance to the consumer, determining the question of civil liability by a \textit{balancing of consumer v. business interests}. The former policy resulted in a refusal by the courts to place too great a duty of care upon the issuer. Courts embracing the latter policy came ultimately to require of the issuer a high duty of care.

1. No Written Agreement

The courts were confused as to the nature of the first credit coins. Such devices were uncommon; they were typically used as a means of extending credit, but they were issued without any written agreement between the parties. The first reported case, \textit{Wanamaker v. Megary},\textsuperscript{140} evinces this confusion. The court used a negotiable instrument theory to find the owner of a credit coin liable for unauthorized purchases. It reasoned that the coin was the equivalent of a note payable to bearer and that, as between two "innocent"\textsuperscript{141} parties, the owner, whose negligence had made the loss possible, should bear responsibility.\textsuperscript{142}

This interpretation was soon refuted and replaced by another when the court in \textit{Lit Bros. v. Haines}\textsuperscript{143} rejected the analogy to a negotiable instrument because it rested "upon an assumption which an examination of the coin does not warrant, for it has none of the requisites of a negotiable instrument, for title to it cannot pass by delivery like securities payable to bearer. . . ."\textsuperscript{144} Instead, the court considered all the circumstances of this particular arrangement
and concluded that the coin was intended to function simply as a means of identification. Those circumstances were that the defendant had been a credit account customer of the plaintiff before the plaintiff began issuing credit coins and that, when the defendant became a charge customer, the plaintiff issued to her an identification coin bearing the number of her account with the plaintiff.\textsuperscript{145} The coin was stolen by a workman who used the defendant's name and address and had goods sent to his own address. The defendant "was ignorant of the fact that any one producing her coin at plaintiff's store and giving her correct name and address could obtain goods and have them sent to some address other than the defendant's."\textsuperscript{146} Consequently, there were no facts upon which the court could infer an agreement between the parties, and, since the function of the coin was identification, the defendant could not be held liable for unauthorized purchases: 

\begin{quote}
[T]o give [the coin] any more effect than it purports on its face to be, an identification of the person to whom it was issued, there must be some proof that between the issuer and the acceptor it was intended to have a further purpose not disclosed on its face.\textsuperscript{147}
\end{quote}

The next reported case, \textit{Wanamaker v. Chase},\textsuperscript{148} applied the same type of reasoning to a different set of circumstances to find the customer liable for unauthorized purchases. The court described the coin as a store coin or token entitling the defendant to credit.\textsuperscript{149} Since the parties had made no express agreement as to responsibility for unauthorized purchases and since the coin was meant to function as a means of extending credit, the court examined the nature of the arrangement to establish "the exact relation in which the parties dealt with each other"\textsuperscript{150} and thus determine the liabilities of the parties: 

\begin{quote}
[T]he defendant had applied for and received from the plaintiff a store "coin" or token, with the understanding that upon presentation thereof in any department of the store she was entitled to purchase goods upon credit. . . . But what is still more important, any one presenting the token and giving the name of the defendant could purchase goods upon her credit. The defendant . . . knew . . . this to be the effect of the possession of the coin and . . . had availed herself of the fact by permitting members of her family and a family servant to use the coin in the purchase of goods in her name . . . and . . . had paid the bills.\textsuperscript{151}
\end{quote}

These findings, that the coin entitled one to receive credit, that the defendant knew the coin could be used by another, and that she had in the past authorized others to make purchases, resulted in the court's conclusion that the defendant was liable for the unauthorized purchases.

\textsuperscript{145} \textit{Id.} at 658-59, 121 A. at 131.
\textsuperscript{146} \textit{Id.} at 659, 121 A. at 131.
\textsuperscript{147} \textit{Id.} at 660, 121 A. at 132.
\textsuperscript{148} 81 Pa. Super. 201 (1923).
\textsuperscript{149} \textit{Id.} at 202.
\textsuperscript{150} \textit{Id.} at 205.
\textsuperscript{151} \textit{Id.}
Gulf Refining Co. v. Plotnick,\textsuperscript{152} decided in 1935, is perhaps the best early example of a court's basing the question of liability upon its own interpretation of the specialized function of a credit device. The customer's charge-a-plate had been stolen. He was fully aware that it could be used by anyone presenting it, yet neglected to notify the issuer of its theft. In holding the customer responsible for unauthorized purchases, the court stressed that the charge-a-plate functioned neither as a negotiable instrument nor as a simple means of identification. Rather, it represented something of value and thus required that the customer treat it with due care.\textsuperscript{153} The customer had ignored this "implied contract of due care," and thus was responsible for the resulting loss.

The final two no-contract cases are quite recent and, not surprisingly,\textsuperscript{154} more consumer oriented than the older cases in their refusal to bind a cardholder for unauthorized purchases where he had not expressly agreed to promptly report the card's loss or theft. In Thomas v. Central Charge Service, Inc.,\textsuperscript{155} the defendant testified that he had used his card only once, without having signed it, and had thereafter been unable to find it. He assumed it had been lost but had neglected to report the loss to the plaintiff and denied having made any of the purchases in question.\textsuperscript{156} The court examined the nature of the credit arrangement and found that the application contained "no contractual language of any kind and no reference to any duty or obligation on the part of the customer with reference to the use of the charge plate. . . ."\textsuperscript{157} Since that language made no allusion whatsoever to possible liability for unauthorized use, the court ruled that liability "could arise, if at all, only by implication."\textsuperscript{158} However, the court refused to so infer:

We do not think, however, that a promise to pay for unauthorized purchases, restricted even to purchases made prior to notifying the company of the card's disappearance, can fairly be implied from the described relationship between these parties. At most, it may be said by implication that Thomas agreed to exercise due care in the use of his card. And while he perhaps failed in that agreement, it is plain that such failure is insufficient to support this action.\textsuperscript{159}

In so finding, the court declined to follow Gulf Refining Co. v. Plotnick,\textsuperscript{160} in which liability had been based upon an implied contract to honor the card properly and with due care. Furthermore, the court refused to follow that reasoning which would attach liability to the customer as the one of two innocent parties whose negligence most contributed to the loss. Liability, it ruled, must be based

\textsuperscript{152} 24 Pa. D. & C. 147 (1935).
\textsuperscript{153} Id. at 150.
\textsuperscript{154} In the absence of contract terms defining the duties of the parties, courts looked at all the circumstances to determine the question of liability. These last two cases were decided in the 1960's after consumerism had become a significant factor, a circumstance to be considered.
\textsuperscript{155} 212 A.2d 533 (D.C. App. 1965).
\textsuperscript{156} Id. at 533-34.
\textsuperscript{157} Id. at 534.
\textsuperscript{158} Id.
\textsuperscript{159} Id.
\textsuperscript{160} 24 Pa. D. & C. 147, 150 (1935).
upon an express agreement by the customer to promptly report a lost or stolen credit card.\footnote{161} Continuing this approach, the most recent no-contract case, \textit{Rayor v. Affiliated Credit Bureau, Inc.},\footnote{162} also refused to hold a customer liable for unauthorized purchases in the absence of a contract defining the duty to notify the issuer of loss or theft of the card. A lower court had found the customer liable, stating: "It's the same as cash, as far as the court is concerned. . . . [T]his is just like a dollar bill, or five dollar bill. If you lose it and you can't find it, then you are responsible."\footnote{163} On appeal, however, this analogy to cash was rejected, and the court held that, in the absence of some factor such as negligence, bad faith, or estoppel,\footnote{164} a finding of consumer liability for unauthorized purchases requires some contractual obligation.

This first group of cases establishes that the courts, in the beginning, disagreed as to the nature of the credit card or coin. Since there was no contract defining the rights and duties of the parties, the courts necessarily based their determinations upon the circumstances of each case—the type of coin or card involved, the parties' understanding of the arrangement, the way in which the coin or card had been used in the past by the parties. Because of the relative insignificance of the credit device,\footnote{165} there was no discussion of considerations of policy—the credit card was as yet simply not important enough to merit policy consideration. Instead, uncertainty led the courts to reason by analogy—the credit card was like a negotiable instrument, or cash, or simply a means of identification. The result was an inconsistency of treatment which led the credit card issuers to define their own duty and that of their customer by means of contract.

2. Strict Contract

The early cases involving notice or surrender agreements were construed strictly according to the terms of the contract. The courts were little concerned with any factors other than compliance with those terms. The credit card boom would not take place until the 1960's\footnote{166} and the credit card was still neither common enough nor well-enough understood by the courts to justify any deviation from the contract terms.

In the first of these cases, \textit{Jones Store Co. v. Kelly},\footnote{167} there was conflicting testimony as to the existence of an agreement placing upon the customer responsibility for all purchases made with the credit coin. The plaintiff claimed, and the jury apparently believed, that the defendant had promised to notify the plain-

\footnotesize{\begin{itemize}
\item \footnote{161} 212 A.2d at 534.
\item \footnote{162} 169 Colo. 353, 455 P.2d 859 ('1969).
\item \footnote{163} \textit{Id.} at 355, 455 P.2d at 860.
\item \footnote{164} \textit{Id.} at 356, 455 P.2d at 860. The holding in \textit{Rayor} does not seem to be quite as broad as that in \textit{Thomas} since \textit{Rayor} implies that negligence might change the result. \textit{Thomas}, it will be remembered, held that the customer's absence of due care was insufficient to support liability. \textit{See} text accompanying note 159 \textit{supra}.
\item \footnote{165} \textit{See} chart accompanying note 113 \textit{supra}.
\item \footnote{166} \textit{Id}.
\item \footnote{167} 225 Mo. App. 833, 36 S.W.2d 681 (1931).}
\end{itemize}}
tiff if the coin were lost.\textsuperscript{168} Furthermore, there was some evidence that use of the coin by the third party had in fact been authorized. Consequently, the appellate court felt that the jury could have reasonably concluded that, since the defendant did not notify the plaintiff of the coin’s loss, the coin had not been lost, and that the defendant had authorized the third party to make purchases with it. Here, the defendant was held responsible for the purchases even though the purchase slips were signed “Mrs. Kelly” and the plaintiff knew the defendant to be unmarried.\textsuperscript{169} The appellate court focused only upon the notification agreement and the evidence of authorization without considering the possibility that the plaintiff might have been negligent in not investigating the authority of the actual purchaser whom it allegedly knew to be someone other than the defendant. The court strictly applied an agreement freely undertaken.\textsuperscript{170}

The next of these cases, \textit{Magnolia Petroleum Co. v. McMillan},\textsuperscript{171} involved a surrender agreement. In finding the cardholder liable for purchases made by one who, after borrowing the card, had abused his authority by making unauthorized purchases, the court considered only the language of the agreement: “The named holder shall be responsible for all purchases made by use of this card, prior to its surrender to the issuing company, whether or not such purchases are made by the named holder or into the car described.”\textsuperscript{172} The court did not discuss the possibility of negligence by either party. Rather, the defendant was held liable because he had “obligated himself to be responsible for all purchases made by the use of the card,”\textsuperscript{173} an obligation which he had freely undertaken and which he was bound to honor.

The final case in this group, \textit{Socony Mobil Oil Co. v. Greif},\textsuperscript{174} refused to place responsibility on the customer for unauthorized purchases made by his wife after their separation because of his strict compliance with the terms of the notice agreement, which provided that: “This card is valid until expired or revoked. Named holder’s approval of all purchases is presumed unless written notice of loss or theft is received.”\textsuperscript{175} The issuer contended that the defendant should be responsible for all purchases until the cards were surrendered. The court, however, disagreed since the contract clearly provided that \textit{notice} of loss or theft was sufficient to shift responsibility from the customer to the issuer. The issuer was precluded from demanding surrender of the cards because such a requirement appeared neither on the card nor on the application. Since the defendant had given timely notice of his wish to close the account, he had satisfied his responsibility. The court refused to require more of him than this contractual compliance.

This group of cases represents an intermediate position in the courts’ treat-
ment of the credit card. The inclusion of a contract in the credit arrangement provided the courts with a definite criterion for determining questions of liability—certainly an advance over the earlier situation when the lack of such a criterion made analogy to the negotiable instrument, or to cash, or to the letter of credit necessary. However, these cases were decided before the credit card industry had developed into a really significant factor in the economy, an eventuality which was to have an impact on the courts’ treatment of the liability issue.

3. Economic Policy

A third line of cases directly reflects the post-1960 credit card boom which greatly increased the significance of the credit card to the economy. As a result of this boom, some courts, as a matter of policy, concluded that, since the function of the credit card was an economic one (stimulation of sales), the credit card issuer should not be held to too high a duty of care lest the economy suffer. This policy was first enunciated in *Texaco, Inc. v. Goldstein*, 177 decided in 1962. The court first found it necessary to attempt a distinction of *Union Oil Co. v. Lull*, 178 which had reasoned that, since the position of the credit card customer was analogous to that of a gratuitous indemnitor, the issuer had a “duty to use reasonable diligence” in the transactions where the credit card was used. 179 The distinction was based on the wording of the credit agreements. Unlike the *Lull* defendant who had guaranteed payment, the *Goldstein* defendant merely assumed full responsibility for payment 180 and was not, therefore, an indemnitor (gratuitous or otherwise) of the issuer. It followed then, inferentially at least, that the issuer did not owe his customer this same duty of reasonable diligence.

Instead, the customer was bound by the terms of the agreement which he had accepted by his use of the card:

> Such person, corporation or firm assumes full responsibility for all purchases made hereunder by anyone through the use of this credit card prior to surrendering it to the company or giving the company notice in writing that the card has been lost or stolen. 181

These terms appeared reasonable to the court 182 in that they complied with state law which expressly validated such provisions so long as they were conspicuously printed. 183 Moreover, reasons of economic policy dictated that the court strictly

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176 Note, Credit — Credit Cards — Civil and Criminal Liability for Unauthorized or Fraudulent Use, 55 Notre Dame Lawyer 225 (1960).
179 Id. at ......, 349 P.2d at 250.
180 34 Misc. 2d at 752, 229 N.Y.S.2d at 53.
181 Id.
182 The *Lull* case also thought the arrangement, a sharing of responsibility for loss, to be reasonable, but that court required the issuer to first fulfill its own duty toward the customer before enforcing its agreement. Union Oil Co. v. Lull, 220 Ore. at ......, 349 P.2d at 253.
183 A provision to impose liability on an obligor for the purchase or lease of property or services by use of a credit card after its loss or theft is effective only if it is conspicu-
bind the customer by the terms of his agreement but that a high duty of care not be imposed upon the card issuer:

With the increasing use of the credit card, and its growing importance to the economy, the imposition of a high duty of diligence upon the major oil companies in general, most of whom use the same or similar system of credit card transactions, would result in an impairment of an important segment of our economic structure.\(^{184}\)

The court explained that since the issuer had no control over its dealers, who were independent contractors, the negligence of the cardholder became paramount. Had the defendant lost cash instead of a credit card, he alone would bear the loss. Having lost the latter, however, he was partially protected since the issuer was "willing" to share the risk with him.\(^{185}\) Consequently, the defendant was liable for the unauthorized purchases.\(^{186}\)

In *Read v. Gulf Oil Corp.*,\(^{187}\) the credit cardholder complied with the notice agreement by informing the issuer of the theft of his credit card before any purchases were made and was therefore not liable for the unauthorized purchases.\(^{188}\) The case is relevant not simply because it demanded strict compliance with the terms of the agreement, but also because of the court's reliance on reasons of economic policy:

The use of credit cards has become a way of life to millions of Americans. . . . The ease with which a credit card can be obtained and the ease with which the cards are honored present some risks. . . . When there is no evidence of negligence on the part of any of the parties, the courts should enforce the terms of the contract in accordance with normal contract principles. . . . Should the courts not take this position . . . the credit card will no longer be a convenience to the issuer and the merchant and the commercial world will lose one of its greatest innovations.\(^{189}\)

The court did not define what would constitute evidence of negligence on the part of the issuer, but it seems logical to assume that, given its concern over the possibility of the commercial world's "losing one of its greatest innovations," the *Read* court would probably agree with *Texaco, Inc. v. Goldstein* in refusing to impose upon the issuer a high duty of care.

\(^{184}\) 34 Misc. 2d at 754, 229 N.Y.S.2d at 55 (emphasis added).
\(^{185}\) Id. at 755, 229 N.Y.S.2d at 55.
\(^{186}\) Id. at 756, 229 N.Y.S.2d at 56.
\(^{188}\) Id. at 23, 150 S.E.2d at 320.
\(^{189}\) Id. at 22, 150 S.E.2d at 320, quoting Comment, *The Lost Credit Card: The Liability of the Parties*, 30 Albany L. Rev. 79, 89 (1966).
The most recent "economic policy" case is Uni Serv Corp. v. Vitiello.\textsuperscript{190} Uni Serv followed Texaco, Inc. v. Goldstein in holding a cardholder liable for unauthorized purchases, in finding that the notice agreement involved was reasonable and was in accord with the state law requiring conspicuous printing of such warnings, and in requiring the cardholder to treat his credit card at least as carefully as he would his currency.\textsuperscript{191} Unlike the Goldstein court, however, the Uni Serv court was confronted with a question of possible negligence on the part of the card issuer. The cardholder had asked that his credit be limited to $250, yet over $700 of unauthorized purchases had been made. The court, however, ignored the possibility that the card issuer might have been negligent in disregarding the defendant's credit limit, reasoning that had the defendant himself made the purchases, not a thief, he could not deny his liability for amounts greater than $250 based on the $250 credit limit.\textsuperscript{192} The court's reasoning was consistent with Goldstein in concentrating on the cardholder's, rather than the issuer's, duty. Moreover, it might be said that the decision went beyond its predecessor in its apparent refusal to hold the issuer to even a normal duty of inquiry.\textsuperscript{193}

The economic policy as defined by Texaco, Inc. v. Goldstein was perhaps not unreasonable in 1962. The arrangement by which the parties agreed to share the risk of loss—the customer assuming it before notice and the issuer assuming all loss after notice—seemed equitable as long as the card's benefits were being truly shared. The card issuer was extending credit to the cardholder and the cardholder was buying the issuer's products, or the products of the issuer's member merchants. However, by the late 1960's, the benefits were no longer being equally shared; the credit card was more than a sales stimulant. Most issuers were charging 11/2 percent interest per month for delays in payment; the retailers were paying a discount of from two to seven percent to the issuer for the privilege of using the card and passing the payments on to the consumer.\textsuperscript{194} Easy credit was leading consumers to overspend, to buy more than they normally would with cash and, in numerous instances, more than they could reasonably afford.\textsuperscript{195}

The credit card industry had developed to the point where a strict sharing of the risk of loss was simply inequitable since the card's benefits were no longer being equally shared. Those courts applying the Texaco, Inc. v. Goldstein economic policy doctrine in the late 1960's failed to reflect this fact. Some courts did, however, react to the changes within the industry. They too reflected a policy consideration, but a different, more realistic policy of balancing the bene-

\textsuperscript{190} 53 Misc. 2d 396, 278 N.Y.S.2d 969 (1967).
\textsuperscript{191} Id. at 398, 278 N.Y.S.2d at 971.
\textsuperscript{192} Id. at 399, 278 N.Y.S.2d at 972.
\textsuperscript{193} In addition to the issuer's allowing the dollar amount of purchases to greatly exceed the customer's credit limit, the issuer allowed a large number of purchases to be made in only four days. Id. at 397, 278 N.Y.S.2d at 970. A different court might have considered the issuer's lack of suspicion of this abnormal account activity to be evidence of negligence. \textit{See} text accompanying note 225 infra.
\textsuperscript{194} \textit{See} text following note 121 supra.
\textsuperscript{195} \textit{Hearings on S. 721 Before the Subcomm. on Financial Institutions of the Senate Comm. on Banking and Currency, 91st Cong., 1st Sess. 44} (1969).
fits received by each party to the credit card arrangement in order to determine each party’s responsibilities.


This final line of cases balanced the interests of the businessman and the consumer and gradually came to impose an affirmative duty of diligence upon the card issuer to protect the consumer. Failure to meet that duty resulted in unenforceability of liability provisions. The issuer’s duty varied from case to case, but, in general, it became more pronounced as the credit card become more common.

A case which is not properly within this group but which can be described as one of its precursors is *Gulf Refining Co. v. Williams Roofing Co.*,198 in which the cardholder was held not liable for unauthorized purchases because of the gross carelessness of the issuer, Gulf. The defendant had applied for and received eight credit cards, one for each of his business trucks. He had typed on the cards the words: “Good for Trucks only.” An employee of a Gulf dealer failed to return one of the cards to the defendant’s employee, telling him that the card would be returned by mail. Thereupon, the dealer’s employee embarked upon a 90-day spending spree with the card.197 Gulf contended that the defendant should be liable for the unauthorized purchases because of the card agreement by which “the registered holder assumed full responsibility for payment for all merchandise or services obtained on credit by any person through its presenta-

"tion. . . ."198 The court disagreed, reasoning that the broad nature of the agreement necessarily implied that the person extending credit would do so “in good faith, in accordance with the provisions of the card and subject to any limitation appearing on the face of the card.”199 Numerous instances of bad faith on the part of the plaintiff’s dealers indicated that this was not done:

The forger was at all times driving a 1934 Plymouth coach passenger automobile. . . . *Some of the dealers knew the forger* and he had lived in several of the towns where purchases were made. Tires were sold for a passenger automobile and in some cases of a different size than was required by the vehicle the forger was driving. One dealer sold him two radios, one for his car and the other for his house, which were charged as tires and gasoline and the house radio was never delivered. In several instances cash was delivered upon false invoices made out for merchandise.200

The *Gulf Refining Co.* court did not, in fact, define a standard of duty for the issuer; it merely ruled that the gross carelessness201 of the plaintiff’s agents precluded the plaintiff from enforcing the contractual liability clause. No court attempted to define such a standard until 1960. In that year the Supreme Court

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196 208 Ark. 362, 186 S.W.2d 790 (1945).
197 *Id.* at 364-65, 186 S.W.2d at 792.
198 *Id.* at 364, 186 S.W.2d at 792.
199 *Id.* at 369, 186 S.W.2d at 794.
200 *Id.* at 365, 186 S.W.2d at 792-93 (emphasis added).
201 - *Id.* at 368, 186 S.W.2d at 794.
of Oregon, in Union Oil Co. v. Lull, considered the cardholder's promise to indemnify the issuer in the light of the respective economic benefits conferred upon each to conclude that the plaintiff had a duty of reasonable inquiry to protect the defendant cardholder:

In determining the liability of the indemnitor in this case we may consider the fact that he is not engaged in the indemnity business, and therefore without the opportunity to calculate his risks and charge a premium accordingly. The defendant is essentially a gratuitous indemnitor, the only consideration moving to him being the convenience of the use of the credit card. It is to be noted that the plaintiff has likewise received a benefit consisting of adding another potential customer for the sale of its products by facilitating purchases through the convenient use of credit.

Since the cardholder was conferring an essentially gratuitous benefit upon the issuer, there was an implied promise on the part of the issuer, the indemnitee, "to exercise reasonable diligence to protect the indemnitor in transactions which may create . . . liability." Nonetheless, the court did consider the particular liability contract reasonable. All the cardholder had to do to protect himself was to treat his card carefully and to keep track of its whereabouts so that he might fulfill his duty of prompt notification of its loss or theft. But the court also demanded that the issuer, in order to enforce the contract, prove its own compliance with a duty of inquiry which would arise whenever there were circumstances sufficiently suspicious to lead a reasonable man to make inquiry. Here, such a circumstance was the fact that the imposter was driving a car with Idaho license plates while the credit card showed an Oregon address. The plaintiff, having failed to make a sufficient inquiry, was precluded from charging the defendant with a breach of his duty of notice.

This case was the first to base liability upon a balancing of the correlative duties of the parties in light of the respective benefits conferred upon each by the credit card. The cardholder had the duty of caring for his card and giving prompt notice of its loss or theft. The issuer had the duty of making reasonable inquiry whenever confronted with suspicious circumstances. Later cases continued to recognize the issuer's duty, but broadened its scope by defining additional circumstances under which the obligation to make inquiry would arise.

In Humble Oil and Refining Co. v. Waters, the defendant had authorized a third party, Romby, to make some purchases with her card. Later, she regained the card and withdrew the authorization. Romby then phoned the plaintiff issuer's credit division, identified himself as the defendant, and asked that a replacement card be sent to the defendant's address. Romby stole the card from

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203 Id. at . . . ., 349 P.2d at 250.
204 Id. at . . . ., 349 P.2d at 254.
205 Id. at . . . ., 349 P.2d at 249-50.
206 Id. at . . . ., 349 P.2d at 250.
207 Id. at . . . ., 349 P.2d at 258.
208 Id. at . . . ., 349 P.2d at 253.
209 Id.
210 159 So. 2d 408 (La. App. 1963).
the defendant's mailbox and charged numerous unauthorized purchases.\textsuperscript{211} He later attempted to reassure the plaintiff that the bills would be paid by phoning the plaintiff's representative and informing him that payment would be delayed because "rains had prevented the use of heavy machinery from bringing timber out of the woods."\textsuperscript{212} The court held the issuer responsible for the purchases because it had clearly contributed most to the loss. This determination resulted from the failure of the issuer to make inquiry\textsuperscript{213} when confronted with factors clearly suggestive of fraud, \textit{viz.}, the male caller had identified himself as a logger, but the issuer had actual and constructive knowledge that the cardholder was a female schoolteacher.\textsuperscript{214} When viewed as an extension of the \textit{Lull} balancing principle, the significance of this decision is lessened somewhat because of the defendant's lack of fault and her ignorance of the duplicate credit card's existence. However, \textit{Waters} provided additional support for the then emerging doctrine that the card issuer's right to enforce the indemnity agreement could be defeated by carelessness.

The card issuer's duty of care was further defined in \textit{Allied Stores v. Funderburke}\textsuperscript{215} where the issuer failed in his attempt to attach liability to the cardholder because of the issuer's lack of care in allowing 237 purchases in a one-month period without making inquiry. In reaching its decision, the court first had to distinguish both statutory\textsuperscript{216} and case\textsuperscript{217} law. The statute, the purpose of which was to make fine-point contractual provisions unenforceable, provided that agreements, by which the cardholder accepted responsibility for all purchases made before notice to the issuer of the card's loss or theft, were effective if the warning was printed in 8-point type. The arrangement in question complied with this provision. But the court interpreted the statute to apply only to cases in which the cardholder had knowledge of the card's loss or theft, reasoning that it would be illogical to require the cardholder to give notice of an event (loss or theft of his card) of which he was totally ignorant.\textsuperscript{218} If the defendant did not know of the card's loss or theft, he certainly could not comply with the statute. Therefore, the court reasoned, the statute was inapplicable, and it could proceed on common law principles, \textit{viz.}, that there can be no liability without fault and that as between two innocent parties, the one making the loss possible should bear responsibility. \textit{Texaco, Inc. v. Goldstein} was distinguished because that case involved the more complex tripartite credit card arrangement\textsuperscript{219} in which the issuer's representative "had no reason to question the presentation of the card by its larcenous holder"\textsuperscript{220} while the present situation involved a bipartite ar-

\begin{thebibliography}{99}
\item \textsuperscript{211} Id. at 409.
\item \textsuperscript{212} Id.
\item \textsuperscript{213} Id. at 410.
\item \textsuperscript{214} Id. at 409.
\item \textsuperscript{215} 55 Misc. 2d 872, 277 N.Y.S.2d 8 (1967).
\item \textsuperscript{217} Texaco, Inc. v. Goldstein, 34 Misc. 2d 751, 229 N.Y.S.2d 51 (1962), aff'd, 39 Misc. 2d 552, 241 N.Y.S.2d 495 (1963) (discussed supra).
\item \textsuperscript{218} 52 Misc. 2d at 875, 277 N.Y.S.2d at 11-12.
\item \textsuperscript{219} See text accompanying notes 120-37 supra for a definition of the tripartite arrangement.
\item \textsuperscript{220} 53 Misc. 2d at 878, 277 N.Y.S.2d at 14.
\end{thebibliography}
rangemente in which the plaintiff should have been suspicious of the unusual activity in the defendant’s account. The plaintiff, in failing to notice that activity, had failed in its duty toward the defendant and had allowed its customer’s credit status to be abused.

By applicable common law, while there is a duty on the part of the credit card holder to exercise reasonable care over the said card, there is a concurrent obligation . . . at least in a bipartite relationship to protect its customer from the imposition of unjust charges.

A 1969 Texas case, *Sears Roebuck and Co. v. Duke*, adopted this rationale and similarly extended the issuer’s duty of care to encompass notice of unusual account activity. The defendant, a Texas salesman, had lost his credit card while in New York. $1,200 worth of unauthorized purchases was made before the cardholder realized his card was missing. The court, while acknowledging that the defendant had a duty to guard his credit card as he would his currency, nevertheless recognized the obligation of the card issuer to take notice of and deal with questionable activity. “Many purchases were made in the same stores, and one New York area store inquired of the Lubbock store as to Duke’s credit standing in connection with one large purchase without any question being raised about the irregularity.” Having failed in its duty to investigate excessive account activity, Sears was precluded from enforcing its liability agreement against the salesman.

The most recent case, *Lechmere Tire & Sales Co. v. Burwick*, was decided in January, 1972. An imposter had used the defendant’s credit card to make 15 unauthorized purchases totaling $611 in 1967. The Supreme Judicial Court of Massachusetts, after noting that the credit card was beneficial to the issuer as well as to the cardholder, stated that the customer could “fairly expect the issuer to use due care to prevent his card’s use by imposters:

[The preferable rule is that requiring the issuer of a credit card, or one extending credit on the basis of the card, to use due care to ascertain that the person using the card is its proper holder or one authorized to use it. The obligation is not merely to use good faith. . . . The use of due care in the circumstances also is necessary.]

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221 See text accompanying notes 119-20 supra for a definition of the bipartite arrangement.
222 52 Misc. 2d at 878, 277 N.Y.S.2d at 15.
223 The court made a bipartite-tripartite distinction with respect to Texaco, Inc. v. Goldstein, inferring that the less complicated bipartite system required of the issuer a greater duty of care. However, it imposed upon Allied Stores more than a high standard. It imposed an impossible standard in that Allied’s data processing equipment was simply inadequate to pick out unusual activity in a customer’s account within a 30 day period. Thus, the distinction between Goldstein and Allied Stores appears to be one of policy.
224 52 Misc. 2d at 879, 277 N.Y.S.2d at 16.
225 441 S.W.2d 521 (Tex. 1969).
226 Id. at 524.
227 Id. at 525, 527 N.E.2d 503 (1972).
228 The incident took place before Massachusetts acted to limit liability for unauthorized purchases to $100.
229 Id. at 527, 527 N.E.2d at 506.
230 Id.
231 Id. at 507.
The issuer had neglected to compare the defendant's signature on the credit card name panel with those on the invoices, several of which had been misspelled. The customer could reasonably have expected the plaintiff to check the identity of the card user at least to the extent of comparing signatures. Its failure to do so constituted strong evidence of negligence.\(^\text{232}\)

This final case represents the logical culmination of the interest-balancing approach which began with *Union Oil Co. v. Lull*. These cases first established and then broadened the card issuer's duty to investigate unusual or suspicious circumstances. Their net effect was to more frequently absolve the cardholder of liability for unauthorized purchases.

The above four categories of cases each reflected a distinct stage in the development of the credit card industry. When the industry was in its infancy, the courts had no contract upon which to rely. Consequently, it was perfectly reasonable to interpret the various credit devices by analogy to more familiar devices. Later, when the still unfamiliar credit card arrangement was endowed with contract terms by the industry, the courts felt no need to consider anything except those terms. After the early 1960's when the credit card had become much more commonplace and had taken on a new economic significance, the courts had to consider that factor as a new element in their determinations. Certain courts stressed the card's importance to the economy. Others stressed its overall importance, i.e., its value to the consumer as well as to the businessman.

The evolution of the credit card is approaching another stage, the Less-Check concept, a development in which the "money card" will come to constitute a new payments system. Consistent with this development, new laws have been enacted and are being proposed to ease the consumer's transition into the credit card economy.

**D. Legislation**

In the past several years Congress, the Federal Trade Commission, and various state legislatures have attempted to regulate the credit card industry so as to shield the consumer from some of the more harmful effects of the industry's spectacular growth. This regulation is a reflection of both the trend toward consumerism and the realization that the credit card has developed to the point where it is becoming a substitute for the check in many transactions, a substitute which lacks the traditional check safeguards. Those safeguards are being gradually provided by a series of regulations and statutes which should eliminate some of the frustrations connected with today's credit card and ease the consumer's transition to the money card of the Less-Check Society.

1. Unsolicited Credit Cards

The Federal Trade Commission undertook the first national regulation of the credit card industry in a ruling (later superseded by Congressional action)\(^\text{233}\)

\(^{227}\) See id. at ....., 227 N.E.2d at 507.

\(^{233}\) See text accompanying note 242 infra.
which declared the mailing of unsolicited credit cards to be an unfair trade practice. In so ruling, the FTC weighed the interests of both the consumer and the industry. The Commission decided that the consumer's convenience was the determining factor, rejecting the strenuous arguments of the industry which considered the mailing of unsolicited credit cards to be the only way of entering into and expanding the business. It saw use of the credit card to be "intimately related" to the well-being of the consumer. The practice of sending unsolicited credit cards had resulted in inconvenience and hardship for the consumer. He was sometimes billed for unauthorized purchases as a result of misappropriation of an unasked-for credit card. His credit rating might be jeopardized. Even if an unwanted card did arrive safely, he would be put to the inconvenience of sending it back or destroying it. And even having destroyed the card, an account, which might result in billing errors, would have been established in his name. Theft of the cards created law enforcement problems. In spite of these considerations, the industry argued that the practice was necessary as a marketing technique, an argument that the Commission rejected:

To argue efficiency from a marketing standpoint and to ignore the abuses arising from the marketing technique, however efficient it may be, is to neglect the balancing of the equities, the right to promote vis-a-vis the right to be secure from solicitations which create personal problems, contribute to law enforcement difficulties, and generally are disliked by a significant portion of the public for the nuisance they become, and the fear of what problems could arise for them because of the mailing of unsolicited credit cards.

This defense of consumer interests can be seen as an extension of the interest-balancing policy of Union Oil Co. v. Lull which continues to influence various law making bodies and agencies.

2. Loss or Theft of Credit Cards

The Federal Trade Commission's initiative was superseded by an amendment to the Truth-in-Lending Act which prohibited the mailing of unsolicited credit cards, limited the cardholder's liability to $50 in case of unauthorized use of his card, and put the burden of proof on the card issuer to enforce that limited

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The mailing by marketers of products or services or by others of unsolicited credit cards constitutes an unfair method of competition and an unfair trade practice in violation of section 5 of the Federal Trade Commission Act: provided, however, that nothing in this rule should be construed to prohibit the mailing of credit cards which are renewals, substitutions, or replacements of cards expressly requested, expressly consented to, or accepted prior to the effective date of this rule through use by the holder.

236 Id. at 4620.
237 Id.
238 Id.
239 Id.
240 Id.
241 Id. at 4621.
liability. Proponents of the legislation made clear that such consumer protection was required as a result of the explosive growth of the credit card industry and the development toward “a credit card economy.” Their intent was to safeguard the consumer by setting ground rules for the largely unregulated credit card industry in anticipation of that credit card economy:

In net effect, these provisions confer on consumers the protection they now enjoy in the use of checks. . . . If we are in fact moving toward a so-called checkless society, these provisions are especially important. The credit card could be a trump card played by lenders in anticipation of the day when our customary check protections become extinct.

Opponents of the legislation were little concerned with the provision which limited customer liability, but expressed considerable dissatisfaction with the provision which prohibited unsolicited mailings of credit cards. They apparently felt that such a prohibition was unnecessary, especially in the light of a 1968 study made by the Federal Reserve Board. That study found that the credit card was not leading people too far into debt, that the sending of unsolicited credit cards was the only practical way of beginning and expanding a credit card business, that there was no evidence that the use of the credit card was increasing retail prices, and that the credit card did not work to the disadvantage of the small merchant. Each of these contentions was answered in the course of the Senate Hearings by the bill’s proponents. They argued that the credit card was indeed leading people into debt. It was a contributing factor to many consumer bankruptcies which arose when unsolicited credit cards were sent to already financially-pressed families enabling them to spend beyond their means and to overextend their credit. This, in turn, resulted in the garnishment of wages and, ultimately, in bankruptcy. Additionally, the practice of sending unsolicited credit cards contributed significantly to the inflationary trend:

A most compelling argument for the speedy passage and enactment of this legislation is that the uncontrolled and unsolicited distribution of credit cards helps stimulate inflation at the very time we are supposedly trying to curb it. The use of credit cards encourages easier credit and helps encourage a spending psychology among those very people who can least resist the urge to buy and who can least afford to overextend themselves.

The contention that the credit card was not increasing retail prices was not directly answered by the legislation’s proponents. Instead, it was generally, and logically, assumed that the costs of implementing and conducting a credit card

245 One possible reason for the issuers’ lack of concern over the liability provision was brought out in the Senate Hearings where it was stated that the issuers felt they could get insurance to cover losses greater than $50. Hearings on S. 721, supra note 195, at 80.
247 Id. at 53.
248 Hearings on S. 721, supra note 195, at 44.
business, including the costs resulting from theft and misuse of unsolicited cards, were passed on to the consumer.

The argument that the credit card did not work to the disadvantage of the small retailer was at least partially refuted by testimony to the effect that four out of five of the responding members of a national organization of small businessmen favored the absolute prohibition of the sending of unsolicited credit cards.

The final finding of the Federal Reserve study, that the banning of unsolicited credit cards would give an unfair competitive advantage to those issuers already established, presented a more serious objection. However, the action of the Federal Trade Commission in declaring the unsolicited mailing of credit cards an unfair trade practice provided Congress with the incentive to do likewise, notwithstanding any competitive advantage which might follow. In fact, failure to do so might have resulted in a far greater competitive imbalance on a broader scale because it was unclear whether the Federal Trade Commission's jurisdiction extended to bank and common carrier credit card issuers. If it did not, the banks and carriers would be able to mail unsolicited credit cards while all other issuers would be prohibited from doing so.

In addition to the above arguments, a real impetus for passage of the bill came from the simple desire to safeguard the consumer. If one could expect the credit card to substantially replace the check or to be the "vanguard of the end of currency," the dangers and inconveniences associated with its use would have to be eradicated. The unsolicited mailing of credit cards and the spectre of unlimited liability were two of these dangers. Their elimination would free the consumer from apprehension that a lost credit card might result in unauthorized bills or in damage to his credit rating; it would free him from the inconvenience of having to destroy or send back an unwanted card and the offensiveness which such an intrusion into his personal affairs represented.

For all of these reasons, the bill was enacted on October 20, 1970 to be effective 90 days later. With respect to the Less-Check concept, it is the most significant legislation enacted thus far in that it removes from the consumer perhaps his greatest objection to use of the credit card—his fear that the card's loss might lead to unlimited liability and, possibly, to bankruptcy. In so doing, it is an encouragement to even greater use of the present credit card and the future money card of the Less-Check economy.

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250 See, e.g., Credit Cards: Nicest Thing Since Money, Newsweek, July 17, 1967, at 36, for an account of the problems and expenses encountered by four Chicago area banks as a result of the mass mailing of bank credit cards.


252 Hearings on S. 721, supra note 195, at 131.

253 See notes 234-41 supra.

254 The Commission claimed that banks, common carriers, and air carriers, although normally outside its jurisdiction, were within its jurisdiction to the extent that they issued credit cards for use in connection with the sale of merchandise of services. 35 Fed. Reg. 4620 (1970). This assertion created some uncertainty, the Congressional belief being that these issuers could not be included under FTC jurisdiction since they are not covered by the FTC Act.


Currently under consideration, both by Congress and by the Federal Trade Commission, are measures designed to deal with consumer complaints involving creditor billing practices. These measures should, once enacted, continue the trend toward protection of the credit card consumer. The proposals constitute a recognition that consumer protection laws have lagged behind industry developments in the credit field. They are an attempt to remove various inconveniences associated with use of the credit card, an attempted "bill of rights" for the credit consumer.

A proposed Federal Trade Commission Trade Regulation Rule on billing practices has been postponed pending Congressional action on the more extensive Fair Credit Billing Act which contains substantially similar provisions and which is likely to be acted upon in 1972 since hearings have already been completed. Both measures offer remedies for a number of improper business practices which today are considered not much more than inconveniences. Their solution, however, will prove of greater significance to the Less-Check Society when the computer and the credit bureau will play a vastly more important role in consumer affairs.

a. The Shrinking Billing Period

The cardholder is customarily allowed 25 or 30 days in which to pay his bill free of finance charges. After that period, he is charged 1½ percent interest per month. The practice has grown up among some segments of the industry of sending out billing statements late, thereby cutting down the "grace period" in which a customer can pay free of finance charges. Section 163 of the Fair Credit Billing Act, the first national attempt at prohibiting this practice, would require that creditors mail out their billing statements at least 21 days before payment is due.

b. Computer Billing Errors

One of the annoyances accompanying the credit card boom has been the difficulty of dealing quickly with billing errors. The rapid expansion of the industry and its increasing use of computers have resulted in an impersonality which often necessitates weeks and months of effort to clear up such errors. Section 161 of the proposed Act would provide an "incentive" for creditors to respond promptly to consumer billing inquiries: they must acknowledge such inquiries...
within ten days and respond affirmatively to them within 30 days. Moreover, if, after the 30-day period has passed without the creditor having complied, the consumer can prove that the bill was in error, he will then be able to recover from the creditor the greater of $100 or three times the amount in dispute, plus any actual damages sustained by him and a reasonable attorney's fee.262

c. Adverse Credit Rating

Section 162 of the proposed Act complements the previous provision by removing any possibility that the creditor might attempt to compel payment of a disputed bill by threatening the customer with an adverse credit rating. The creditor who has received written notice of a dispute would be prohibited from making any such threat until he has both complied with the previous section and allowed the customer an additional 30 days in which to make payment. Additionally, before the creditor does report adverse credit information to a consumer reporting agency, he will be obliged to furnish the customer with the address of the agency and a copy of the report.263 A creditor who reports a disputed bill as delinquent will also have to report that the account is in dispute, furnish a brief description of the obligor's contention, and report any subsequent disposition of the dispute.264

d. Preservation of Cardholder Defenses

Section 169 of the Act, a provision which should prove extremely significant to both the credit card industry and the consumer, will subject the card issuer "to all claims and defenses arising out of any transaction in which the credit card is used as a method of payment or extension of credit."265 When the Fair Credit Billing Act was first introduced, this section was considered necessary to protect the bank credit card holder because the bank, as a "holder in due course or a cash lender," could enforce payment notwithstanding any dispute between the cardholder and the merchant.266 While that conclusion is accurate—the cardholder is precluded from asserting defenses against the issuer in a tripartite system—these particular theories are not its basis. The bank in this instance is not a holder in due course, nor is its status of cash lender controlling. Rather, payment is enforced because of the waiver of defense clause contained in practi-
cally every consumer credit contract. By the waiver of defense clause, the consumer agrees not to assert against the credit card issuer any defenses which he might have against the merchant. With the exception of a few states, present law upholds the waiver clause. The Uniform Commercial Code recognizes it, subject only to state consumer laws and court decisions which make it ineffective.\textsuperscript{268} The Uniform Consumer Credit Code, enacted in six states\textsuperscript{269} does deal directly with the problem by offering the choice of either outright prohibition of the waiver clause\textsuperscript{270} or recognition of it subject to certain limitations.\textsuperscript{271} Unfortunately, these alternatives have no application to the tripartite credit card arrangement, \textit{i.e.}, transactions involving the "lender credit card" are excluded from the coverage of Article 2 (Credit Sales) of the Uniform Consumer Credit Code.\textsuperscript{272}

Thus, protection of the consumer is quite limited in this area. Passage of the Fair Credit Billing Act will represent a dramatic improvement for most consumers, allowing them to retain their most effective weapon against unsatisfactory business practices, \textit{viz.}, the right to refuse payment for defective goods or services. By declaring the waiver of defense clause ineffective in consumer credit card transactions, Congress will have taken a most significant step, not only with respect to the present-day cardholder, but also with respect to the transition toward the Less-Check Society. It will have ensured that this basic consumer right to refuse payment for inadequate goods or services will not be eroded by the gradual change to a credit card economy. As Senator Proxmire said in introducing the bill: "The inclusion of a third party such as a bank or a credit card company should not be permitted to weaken the traditional rights and defenses which a consumer might have in any retail transaction entered into directly with a merchant."\textsuperscript{273}

\textit{e. Billing Reforms}

In addition to the significant reforms outlined above, the Fair Credit Billing Act would relieve some of the minor vexations encountered by credit cardholders. The remedies proposed, however, should do more than eliminate somewhat trifling consumer inconveniences. They should, in their cumulative impact, prove as significant as the above provisions in easing the transition to a Less-Check

\textsuperscript{268} \textit{Uniform Commercial Code} § 9-206.

\textsuperscript{269} Utah, Oklahoma, Indiana, Idaho, Colorado, Wyoming.

\textsuperscript{270} \textit{Uniform Consumer Credit Code} § 2.404, \textit{Alternative A}.

\textsuperscript{271} \textit{Uniform Consumer Credit Code} § 2.404, \textit{Alternative B}, states:

With respect to a consumer credit sale or consumer lease . . . an agreement by the buyer or lessee not to assert against an assignee a claim or defense arising out of the sale or lease is enforceable only by an assignee not related to the seller or lessor who acquires the buyer's or lessee's contract in good faith and for value, who gives the buyer or lessee notice of the assignment . . . and who, within 3 months after the mailing of the notice of assignment, receives no written notice of the facts giving rise to the buyer's or lessee's claim or defense. . . .

\textsuperscript{272} Article 2 of the Uniform Consumer Credit Code pertains to the consumer credit \textit{sale}. One of the requirements of a credit sale is that credit be granted by a person who regularly engages as a \textit{seller} in credit transactions of the same kind. \textit{Uniform Consumer Credit Code} § 2.104. The tripartite credit card is a \textit{lender} credit card as opposed to a seller credit card. Since it does not contemplate credit being extended by a person who regularly engages as a \textit{seller}, the lender credit card arrangement is not within the scope of article 2. Hence, the alternative waiver of defense sections are inapplicable to the tripartite credit card arrangement.

Society by removing some of the objections to a credit card (or money card) payments systems. Most of these objections have to do with questionable billing practices.

Section 164 would prohibit the use of the previous balance billing system under which the customer’s account is not reduced by partial payments made during the current payment period. The effect of this system is that the cardholder winds up paying interest on money he has already repaid. To remedy this, the legislation requires any creditor operating the type of credit arrangement which grants the consumer an opportunity to avoid finance charges by paying his bill within a reasonable time to make use of the “adjusted balance system.” This system more accurately reflects the status of the debt by applying “a periodic rate or rates to the amount represented by the opening balance reduced by an amount equal to all payments and other adjustments received and credited to the obligor’s account during such period.”

Section 165 would outlaw the minimum finance charge on the ground that it discriminates against a specific group of customers, viz., those who have not been able to pay their bills within the specified time period.

Section 166 would prohibit offsets; i.e., it would prevent creditors from using funds on deposit as an offset to a credit card debt. The real significance of this section is that it affirms the consumer’s right of refusal to pay for unsatisfactory services or merchandise. More simply, it preserves his bargaining power.

Section 167 would require the creditor to acknowledge payments at the date of their actual receipt, while section 168 would require that excess payments be credited immediately to the consumer’s account.

None of the above provisions relating to billing practices is of monumental importance, but, taken together, their impact should be of some significance to the Less-Check concept. The reform of billing practices related to the credit card can only serve to reduce consumer fears of and objections to computer finance.

f. Administrative Reforms

The Fair Credit Billing Act would also respond to the problems caused by increasing credit card volume by providing several administrative aids for the consumer’s benefit. The first such aid is the requirement that the monthly statement contain a fuller description of each credit transaction, including the “amount and date of each extension of credit, ... the vendors and/or creditors...

\[274\] Id. at 967.

\[275\] Senator Proxmire gave the following example of the previous balance system: “[I]f a consumer had an opening balance of $100 and made a partial payment of $90, a creditor using the previous balance system would charge the consumer 1\% of the $100 balance, or $1.00.”

\[276\] Id.

\[277\] S. 652, 92d Cong., 1st Sess. § 164 (1971). The FTC proposal does not contain a similar provision.

\[278\] Id. The FTC proposal does not contain a similar provision.

\[279\] Again the FTC proposal does not contain similar provisions.
involved, and, if a purchase was involved, a brief identification of the goods or services purchased. This provision should prove equally relevant to today's credit cardholder and to tomorrow's "money card" consumer. Today's cardholder will be able to more easily keep track of his various credit card purchases without having to accumulate a month's sales invoices. Although tomorrow's Less-Check consumer will not have the problem of an accumulation of invoices (the Less-Check Society is meant to be a less-paper society), the Less-Check concept does contemplate a type of monthly statement similar to the one provided here. Thus, this particular provision anticipates and, to some extent, provides for the future.

The creditor will also be required to list on monthly billing statements an address and telephone number in order to enable the consumer to obtain quick action on any complaints or questions concerning his own account. This provision has been described as a means of "humanizing" the billing system and, as such, should make the impersonal credit card (and money card) less objectionable to the consumer.

Finally, the bill would enable the merchant to offer a cash discount of up to five percent as a means of inducing payment in cash rather than by credit card, a practice usually contractually prohibited by the credit card industry. This provision constitutes a recognition of the fact that the merchant's payment of a discount to the credit card issuer is passed on to the consumer in the form of a higher retail price. Consequently, the customer paying cash is subsidizing the customer buying on credit. Under section 170, the merchant will be allowed to offer to each customer the alternative of making purchases by credit card at the regular price or by cash at a lesser price, the difference representing the discount charged the merchant on each credit sale.

This last provision is perhaps of less relevance to the Less-Check concept than the above provisions since its effect will certainly not be to promote the advantages of the credit card over other forms of payment. It is a purely consumer-oriented, realistic recognition of the fact that, despite its convenience, the credit card increases retail costs somewhat. In the long run, however, this provision, when considered within the context of the Fair Credit Billing Act, will probably have proved beneficial to the consumer's acceptance of a Less-Check concept. The Act will eliminate many of the difficulties and inconveniences

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280 S. 652, 92d Cong., 1st Sess. § 2(2) (1971). The FTC proposal would make it an unfair trade practice to:
- fail to specify the vendors and/or creditors, the amount, and dates of each extension of credit or the date such extension of credit is debited to the account during the billing cycle and, a brief identification, either on the statement or on an accompanying slip or by a symbol of any goods or services purchased or other extension of credit.

See note 257 supra.

281 S. 652, 92d Cong., 1st Sess. § 2(3) (1971). The FTC proposal would make it an unfair trade practice to:
- fail to include on the billing statement the name, address and telephone number of a person authorized to act as a contact between the customer and the retail establishment for the purpose of receiving requests by the customer to correct mistakes or make adjustments to the customer's billing statement. See note 257 supra.


283 S. 652, 92d Cong., 1st Sess. § 170 (1971). The FTC proposal does not contain a similar provision.
associated with the credit card. For the first time the credit card will be truly safe and truly convenient. The consumer will have an honest understanding of the cost of the credit card to him. But, weighed against the credit card's newly established advantages, this cost should prove relatively minor and the card itself more acceptable.

4. Consumer Liability—A Suggestion

If we are indeed approaching the Less-Check Society, an economy in which the "money card" payments system will have come to supplant the check payments system, an additional consumer provision is called for. All civil liability for unauthorized use should be eliminated. Current law provides that, if certain conditions are met, a consumer may be liable for up to $50 worth of unauthorized purchases. If however, the same consumer loses a blank check, he will suffer no liability whatsoever in the event the check is forged and cashed. Such discrepant treatment is probably due to the equation of the credit card with currency by the legal community. The belief apparently is that it "would be ideal if every holder treated his card as if it were a thousand dollar bill." the inference being that the consumer who has lost his credit card should be treated no differently from the one who has lost his cash—the value is gone. This position ignores the fact that one of the reasons that the consumer makes use of the credit card is to avoid the necessity of carrying large sums of money. If the consumer were expected to treat his credit card as if it were a thousand dollar bill, he would probably be reluctant to carry it with him. As noted above, Congress has reduced this fear by its $50 limitation of liability, but it has not completely eliminated the problem. A consumer who has lost a billfold full of credit cards is still potentially liable for $50 multiplied by the number of credit cards lost. Such treatment is unrealistic. The industry itself advertises the device as a safe way to carry money. The law should reflect this proposition by making the credit card absolutely safe.

The credit card transaction is actually more like the check purchase than the no-questions-asked cash purchase: some alternative means of identification is often required and a signature is always required. The credit card should, therefore, be treated like the check. Such treatment would more realistically reflect the development of the credit card as check substitute and would impose no undue hardship upon the industry since current law requires that the card issuer provide some sort of identification device (usually a signature panel) for even limited liability to be imposed. All that the industry would have to do to

284 See generally Bergsten, Credit Cards—A Prelude to the Cashless Society, 8 B.C. IND. & COM. L. REV. 485, 505-07 (1967).
285 See text accompanying notes 242-255 supra.
286 Uniform Commercial Code § 3-404(1): "Any unauthorized signature is wholly inoperative as that of the person whose name is signed unless he ratifies it or is precluded from denying it..."
288 "[N]o cardholder shall be liable for the unauthorized use of any credit card... unless the card issuer has provided a method whereby the user of the card can be identified as the person authorized to use it." 15 U.S.C. § 1643 (1970).
avoid loss would be to instruct its member merchants to compare the signature on the card with that on the sales invoice. This procedure would enable the merchant to confirm the identity of his customer as the bank teller does, by comparing signatures (that on the check with the one on file in the bank). Since the burden of identification would be the same on the merchant as on the banker, why shouldn't the merchant, as does the banker, assume total responsibility for his own carelessness?

The Uniform Commercial Code allows the banker to charge against the customer only items "properly payable." Payment of a check with a forged signature is not "proper"; hence, the banker cannot charge the payment against the customer's account. The credit card should be treated similarly; its owner should not bear responsibility, even to the extent of $50, for the carelessness of a banker or a retailer. Losses from unauthorized purchases should be considered as part of the cost of operating a credit card system. This cost could be reduced by the exercise of a minimum of care by the industry, and, consequently, it should not be borne by the consumer who is already paying higher prices and a 1½ percent per month late payment fee for the privilege of using the card.

The current $50 potential liability amounts to an implied risk-sharing between the consumer and the industry and should be eliminated. Such a change would constitute a more accurate reflection of the status of the credit card and of its evolution from identification card to payments system.

IV. Toward a Less-Check Society

A. Introduction

The following statement typifies the area of greatest agreement among most of the writers and investigators of the changing payment system: "My message is uncomplicated: It is that a Direct-Fund-Transfer system seems to be technically, operationally, and economically feasible and that it is apparently inevitable." The current writings on this topic indicate that the technical feasibility of a Less-Check Society is the area of greatest agreement. Assuming that we now have, and have had for several years, the technical knowledge and equipment

289 Uniform Commercial Code § 4-401.
290 There is some feeling that the abolition of all civil liability for unauthorized credit card use would eliminate whatever incentive the cardholder now has to report the card's loss or theft. To meet this objection the present liability provision could be kept in an altered form. If the customer, after receiving his monthly statement, neglects to inform the issuer within a reasonable time (i.e., 14 days, in accordance with Uniform Commercial Code § 4-406) of any discrepancy between the statement and his own records, he could be liable for a penalty of up to $50 for any losses resulting from (i.e., occurring after the 14-day period) that delay. This approach would have the twofold advantage of placing upon the industry responsibility for its member merchants' carelessness and of providing an incentive for the customer to notify the issuer of loss or theft of the card. The notion of an implied risk-sharing between the parties would be eliminated, but the customer would continue to feel constrained to give notice to the issuer.

It should be noted that the threat of a $50 penalty would be largely illusory. The turnover in stolen credit cards is sufficiently rapid that it is unlikely that one would still be in use 14 days after customer receipt of the billing statement. Consequently, the $50 penalty would seldom be assessed. It would remain an empty threat, but one of some use to the industry.

for such a payment system, why is check volume continuing to increase at an annual rate of 7 percent? Why have we not yet applied this technical know-how to implement a viable method to transfer funds electronically, thereby reducing check volume? One reason has already been discussed. The adoption of high speed sorting equipment which reads the Magnetic Ink Character Recognition characters has removed some of the mounting pressure upon the system to offer alternative means for funds transfer. This appears, however, to be only a stop-gap measure.

While a changing payments system, ultimately leading to a Less-Check Society, may evolve as forecasted, there are still many hurdles which must first be overcome. Possession of the technical know-how to implement such a system may not be sufficient to attract participants away from the usage of the check. Any new payments alternative, introduced with a goal of attracting present check users and thus reducing check volume, must offer the user advantages which are sufficient to induce him to change his present attachments to the check. This section will consider some of the problems which the EFTS must overcome if it is to offer a viable alternative to the check as a payments mechanism. This will be followed with an examination of some of the positive forces now under way to hasten the development of the EFTS. The more popular suggestions, which seem most likely to occur during the necessary transitional period from a payments system heavily reliant upon the check to an EFTS will also be discussed.

1. Changes Required to Accommodate EFTS

If we are to actually experience a payments system substantially different from our present check-reliant system, several factors must be recognized and dealt with. Accepting the oft-repeated statement that such a change is technically feasible, it becomes necessary to look at some of the factors which are involved in such a change. Before a widely used EFTS can be successfully implemented the following will have to occur:

(1) Over eleven million business accounting and control systems must be modified.

(2) Over fifty million people must be positively identified in such a way to permit identification verifications over a communication system.

(3) Over 70 million new terminals must be installed (including household units if maximum elimination of checks is to be achieved).

(4) More than 150 million people must change their way of thinking and acting with regard to credit, money, and purchasing.

(5) An adequate security communication system linking every place of business and every household must be developed.

(6) Paper source records must be eliminated as the major part of the payments system.

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2. Consumer Opinion

A change in the payments system will affect each of us as users of the system. Yet until recently, the user of the system seemed to be all but ignored as future prognosticators foresaw the birth of a new era. The emphasis may now be shifting, recognizing that the success of any change may well depend upon the advantages offered its users, not merely the solution it provides for problems of the banking industry. As one banker has noted:

Even if electronic payment systems are technologically and economically feasible, and if the security, economic and standardization problems are solved, the entire effort will be meaningless unless such a system enables banks to offer desirable and profitable services to customers.294

The key to a successful change in the payments system may well be the element of desirable services for the consumer. These services must be so advantageous that they will persuade the consumer to change established habits and to overcome psychological barriers. The popularity of the check is attested to by the very fact that the paper volume problem exists. Banks have been so successful in marketing this service that now more than 65 percent of the population over 18 years of age have checking accounts.295 It has been established that over 90 percent of the total dollar volume of payments are made by check.296 One major contrast between payment by check and use of the EFTS is the payor’s control over the timing of payment. Under the check-payment system, the consumer is billed for the purchase of many goods and services. He may, within certain limitations, select the day he wishes to pay this bill and send his vendor a check. Payment by the EFTS will be simultaneous with the purchase or the monthly due date of the bill. This deprives the consumer of the advantage of timing bill payment with his cash flow. A marketing research study conducted by Arthur D. Little, Inc., for the American Bankers Association "revealed that bank customers are, for the most part, quite satisfied with the check payment system in its present form. The element of control of the timing of payments is the one feature of the check-processing system most favored by our customers."297

A study conducted recently by the Georgia Tech Research Institute under sponsorship of the Federal Reserve Bank of Atlanta, concluded that:

The direct deposit of payroll, an element of an advanced payment system, has not been popular. Only a very small percentage of households were paid in this manner. Further, there was strong opposition on the part of households to the direct deposit of payroll, although the pattern of this opposition varied by age, sex and gross income level of the household.298

296 FEDERAL RESERVE BANK OF BOSTON, supra note 3, at 4.
298 FEDERAL RESERVE BANK OF ATLANTA, REPORT ON PHASES I AND II OF “RESEARCH ON IMPROVEMENTS OF THE PAYMENTS MECHANISM” (July 8, 1971). This material has been copyrighted (1971) by the Georgia Tech Research Institute.
This same study also indicated that overall business attitudes toward direct deposit of payroll were somewhat more negative than those of households. One apparent reason for this opposition was the desire of employers to avoid any labor problems with the employees who were generally dissatisfied with the plan.\footnote{299} Such negative attitudes to the direct deposit of payrolls are particularly significant. Payroll checks accounted for over 40 percent of the business checks written in the metropolitan areas surveyed,\footnote{300} and thus offer an excellent starting point to both reduce check volume and begin to condition consumers toward less reliance upon paper documents.

One of the few studies covering customer response to EFTS was conducted by Hempstead Bank, Long Island, New York, in conjunction with its pilot test of an EFTS. A mail survey of checking account customers was taken to ascertain consumer acceptance of an EFTS. A random sample of 2,000 customers were mailed questionnaires. After a follow-up mailing 1,069 usable questionnaires were returned. The questionnaire included a detailed explanation of an EFTS to enhance the understanding of those responding.\footnote{301} The following tables tabulate sample results when respondents were asked if they would use such a payments system.\footnote{302}

### Acceptance of Electronic-Funds-Transfer System

<table>
<thead>
<tr>
<th>Would Use System if Offered</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, definitely</td>
<td>20.6%</td>
</tr>
<tr>
<td>Yes, W/Reservations</td>
<td>26.4%</td>
</tr>
<tr>
<td>No</td>
<td>20.8%</td>
</tr>
<tr>
<td>Not Sure</td>
<td>32.2%</td>
</tr>
</tbody>
</table>

Responses were also correlated with respondents who were credit card users.\footnote{303}

<table>
<thead>
<tr>
<th>Would Use System</th>
<th>% with No</th>
<th>% with Store Card</th>
<th>% with Gas Card</th>
<th>% with T &amp; E Card</th>
<th>% with Bank Card</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, definitely</td>
<td>18.1%</td>
<td>20.3%</td>
<td>22.7%</td>
<td>26.5%</td>
<td>28.9%</td>
</tr>
<tr>
<td>Yes, with Reservations</td>
<td>21.1%</td>
<td>27.0%</td>
<td>30.1%</td>
<td>29.6%</td>
<td>29.2%</td>
</tr>
<tr>
<td>No</td>
<td>28.1%</td>
<td>19.7%</td>
<td>16.5%</td>
<td>16.3%</td>
<td>12.3%</td>
</tr>
<tr>
<td>Not Sure</td>
<td>32.7%</td>
<td>33.1%</td>
<td>30.7%</td>
<td>27.6%</td>
<td>29.5%</td>
</tr>
</tbody>
</table>

\footnote{299} Id. at 7.  
\footnote{300} Id. at 4.  
\footnote{302} Id. at 19.  
\footnote{303} Id.
As this table shows, those respondents presently using credit cards were more ready to accept a further change in the payments system than the sample as a whole.

Another indication of the resistance patterns to a change in the payments system was highlighted when responses were correlated with the age of the respondent.304

<table>
<thead>
<tr>
<th>Would Use System</th>
<th>Under 25</th>
<th>25 to 34</th>
<th>35 to 44</th>
<th>45 to 54</th>
<th>55 to 64</th>
<th>65 and Over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, Definitely</td>
<td>36.6%</td>
<td>21.6%</td>
<td>21.7%</td>
<td>18.7%</td>
<td>15.1%</td>
<td>8.1%</td>
</tr>
<tr>
<td>Yes, with Reservations</td>
<td>30.4%</td>
<td>32.5%</td>
<td>24.0%</td>
<td>27.8%</td>
<td>22.4%</td>
<td>16.2%</td>
</tr>
<tr>
<td>No</td>
<td>7.1%</td>
<td>11.9%</td>
<td>20.5%</td>
<td>23.8%</td>
<td>28.9%</td>
<td>37.8%</td>
</tr>
<tr>
<td>Not Sure</td>
<td>25.9%</td>
<td>34.0%</td>
<td>33.8%</td>
<td>29.7%</td>
<td>33.6%</td>
<td>37.8%</td>
</tr>
</tbody>
</table>

A direct correlation between age and acceptance of the alternate payments system is readily apparent. If the younger respondents retain this attitude as they grow older, and if succeeding generations are less negatively inclined toward the alternate system, then an EFTS, gradually introduced over an extended time period, should receive more unanimous approval.

A survey of opinions of bank executives from the 300 largest commercial banks, conducted by San Diego State College indicated that:305

1. 68 percent believe checks will never be eliminated completely;
2. 93 percent believe cash will not be eliminated;
3. 58 percent believe some form of Less-Check Society will become a reality by the end of the century.

These executives also recognized the existence of certain barriers. Some of the barriers mentioned in this study were:306

1. Customer resistance to immediate transfer of their funds;
2. Problems of customer identification;
3. Cost to the customer;
4. Problems of universal numbering system;
5. Lack of demand for benefits of the Less-Check Society;
6. Customer resistance to elimination of checks;
7. Customer resistance to public access to credit information files.

The results of the above limited marketing studies, together with the demonstrated popularity of the check, highlight a major obstacle to any short-term radical change in the payments system. The check, from the customer's viewpoint, does a good job. Banks have successfully sold their public on the desirabil-

304 Id. at 20.
305 SAN DIEGO STATE COLLEGE, SCHOOL OF BUS. ADMIN., SUMMARY BANK SURVEY REPORT 1-2 (1968).
306 Id. at 2.
ity of paying by check. Major selling points, such as cancelled checks serving as proof of payment, the checkbook as a record of expenditures, and convenience of payment have been successfully communicated. The ability to stop payment, protection from forged signatures, and decreased service charges have been additional factors increasing the popularity of checks.

Most check users are aware of, and often take advantage of, a phenomenon peculiar to the check-clearing system generally known as "float." Depending upon the number of units in the check-clearing process through which the check must pass on its trip back to the payor bank, the drawers account may not be debited for the amount of the check for several days after it's delivered to the payee. Float, coupled with the ability to control the timing of payment, is a feature of the check-payment system which will not be available in an EFTS. These added advantages of the check over electronic funds transfer will make such a new system more difficult to successfully market.

3. Elements of an EFTS Present Today

The development toward a Less-Check Society occurring over a longer time span, with various elements being introduced in successive stages may have the cumulative effect of stabilizing check volume, and creating new habit patterns at such a slow rate that the full impact of the new system will not be realized until it is practically operational. The public has already accepted some phases of the Less-Check era. Almost 2 million insurance policyholders pay their premiums monthly without writing checks to the insurance company. The preauthorized payment of insurance premiums was promoted by the insurance industry to reduce the lapse of policies caused by failure to make renewal payments, and to speed up their flow of funds through prompt payment of premiums. The policyholder authorizes his bank to accept drafts drawn by the insurance company on the policyholder's account for a fixed amount. The insurance company indemnifies the bank for losses due to failure to pay the draft or overpayment of the authorized amount. The policyholder is later provided with a verification of payment in his regular monthly statement. He neither receives a bill nor writes a check. The insurance company has access to the funds practically as soon as the payment is due by drafting on the policyholder's account. Since the policyholder loses control of the timing of his payment, the insurance industry recognized that some incentive would be necessary to induce participation. In addition to convenience of payment for the customer, the insurance company offered participating policyholders reduced premium rates in return for their participation. Thus, the insurance company and the policyholder share the benefits of the plan. The

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307 Uniform Commercial Code § 4-403.
308 Uniform Commercial Code § 3-404.
309 To attract new checking account customers many banks have offered service charge free checking accounts if a minimum balance ranging from $100 to $200 is maintained in the account each month. Some banks have offered the additional option of a service charge free checking account if the account holder, rather than maintaining a minimum balance in his checking account, maintains a $500 minimum balance in an interest bearing passbook savings account.
success of this program illustrates a good marketing lesson—when sufficient
benefits are offered to offset any disadvantages of a change, the new proposal
will meet with greater acceptance. This seems particularly true when contrasted
with the limited acceptance of other preauthorized payment programs.

B. Preauthorized Payment Plans

1. In General

An orderly change in our payments system can come about through a step-
by-step introduction of the various elements envisioned in the Less-Check Society. As one commentator has noted:

While it is fairly easy and very exciting to engineer a system that takes a
completely new and radically different approach to a problem, such a
system seldom works. It generally runs into trouble by ignoring the old
system it is supposed to replace—a system that is firmly established, has
substantial economic value, and despite some shortcomings, serves a useful
function. What's more, there usually has grown up around the old system
a pattern of human behavior that cannot be changed very easily or rapidly.311

One step in this evolutionary process that is currently receiving considerable
attention is the preauthorized payment. These plans are based upon an agree-
ment between an account holder and his bank under which the bank has stand-
ing instructions to debit or credit the customer's checking account for certain
transactions without further authorization. Rather than issuing a check each
month for the payment of recurring bills, the vendor sends the "bill" to the
bank where the funds are automatically transferred from the customer's account
and credited to the vendor's account. They are primarily limited to those types
of transactions which recur on a periodic basis such as utility bills, insurance
payments, and telephone bills. While preauthorized payment plans have been
in existence for several decades, they have not enjoyed general acceptance. The
most common plans are with insurance companies and bank plans which facilitate
regular internal transfers from a customer's checking account to his savings or
other accounts. While these automatic deposits within the bank do reduce the
number of checks written, the eliminated checks are the ones causing the least
trouble since they never enter the interbank collection system.312 The effect,
however, of preauthorized bill payment is to reverse the normal payment flow.
As pointed out in the study of the check-collection system conducted by the
Bank Administration Institute:

This reversal of the normal payment flow in which banks receive a payment
authorization directly from their depositor, instead of indirectly from a
vendor who sold his goods or services to the depositor, is an important
change in payment system patterns. It is important because this reverse

312 BANK ADMINISTRATION INSTITUTE, supra note 26, at 27.
flow would change the order-to-pay from a well-traveled, much-processed piece of paper into a one-stop payment instrument.  

2. Current Problems

One problem with most preauthorized payment plans is the necessity for the vendor to maintain an account with each bank in which participating customers have accounts. An additional obstacle is the necessity to maintain a direct billing routine, because the proportion of customers who view preauthorized payments as a desirable development has, so far, been surprisingly low. Furthermore, some customers simply do not use checking accounts. To adopt the preauthorized program as an exclusive means of billing requires the vendor to either persuade these customers to open a checking account or simply not deal with them—hardly an attractive alternative. Other customers prefer to see each bill before it is paid or prefer to determine the paying date themselves. Still others have always paid by check and are un convinced that preauthorization offers them any particular advantage.

The customer who participates in a preauthorized payment program does lose the flexibility of determining when the bill is to be paid. Also, since his account is credited automatically and he may not receive notice of the credit until the end of the month, it is more difficult to maintain an accurate day-to-day record of his account balance.

The key to future success of preauthorized payment systems probably will be in marketing design, i.e., what new advantages does the program offer to compensate the participant for the loss of the advantages associated with payment by check. Convenience plus some cost savings by doing away with check writing and mailing are certainly advantages. The insurance industry seems to have found one answer in their benefit sharing approach. Passing some of the advantages of increased cash flow and fewer lapsed policies back to the consumer in the form of reduced premiums has made the preauthorized insurance premium program more successful. Perhaps a similar approach by other vendors would increase the acceptability of the concept.

Customer participation in a preauthorized funds transfer conditions him to a new mode of payment where he doesn’t directly initiate the payment order. This would be an important bridge to some of the more radical changes encompassed within the broader context of the Less-Check Society. A closely allied payment system is the one-check payroll. Wide adoption of these concepts could have a significant impact on check volume.

As stated previously, preauthorized payment programs have not enjoyed widespread success. For example, in the Bell Telephone Companies, where there is vast potential, the four companies offering the service find its usage

313 Id.
314 The transfer of funds from the vendee’s account to the vendor’s account must take place within the same bank. Most banks have not provided an inter-bank clearing process to allow the vendor’s bank to effect debit entries at various banks where the vendor’s customers maintain their account. Therefore, the vendor is required to maintain an account with each bank where a participating customer has an account.
315 FEDERAL RESERVE BANK OF BOSTON, supra note 3, at 13.
running between 2 percent and 4 percent of subscribers. In Philadelphia, the electric companies and banks have been able to attract far less than the 50,000 customers needed to break even. In Louisville, where it has been available for over 30 years, only 10 percent of the customers take advantage of the service, although interestingly enough half of these were added in the last three years. Further, consumer attitude, as indicated in the Georgia Tech study, doesn’t indicate a strong desire for such services.

3. California’s SCOPE Project

a. An Experiment with “Paperless” Preauthorized Payments

A California experiment, known as SCOPE (Special Committee on Paperless Entries), has as its primary objective the study, development and formulation of uniform standards and procedures for the exchange of paperless entries between banks. SCOPE could be one of the most significant tests of the acceptability of preauthorized payments, including the one-check payroll, that has been offered by the banking community. A major limitation of the preauthorized payment programs discussed above was the lack of inter-bank exchange facilities. Lack of such exchange capability required the vendor to maintain an account in each bank where his customers had accounts. The SCOPE project provides this exchange capability between all participating banks. Participants in the SCOPE project will handle “paperless” preauthorized entries which arise through the existence of recurring payment obligations. Settlement of these obligations between vendor and vendee will be accomplished by direct entries to the demand account of each party.

As of October, 1971, 56 banks with 2,800 branches have agreed to participate in the SCOPE project. Only seven banks with a total of 20 branches have refused. Eighty-three banks, having a total of 314 branches have not indicated whether or not they will participate.

b. Participating Entities

Five separate entities will participate within SCOPE’s operating structure.

(1). CUSTOMER (EMPLOYEE). The “paperless” entry will be directed to the account of the customer (employee). Funds will flow to or from his account depending upon the type of obligation to be settled. As a customer he obtains services or merchandise from a company. Rather than the company billing him directly, the customer arranges with his participating bank to have the amount

317 Id.
318 Id.
319 Federal Reserve Bank of Atlanta, supra note 298.
322 Id.
323 Id.
of the bill debited directly from his checking account. As an employee, he will arrange to have his paycheck credited directly to his checking or savings account.

(2). COMPANY. The company originates the "paperless" entry. Rather than billing the customer, it originates a "paperless" debit to the customer's demand account. A "paperless" credit to the employee's checking or savings account is generated in place of the issuance of a pay check.

(3). ORIGINATING BANK. The participating bank initially receiving a "paperless" entry is the originating bank. Entries are received from the company and forwarded into the commercial banking clearing facilities.

(4). AUTOMATED CLEARING HOUSE (ACH). The exchange of inter-bank "paperless" entries is effected by the ACH. The inter-bank settlement mechanism is also provided by the ACH.

(5). RECEIVING BANK. The bank maintaining the customer (employee) demand account which has been selected to be debited or credited by "paperless" entry is the receiving bank.

c. Processing of "Paperless" Entries

The SCOPE project will provide a fertile experimental ground for "paperless" entry banking. It will also provide increased flexibility to the concept of pre-authorized payment. Since there will be multiple bank participation and a vehicle for inter-bank transfers, the vendor need not maintain an account in each bank where his customer has an account. The use of the one-check payroll will not require the employee to maintain an account at the same bank as the company. The SCOPE system provides a clearinghouse for these transactions, thus greatly increasing the flexibility of the preauthorization concept. It also accomplishes the transfer of funds without any paper documents.

The distribution of a payroll by a participating company will work as follows. The company will furnish the originating bank with payroll information in an acceptable form (actually the bank may prepare the information in the proper form as an additional service). An identification of each employee, the amount of the check, the employee bank account number, and his bank of account will be furnished by the company. The originating bank processes this data and "out sorts" all "on us" items. The data is then forwarded to the ACH. There the information is sorted and routed either directly to the receiving bank or to another regional ACH where it is routed to the receiving bank. Each employee checking or savings account is then automatically credited with his pay for that period. During this entire process, no paper is handled.325

The preauthorized payment of bills works in the following manner. The customer signs a preauthorization agreement which is a two-part form. The first part is the customer's authorization to the company to initiate debits to his checking account and to the receiving bank to accept and post these debits. The reverse side is the company's indemnification to the receiving bank. The company then provides the originating bank with the bills of all participating customers. The originating bank processes this data and debits the customers'
accounts for any payments which are drawn on the originating bank’s participating customers. The data is then forwarded to the ACH where it is routed to the proper receiving bank. Each participating customer’s account is debited for the amount of the entry.\(^{326}\)

The settlement procedure is controlled through the ACH. The Federal Reserve Bank of San Francisco has agreed to perform this role in the following manner:

Settlement will be effected through the individual reserve accounts which each participating bank or its designated correspondent maintain at the Federal Reserve. The reserve accounts will be posted to reflect the total amount of debits and credits each participant submitted and received.\(^{327}\)

d. Advantages to SCOPE Participants

The success of this project will depend upon many factors. One of the most obvious and important will be the participating banks’ ability to attract participants, both customers and companies. The flexibility which is built into the SCOPE design will help to eliminate some of the limiting factors that have been discussed. Once again, however, overall success still will depend upon the advantages which are offered to the participants. The SCOPE Procedural Guide lists the following as some of the advantages:\(^ {328}\)

Advantages to the Customer (Employee):

The automatic payment of recurring obligations provides the following benefits to the customer: The time and cost of making the payment is eliminated; for example, issuing a check and postage costs. Since the customer has arranged for the obligations to be paid automatically when presented, possible delinquency resulting from customer oversight is avoided. Payments are displayed and identified on the customer’s demand account statement assuring the customer proof of payment.

Automatic deposit of wages provides the following benefits to the employee:

The time and cost involved in depositing his paycheck at the bank or preparing a mail deposit is eliminated; for example, elimination of travel, postage, waiting in branches during peak lobby traffic periods.

The employee’s funds are consistently available to him on a timely basis through automatic deposits to his demand account—even during vacation, illness or business trips.

The employee’s funds are safely deposited—danger of lost or stolen paychecks is eliminated.

Advantages to the Company:

Companies periodically billing for merchandise or services are afforded several operational advantages:

Cashiering and remittance processing functions are essentially eliminated yielding reductions in operating costs.

\(^{326}\) Id.

\(^{327}\) Id. at 18.

\(^{328}\) Id. at 3-4.
The company is better able to plan and control the flow of funds since transactions are resolved automatically on prearranged presentation dates. A reduction in the collection effort is probable since automatic debiting should reduce the occurrence of overdue accounts through customer oversight.

Companies which make periodic payments to employees or to other groups achieve the following benefits:

Check preparation and reconciling are eliminated resulting in reduced operating costs.
Special arrangements for check handling, distribution and control are eliminated.
Improved employee relations or improved services to other groups are afforded through automatic deposits.

Whether or not these advantages are sufficient to overcome some of the objections previously discussed seems questionable. It may be questioned if some are even advantages. Listing "improved employee relations" as an advantage to the company which uses direct deposit of payroll is certainly inconsistent with the conclusions of the Georgia Tech study. An experiment such as SCOPE will provide significant insight into the acceptability of certain elements of the Less-Check Society.

e. Legal Framework

The legal framework within which SCOPE will operate consists of a series of indemnification agreements and other contractual agreements. Customers (employees) authorize the company to initiate automatic debits or credits to their demand deposit accounts. The receiving bank is authorized to accept these entries. Each participating company indemnifies the participating bank against losses attributable to information submitted incorrectly by the company, and agrees to comply with ACH rules. An experiment such as SCOPE will provide significant insight into the acceptability of certain elements of the Less-Check Society.

Below is a pictorial diagram of the proposed direct legal arrangements among participants.
Preliminary drafts of the legal agreements have been completed. These documents may be modified prior to use, but they do provide us with an outline of the legal setting within which the SCOPE project will operate.

The customer (employee) executes either a debit or credit agreement.
authorizing the company to initiate, and the receiving bank to accept, certain entries to his checking account. The customer (employee) agrees that neither the receiving bank, any participating bank, nor the ACH shall have any responsibility for the correctness of the amounts debited or credited.\textsuperscript{332} Further, the customer (employee) agrees that any disputes arising from any errors or omissions which may occur will be handled by the customer (employee) directly with the company and "shall not involve or be the responsibility of the bank."\textsuperscript{333}

The reverse side of these authorization agreements contains the company's acknowledgement that it has executed the "Company Indemnification Agreement," and a recognition of the status of the bank as a "Participating Bank." In the Company Indemnification Agreement—Credit, the Company:

[A]grees to indemnify and hold each PARTICIPATING BANK and the AUTOMATED CLEARING HOUSE harmless from any claims incident to the operation of this plan, including without limitation any claim based on alleged loss as a result of non-credit of any deposit, and any claim which may be made by any depositor as a result of the rejection of any of his checks, because of insufficient funds arising from the failure to credit deposits to his account.\textsuperscript{334}

The Company Indemnification Agreement Debit contains a similar indemnifying provision, which provides that:

Company hereby agrees to indemnify and hold each PARTICIPATING BANK and AUTOMATED CLEARING HOUSE harmless from any claim or claims incident to the operation of this plan, including without limitation any claim based on payment of any charges in the wrong accounts or at lesser or more frequent intervals than provided in the customer's authority, any claim based on alleged loss to the customer as a result of non-payment of any charge, and any claim which may be made by any customer as a result of the rejection of any of his checks because of insufficient funds arising from the charging of payment hereunder to his account.\textsuperscript{335}

By execution of either the debit or credit agreement, the customer (employee) agrees to settle any disputes with the company directly and, in the case of a debit entry, to release the bank from any responsibility for the correctness of any such charge. This would seem to be reasonable. The company is the source of the entry and its records must be checked to determine the correctness of an entry. If these inquiries—each time a customer questioned the amount of a bill, or an employee questioned his paycheck—were directed to the bank, it would result in an unworkable situation. The bank would first have to consult the company to determine the correct entry amount. Requiring the customer to go directly to the company would seem to be a reasonable alternative.

However, when the company indemnification agreement is added, the net effect of this structure of agreements is to provide the bank complete protection

\textsuperscript{332} Id. at 52-53.
\textsuperscript{333} Id. at 52.
\textsuperscript{334} Id. at 56-57.
\textsuperscript{335} Id. at 58-59.
from claims arising from the initiation of "paperless" preauthorized debits and credits. Contract terms are usually the result of bargaining between the parties. The final agreement depends upon the relative positions of each party and what they are willing to concede in order to gain the benefits resulting from the contract. Since success of this program will depend upon the participating banks' ability to sell the merits of SCOPE to companies and employees, modification of the company indemnification agreement may be required. It would seem that the bank has a much greater stake in the success or failure of this venture than the company. While indemnification against losses resulting from incorrect entries provided by the company is certainly necessary, these agreements may need to clarify that this protection is afforded the participating bank only from claims arising from an incorrect entry in the source material provided by the company. If modification is required, the banks' conflicting goals of limitation of liability and marketability of this service will have to be reconciled to determine the extent to which they are willing to limit the former in order to achieve the latter. The ultimate form and acceptability of these agreements will be of interest to many other groups who have organized to design similar programs.

Additionally, the success or failure of the SCOPE experiment may have a significant import on the future development of our payments system. It will provide valuable experience in the marketing of a different form of payment process, provide valuable "live" experience with a "paperless" payments system, and test the acceptability of contractual agreements between participating parties.

G. Hempstead Bank Experiment (ITS)

In addition to the SCOPE project, several other regional groups have formed to investigate alternative payments systems, or to establish mini Less-Check Societies. One such test which more closely parallels the model set out in the introduction of this survey was introduced by Hempstead Bank, Garden City East, New York. This program became operative on November 1, 1971. Called the Instant Transaction System, it will perform the following functions: (1) Verify card ownership through the use of a confidential code. This function will insure, prior to the transmitting of the transaction, that the individual using the card is the authorized owner. (2) Authorization of financial transactions. The system will insure that either available funds or a line of credit with a sufficient available balance exists before any transfers occur. (3) Automatic collection of source data. The system will collect and record all data relating to the financial transaction. For example, a participating merchant need not go to his bank to deposit checks, cash or charge card slips for crediting to his account.

336 HEMPSTEAD BANK, INSTANT TRANSACTION SYSTEM DESCRIPTION 1-2.
337 Id. at 2.
338 Hempstead Bank customers may apply for a line of credit which is tied into their checking account. If a transfer of funds from their checking account would result in an overdraft, the line of credit is activated and funds are transferred into the customer's checking account. Such cash advances will continue as long as the borrower has a sufficient unused available balance from his line of credit.
339 HEMPSTEAD BANK, supra note 336, at 2.
A typical transaction under the Hempstead Plan would occur as follows. Mrs. Buyer completes her shopping and the retail sales clerk fills out a sales slip. The sales slip is then inserted into the printer which is part of the “on line” terminal that has been installed in every participating retail merchant’s store. This terminal consists of three compact electronic components: the printer, the card reader and the verifier. Mrs. Buyer’s Instant Transaction (“IT”) card is inserted into the card reader. Mrs. Buyer then enters her secret code into the verifier by depressing numbered keys on the verifier. Unless the code entered by Mrs. Buyer agrees with the identical code embedded in the “IT” card, the transaction will not continue. After the secret number is verified, the sales clerk enters the amount of the sale in the card reader and presses a button to signify the end of the message. The card reader is connected directly with the bank’s computer (on-line) and the computer determines if there are sufficient funds in Mrs. Buyer’s account to cover the sale. Mrs. Buyer may also have an established line of credit with the bank so if there are not sufficient funds in her account the line of credit will be activated automatically, creating a loan to cover the sale. If there are sufficient available funds, the printer prints the sales slip which Mrs. Buyer will sign. She is given a duplicate copy of this sales slip. Mrs. Buyer’s checking account is debited and the funds are credited automatically to the retail merchant’s account.

The only written document utilized in this system is the sales slip. This allows Mrs. Buyer to validate the transaction and serves as a written record which may be used to update her checking account balance and reconcile her monthly checking account statement. Likewise the merchant’s copy of the sales slip allows him to update his bank balance and reconcile his monthly statement.

The Hempstead Bank plan will provide a useful test of the “money card” regarding consumer and merchant acceptability, protection against fraud through the use of the identification device, and general operational and legal problems likely to arise when a transaction is challenged.

One of the primary limitations of the Hempstead plan, as contrasted with the SCOPE project, is the requirement that both the card holder and the merchant maintain accounts with the sponsoring bank. In large areas, where several banks serve the same market area, more sophisticated inter-bank clearing procedures will need to be developed in order to test the acceptability of the concept.

D. Other Groups Studying the Payment Systems

In addition to the SCOPE project and the Hempstead Bank experiment, several other groups and associations have organized for the purpose of studying alternatives to our present payment system. Projects similar to SCOPE have been initiated in 19 areas: the Atlanta Federal Reserve district, Boston, Buffalo, Chicago, Cleveland, Columbus, Dallas, Houston, Indianapolis, Kansas City, Long Island, Maryland/Virginia/D.C., Minneapolis, New York City,
Philadelphia, Pittsburgh, Richmond, St. Louis, and Seattle. The Boston and Atlanta projects are patterned on the California SCOPE system.


1. American Bankers Association

The American Bankers Association, through its Monetary and Payment System (MAPS), Planning Committee, is doing continuous research in all areas of the payments system.

In April, 1972, the MAPS Committee published an Executive Report presenting some of its conclusions and recommendations based upon research it had conducted. The Committee, formed in 1968, undertook a study of the payments system to address three major questions:

1. Why change the present system?
2. If changes are needed, what changes?
3. What impact would these changes have on commercial banking and the public?

The Committee presented an Interim Report during the American Bankers Association annual convention in Miami in October, 1970. This Report:

[C]oncluded that change in the payment system could and should proceed in an orderly and somewhat pragmatic manner. This contrasted with some earlier prognosticators' views that we are facing a fairly immediate crisis in processing checks and that we are missing out on markets requesting payment services presently unavailable from commercial banks.

The Committee concluded, after thorough research on the outlook for check processing and an extensive investigation of the soundness of the present check-payment system, that the check-processing system can be sustained in an operationally sound condition for at least the decade of the 1970's. Further, the Committee concluded that there are two major routes to be pursued regarding change in the payment system: "(1) The establishment by the banking industry of a clearing and distribution system for electronic payments, and (2) the devel-

342 Bank Administration Institute, supra note 26, at 30-31.
343 Payments System, Inc., has been conducting seminars focusing on new concepts of electronic movement of money and money information. They also publish a monthly newsletter. Payment Systems Newsletter.
344 The American Bankers Ass'n, supra note 297, at 1.
345 Id. at 3.
346 Id.
opment of the full potential for change available through the bank charge card.\textsuperscript{347} Eventual realization of such objectives would result in a payment system similar to the Less-Check model set out in the introduction to this survey. Furthermore, the overall approach of the Committee substantiates the opinion earlier expressed that such a development will be a long-term evolutionary change.

2. Federal Reserve System

Another important force involved in our changing payment mechanism is the Federal Reserve System. As indicated above, several Federal Reserve District Banks, as well as the Federal Reserve System, have been studying the payments system. On June 17, 1971, the Federal Reserve Board issued a press release calling for basic changes in the nation’s system for handling money payments. The proposed changes were said to be essentially transitional steps toward replacement of the use of checks with electronic transfer of funds. The statement further noted that modernization of the nation’s manner of making financial transactions through the banking system “is becoming a matter of urgency.”\textsuperscript{348} While this sense of urgency seems to be somewhat inconsistent with the findings of the American Bankers Association’s MAPS Committee, it is further corroboration of the general need for some modification in the payments system. The immediate priority of the Board’s statement was to urge that the public be provided with faster, more convenient and more dependable check-clearing services by the establishment of regional clearing centers throughout the country.\textsuperscript{349} Such a structural change would serve to minimize the number of banks in the clearing process, thus reducing actual check handling and decreasing the time that certain checks are in the clearing process. It would not, however, change the basic means for payment settlement.

Another change proposed by the Federal Reserve aims at reducing the use of checks. This would be accomplished by encouraging banks and their customers to make greater use of the expanded capabilities of the Federal Reserve System’s communication network. The Board indicated that:

\begin{quote}
Inducements to begin replacement of money transfers by check with transfers via wire would be offered by (1) removing charges and other restrictions upon the use of the Federal Reserve’s wire network by member banks for transfers of $1,000 or more for their customers, (2) increasing the number of hours the network is open for business daily, and (3) expanding facilities at Reserve offices, where justified by traffic potentials, to equip them for high speed tape transmission and computer-communications.\textsuperscript{350}
\end{quote}

The establishment of such an expanded computer-to-computer communication network may well be the forerunner of the nationwide computer-to-computer communication network which is a requirement of a full-scale Less-Check Society.

\begin{footnotes}
\item[347] Id. at 6.
\item[348] Federal Reserve System Press Release (June 17, 1971).
\item[349] Id. at 2.
\item[350] Id. at 3.
\end{footnotes}
Recognizing that the above are only transitional steps in the evolution of the payments system, the Reserve System has three projects under way directed toward further study and improvement of the payments mechanism:\textsuperscript{351}

(1) Construction of a payments mechanism simulation model for the System. This will be used to aid in understanding the present payments system and to indicate the ways it can and should be improved.\textsuperscript{352}

(2) An in-depth study of exactly how payments are effected in Florida and Georgia.\textsuperscript{353}

(3) The cooperative participation of the Federal Reserve Bank of San Francisco and its Branch at Los Angeles with the Special Committee on Paperless Entry (SCOPE).\textsuperscript{354}

The most difficult problem faced by the many groups and organizations studying the payment system may be the coordination of their various efforts and the sharing of their joint knowledge and experience, which will lead to a compatible national system for the settlement of transactions and efficiently replace the overburdened check clearing process.

An additional essential element to the development of the Less-Check Society is an hospitable legal environment. Adequate protection must be afforded both the banking system and the user of the system. The following section discusses selected areas of existing law as they will relate to an EFTS.

V. Legal Problems and Solutions for the EFTS

Before the payments mechanism develops into an EFTS, practical solutions will be needed for the legal problems engendered by the new system.

We would not expect our new system to always operate without fault or flaw. Murphy's Law ("If a thing can go wrong, it will!") would come into play; its effect would be to create problems—only some of which had been foreseen by its planners.\textsuperscript{355}

Whether special laws will be required to meet the exigencies of the EFTS or whether the present laws are adequate to cope with any problems that may arise must be resolved. The leading commentators within the area differ as to the answers.\textsuperscript{356}

\textsuperscript{351} Id. at 5.
\textsuperscript{352} Id.
\textsuperscript{353} Id.
\textsuperscript{354} Id.
A. Application of the Uniform Commercial Code

1. In General

There are various schools of thought on the methods and legal framework which will be needed to handle the EFTS. Gerald T. Dunne, one of the leading commentators on the EFTS, suggests that Article 4 of the Uniform Commercial Code, dealing with Bank Deposits and Collections, should be amended, since Article 4 "will both facilitate the thrust of the future and be consumed as that future unfolds." Dunne states that:

The existing design of Article Four is, conceptually and verbally, hospitable to incorporation of a transfer system, and, perhaps, this is one of the cases in which the law might lead rather than follow the world of affairs by providing not only an initial foundation for relationships, responsibility and vocabulary, but also an infrastructure capable of supporting development as experience unfolds.

The reasons for amending Article 4 are diverse. Basically, the banking profession is known for its conservatism; its philosophy is one of "look before you leap." By providing a legal framework to govern an EFTS before its very existence, you solve the problem before it arises. Dunne's view is that "[h]owever valuable an itch for change and a taste for experimentation may be elsewhere, they should be minimal in organizations handling other people's money."

Dunne foresees two problem areas in revising the Uniform Commercial Code: nomenclature and structure. The problem of terminology can be easily solved and will not be dealt with since its importance for our purposes is minimal. The structure problem, however, gives rise to two possible courses of action. The first course could be called "total incorporation," if we may borrow from Justice Black's constitutional perspective of the applicability of the Bill of Rights to the states. This approach would involve integrating the EFTS into Article 4 as it presently exists. Proponents of such a step point out that the draftsmen of the Code recognized the need and made ample provision for flexibility sufficient to meet the problem of the large volume of checks handled and the changing requirements of the future. The second course would involve the addition of Part Six to the present Article 4 which would be called "Transfers of Bank Credit," and also the recaptioning of the Article as "Bank Deposits, Collections and Transfers." Such a revision would "be an element in the process of produc-

358 Dunne, Variations on a Theme by Parkinson, or Some Proposals for the Uniform Commercial Code and the Checkless Society, 75 YAL. L.J. 788, 796 (1966).
359 Id. at 797.
360 Id. at 799.
361 UNIFORM COMMERCIAL CODE § 4-101, Comment.
362 As part of the process of change, Dunne proposes a number of amendments to Article 3 as well as the addition of Part Six to Article 4. Two of the amendments in Article 3 are intended to obviate the possibility of negotiability becoming involved in transfers of funds by
nipping in the bud any legal encouragement to use bank transfer orders as checks. Following are Dunne's suggestions for Articles 3 and 4.

ARTICLE 3
COMMERCIAL PAPER
Part I

"Section 3-102. Definitions and Index of Definitions.

(3) The following definitions in other Articles apply to this article:

'Bank transfer order.' Section 4-601.

"Section 3-103. Limitations on Scope of Article.
(1) This Article does not apply to money, documents of title, bank transfer orders or investment securities.

"Section 3-805. Instruments Not Payable to Order or to Bearer.
This Article applies to any instrument whose terms do not preclude transfer and which is otherwise negotiable within this Article but which is not payable to order or to bearer, except that there can be no holder in due course of such an instrument. This Section has no application to a bank transfer order."

ARTICLE 4
BANK DEPOSITS, TRANSFERS AND COLLECTIONS
Part I

General Provisions and Definitions

"Section 4-101. Short Title.
This Article shall be known and may be cited as Uniform Commercial Code—Bank Deposits, Transfers and Collections.

"Section 4-104. Definitions and Index of Definitions.

(2) Other definitions applying to this Article and the sections in which they appear are:

'Bank transfer order' Section 4-601.
'Transferor' Section 4-601.
'Transferee' Section 4-601.
'Transferor bank' Section 4-601.
'Transferee bank' Section 4-601.

NEW MATERIAL
ARTICLE 4
Part 4

Relationship Between Payor Bank and Its Customer

Section 4-408. Destruction of Paid Items.
(1) A payor bank is authorized to destroy any item upon which it has made final settlement, provided it first makes a photocopy of the item and all endorsements thereon.
(2) Any such copy accompanied by a certificate of destruction under seal of the bank shall be admitted in all proceedings without further authentication or attestation to the same extent as the original check.

Part 6
Transfers of Bank Credit

Section 4-601. Bank Transfer Order; Transferee Bank; Transferee.
In this Article unless the context otherwise requires:
(1) "Bank transfer order" means an item issued by a transferor directly to a transferee bank directing the payment of a sum certain to a designated transferee bank for the credit of an indicated transferee;
(2) "Transferor" means any person from whom a bank has agreed to take bank transfer orders and includes another bank;
(3) "Transferee" is the person designated to receive ultimate credit for the amount of a bank transfer order;
(4) "Transferor bank" means any bank receiving a bank transfer order from a transferor;
(5) "Transferee bank" means a bank on whose books the account of the transferee is carried.

Section 4-602. Methods of Transfer and Payment.
(1) If the transferor bank and transferee bank are the same, a bank transfer order is effected by being charged to the account of the transferor and credited to the account of the transferee.
ing an environment in which banks will be more receptive to presenting, and their customers to receiving, proposals for new ways of making payments.  

Another legal commentator, Norman Penney, also believes that the Uniform Commercial Code is inadequate to meet the task of grappling with the EFTS. He devotes specific attention to section 4-406—"Customer's Duty to Discover and Report Unauthorized Signature or Alteration." The customer has an affirmative duty to examine promptly the statement of account which is made available to him and to "discover and report forgeries and alterations." If the customer fails to comply with this duty, the bank is relieved of liability as to the items bearing forged signatures or alterations provided that the bank has exercised ordinary care in making payment of the items. The Code also provides:

If, after the first item and statement becomes available plus a reasonable period not exceeding fourteen calendar days, the bank pays in good faith any other item on which there is an unauthorized signature or alteration by the same wrongdoer, which payment is prior to receipt by the bank of notification of such unauthorized signature or alteration on the first item, the customer is precluded from asserting the additional unauthorized signature or alteration.

An example of such a situation would be as follows: John Doe forges the name of his employer, John Smith, to a check drawn on First Bank, Smith's

(2) Where the transferor bank is not the transferee bank, it may effect a bank transfer order by charging the account of the transferor and directing a bank with which it has an account to charge such balance with the amount of the order and pass credit to or for the account of the transferee. If the bank receiving such order is not the transferee bank, it may pass such credit by a bank transfer order directed to the transferee bank or a bank holding an account of the transferee bank. A telegraphic or electronic transmission of any such direction between banks is an "item" within the definition of Section 4-104(g).

(3) A transferor bank must effect a bank transfer order by a reasonably prompt method, taking into consideration any relevant instructions, the nature of the transfer, the number of such orders on hand, the cost of transfer involved and the method generally used by it or others to effect such transfers.

Section 4-603. Responsibility for Transfer; When Action is Timely.

(1) A transferor bank must use ordinary care in
(a) effecting a bank transfer order;
(b) giving notice to the transferor of any delay in or failure of transfer within a reasonable time thereof.

(2) A transferor bank taking proper action before its midnight deadline following a receipt of a bank transfer order acts seasonably; taking proper action within a reasonably longer time may be seasonable, but the bank has the burden of so establishing.

(3) Subject to subsection (1) (a), a transferor bank is not liable for the insolvency, neglect, misconduct, mistake or default of a transferee bank.

Section 4-604. Delays.

Delay by a transferor bank beyond time limits prescribed or permitted by this Act or by instructions is excused if caused by interruption of communication facilities, suspension of payments by another bank, war, or emergency conditions beyond the control of the bank, provided it exercises such diligence as the circumstances require.

Section 4-605. Finality of Transfer.

A transfer is considered accomplished when the amount thereof has been posted to the account of the transferor or other person to be charged therewith.

Dunne, supra note 358, at 800-03.  

363 Dunne, supra note 358, at 797.  

364 UNIFORM COMMERCIAL CODE § 4-406, Comment 2.  

365 UNIFORM COMMERCIAL CODE § 4-406(2).  

366 UNIFORM COMMERCIAL CODE § 4-406, Comment 3.
usual bank of deposit. First Bank pays the item on June 1 and the paid item is sent to Smith with his monthly bank statement on June 7. Meanwhile Doe forges five more checks under Smith's name. Smith does not look at his vouchers and bank statement until June 26, but on June 23 the five additional forged checks are presented to First Bank and paid. Since Smith did not examine his returned statement within 14 calendar days after he received it, he cannot hold the bank liable for paying out the additional forged checks on June 23 absent a showing of negligence on the part of the bank. He is limited to holding his bank liable only for the first forged check paid on June 1.

In addition, failure on the part of the customer to discover and report his unauthorized signature within one year from the time the statement and items are made available bars him from asserting any claim and failure to discover any unauthorized indorsement within three years will preclude him from asserting against the bank such unauthorized indorsements. The Code treats differently alterations to the drawer's signature and unauthorized indorsements because the person can more easily and quickly detect an alteration of his own forged signature than he can of a forgery of an indorsement.

With the advent of the EFTS, problems would arise in that a customer would have difficulty complying with these requirements of section 4-406 since there would be no vouchers to examine. Without the vouchers, the customer cannot be held accountable for failure to examine for alterations or forgeries. An argument could be made for reading the requirements of "statement and items" of 4-406(1) in the disjunctive rather than in the conjunctive so that a bank could comply with this section's requirements by furnishing its customer only a statement for the period in order to show that debits and credits have been made to the customer's account. But before we reach this point we must resolve what may be the central issue concerning the applicability of Article 4 to an EFTS, viz., whether a record of magnetic tapes, arranged so as to convey orders or requests to pass money and embodied in magnetic tape or disc, may be classified as an "item" within the meaning of Article 4 of the Code.

The Code provisions of Article 4 provide the legal rules applicable to the deposit of an "item" in a bank. An "item" is defined in the Code as "any instrument for the payment of money even though it is not negotiable, but does not include money." Many legal commentators are reluctant to apply such a definition to a stored electronic message since Article 4 deals primarily with relationships which are dependent on the use of paper. John J. Clarke of the Federal Reserve System believes, however, that the definition is applicable and hence Article 4 covers the situation. He states that:

[I]n those situations in which, though the messages are items, Article 4 provides either no explicit rule or an inappropriate rule to govern the relation-

367 Uniform Commercial Code § 4-406(4).
369 Address by John J. Clarke, supra note 53.
370 Uniform Commercial Code § 4-104(1)(g).
ships between the parties, the Article is congenial to being supplemented and varied by agreements, while affording, in Section 4-103, an effective screen against unfairness.\textsuperscript{372}

Clarke's rationale is this: At the present time many insurance premiums are paid without the customer ever writing a check. The insurance company, with the permission of the policyholder, will create an insurance premium draft, drawn on the customer's bank, usually at monthly intervals. The policyholder will order his bank to honor these drafts as they come in. The payment approximates 1/12 of the annual premium but is less than what it would cost if the customer were to pay directly each month. The insurance company deposits the draft with its bank and it goes through the regular banking channels. The policyholder does not sign the draft since in fact he never sees it. Such a system has many benefits,\textsuperscript{373} one of which is that no bill need be sent out by the insurance company to its policyholders. In addition, all premiums will be paid on time, assuming that the depositor-policyholder has funds in his account sufficient to cover the draft. From the standpoint of the depositor-policyholder, he saves a service and postage charge by not having to write a check for his premium and then mailing it to the company.

Since such a plan relies on the documentary draft to communicate deduction orders, it is governed by the provisions of the Uniform Commercial Code.\textsuperscript{374} These deduction orders satisfy the definition of "items" since they are instruments for the payment of money. By taking the process one step further, the preauthorized payment plans will be combined with electronic data processing in the EFTS which will use magnetic tapes instead of paper "to convey the same information from the insurance companies to the insureds' banks through the banking system."\textsuperscript{375} Thus we come to the question of whether a stored electronic message can be classified as an "item" so that Article 4 will apply to what is actually the same transaction as before except for the fact that we have replaced paper with an electronic message. Article 4 as it now stands contains no definition of "instrument."

Clarke would then have us turn to the dictionary for the definition of "instrument" as "any object or artifact capable of conveying a message from a sender to a recipient."\textsuperscript{376} This definition necessarily implies that an "instrument" may take many forms "from the ancient clay tablets of Assyria to the sheet of Braille characters used to transmit messages to blind persons."\textsuperscript{377} Clarke goes on to state that:

It is a short step from Braille to ASCII, a Code in which conventional numbers, letters, and other signs are represented by agreed-upon combinations of electronic states (either plus or minus). It seems . . . that when a series of magnetic impulses are sent to a payor bank and received and stored in

\textsuperscript{372} Id.
\textsuperscript{373} Address by John J. Clarke, \textit{supra} note 53.
\textsuperscript{374} Id.
\textsuperscript{375} Clarke, \textit{supra} note 371, at 110.
\textsuperscript{376} Address by John J. Clarke, \textit{supra} note 53.
\textsuperscript{377} Id.
ASCII on tape, disc, or other storage medium, that the payor bank has received an instrument for the payment of money. The payor bank may be considered to have received an instrument because it obtains a message in a form on which it may rely in acting upon it, and which is capable of being retained as a durable record of the reason for that action.\textsuperscript{378}

Following Clarke's logic, we would conclude that stored electronic messages do constitute "instruments" for the payment of money and are covered by Article 4.

Assuming that the stored electronic message does constitute an "instrument" for the payment of money, \textit{i.e.}, an "item," it must be determined which of the provisions of Article 4 will be applicable to the EFTS. Perhaps the best way of providing a somewhat cursory look at the typical debit clearing plan\textsuperscript{379} is to trace its progress from deposit to payment or nonpayment and return.

2. Collection of Items: Depositary and Collecting Banks

The Code, at section 4-201(1), provides that the relationship between the owner of an item and each collecting bank in the chain is presumptively that of principal and agent or subagent.\textsuperscript{380} In our example, the insurance company is the principal while its bank of deposit is the agent and later collecting banks would be the subagents of the insurance company. Mr. Clarke believes that since the item would not bear an indorsement, section 4-201(1) would be inapplicable.\textsuperscript{381} However, since the Code states that the agency relationship exists regardless of the form of the indorsement or lack of indorsement, it would appear that 4-201(1) would be applicable.

The standard of care required by Article 4 is one of ordinary care in handling the item in the collection process.\textsuperscript{382} Whether this standard will be adequate to cope with the new technological improvements in the payments mechanism or whether a higher standard will be required is another question to be resolved.

\textsuperscript{378} Id.

\textsuperscript{379} Debit clearing plans, as opposed to credit clearing plans, result in an automatic flow of funds out of a bank customer's account. Payment of an insurance premium is an example of such a plan.

\textsuperscript{380} Uniform Commercial Code § 4-201(1) states:

\begin{quote}
Unless a contrary intent clearly appears and prior to the time that a settlement given by a collecting bank for an item is or becomes final (subsection (3) of Section 4-211 and Sections 4-212 and 4-213) the bank is an agent or subagent of the owner of the item and any settlement given for the item is provisional. This provision applies regardless of the form of indorsement or lack of indorsement and even though credit given for the item is subject to immediate withdrawal as of right or is in fact withdrawn; but the continuance of ownership of an item by its owner and any rights of the owner to proceeds of the item are subject to rights of a collecting bank such as those resulting from outstanding advances on the item and valid rights of setoff. When an item is handled by banks for purposes of presentment, payment and collection, the relevant provisions of this Article apply even though action of parties clearly establishes that a particular bank has purchased the item and is the owner of it.
\end{quote}

\textsuperscript{381} Clarke, \textit{supra} note 371, at 113.

\textsuperscript{382} Uniform Commercial Code § 4-202.
The assumption should not be made that what has worked well in the past will work equally as well in the future since it is doubtful that the draftsmen ever contemplated an electronic transfer of money. A change in this section is not necessitated since a higher standard of care may prove to be an unreasonable burden for the banks to bear, and hence we will accept the present standard as being adequate to cope with the EFTS.

The "chain of command" theory\(^{383}\) of section 4-203\(^{384}\) covering the effect of instructions by the immediate transferor to his collecting bank concerning the handling of an item is an indication of the desirability of speed in the collection process and should be retained. Note that this section deals only with collecting banks. Payor banks are required to make proper payment of an item and whether the payment is proper should continue to be based on the facts of the case in conjunction with the applicable rules of Articles 3 and 4.\(^{385}\)

Section 4-204 on the methods of sending and presenting items would be applicable to the EFTS. The Code provides that the collecting bank must send its items by a reasonably prompt method.\(^{386}\) By transferring the stored message through one bank's computer facility to another's almost instantaneously, the requirements of this section would seem to be met.

An individual may deposit an item in his bank which is payable to his order and forget to endorse it. In order to avoid any undue delay which would be caused by the bank returning the item to the depositor, the Code in section 4-205 permits the depository bank to supply the missing indorsement unless the item contains the words "payee's indorsement required" or the like. Such a provision would be inapplicable to the EFTS since an indorsement would not be needed by the depositor in order to effectuate the collection process.

Section 4-206 dealing with transfers between banks would be applicable as long as the depository bank added something so as to identify its source and date of deposit; and succeeding collecting banks would add routing information at the time of each further transfer.\(^{387}\)

The Code, at section 4-207, sets forth certain warranties of the customer and collecting bank on transfer or presentment of items.\(^{388}\) Such warranties

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\(^{383}\) Uniform Commercial Code § 4-203, Comment.

\(^{384}\) Uniform Commercial Code § 4-203 states:
Subject to the provisions of Article 3 concerning conversion of instruments (Section 3-419) and the provisions of both Article 3 and this Article concerning restrictive indorsements only a collecting bank's transferor can give instructions which affect the bank or constitute notice to it and a collecting bank is not liable to prior parties for any action taken pursuant to such instructions or in accordance with any agreement with its transferor.

\(^{385}\) Uniform Commercial Code §§ 4-203, Comment.

\(^{386}\) Uniform Commercial Code § 4-204.

\(^{387}\) Clarke, supra note 371, at 113.

\(^{388}\) Uniform Commercial Code § 4-207 states:
(1) Each customer or collecting bank who obtains payment or acceptance of an item and each prior customer and collecting bank warrants to the payor bank or other payor who in good faith pays or accepts the item that
(a) he has a good title to the item or is authorized to obtain payment or acceptance on behalf of one who has a good title; and
(b) he has no knowledge that the signature of the maker or drawer is unauthorized, except that this warranty is not given by any customer or collecting bank that is a holder in due course and acts in good faith
(i) to a maker with respect to the maker's own signature; or
would be generally applicable to the new payments mechanism with certain exceptions. Section 4-207 (1)(b) would not apply since signatures would not appear on the "instrument," nor would the "except" clauses of section 4-207 (1)(c) apply because of the nature of the instrument. 389

Section 4-208 covering security interests of the collecting bank and section 4-209 which makes the security interest in the preceding section sufficient to constitute the "value" requirement for a holder in due course will be applicable in the new system and will be incorporated. Usually, an item is presented for acceptance or payment by exhibiting the item to the payor in person or by mail. The Code provides a method of presentment to nonbank payors which permits the collecting bank to send notice to the nonbank payor that the bank holds the item for acceptance or payment. 390 This notice imposes a duty on the payor to respond if the item is not to be considered dishonored. 391 Under the new payments system, such a requirement would be obviated by the instantaneous transfer which the depositor-payor has authorized beforehand.

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389 Clarke, supra note 371, at 113.
391 Uniform Commercial Code § 4-210, Comment 1.
3. Remittance

The Code provides a number of methods by which a payor bank or a non-bank payor may remit the proceeds of an item to the collecting bank. However, any inter-bank settlements of electronic items probably will be effectuated through credit and debit entries on the books of a Federal Reserve Bank thus eliminating the need for section 4-211.

It is difficult to comprehend the practical applicability to the new system of section 4-212 dealing with the right of charge-back or refund. Under the present system, many banks make provisional settlement for items received from their customers and then await later determination of whether the item is eventually paid. The reason for this is that it has been statistically proved that 99 percent of items are eventually paid. Consequently, it is usually unnecessary for the banks granting provisional settlement to make any further entries. However, under the EFTS, the bank receives almost instantaneous notice of whether the "instrument" is acceptable so that little time elapses between the instant when the bank receives the order to pay and the instant when a check is made of the adequacy of the payor's account.

Section 4-213 deals with final payment of an item by the payor bank.

392 Uniform Commercial Code § 4-211.
393 Clarke, supra note 371, at 113.
394 Uniform Commercial Code § 4-212, Comment 1.
395 Uniform Commercial Code § 4-213, states:

(1) An item is finally paid by a payor bank when the bank has done any of the following, whichever happens first:
   (a) paid the item in cash; or
   (b) settled for the item without reserving a right to revoke the settlement and without having such right under statute, clearing house rule or agreement; or
   (c) completed the process of posting the item to the indicated account of the drawer, maker or other person to be charged therewith; or
   (d) made a provisional settlement for the item and failed to revoke the settlement in the time and manner permitted by statute, clearing house rule or agreement.

Upon a final payment under subparagraphs (b), (c) or (d) the payor bank shall be accountable for the amount of the item.

(2) If provisional settlement for an item between the presenting and payor banks is made through a clearing house or by debits or credits in an account between them, then to the extent that provisional debits or credits for the item are entered in accounts between the presenting and payor banks or between the presenting and successive prior collecting banks seriatim, they become final upon final payment of the item by the payor bank.

(3) If a collecting bank receives a settlement for an item which is or becomes final (subsection (3) of Section 4—211, subsection (2) of Section 4—213) the bank is accountable to its customer for the amount of the item and any provisional credit given for the item in an account with its customer becomes final.

(4) Subject to any right of the bank to apply the credit to an obligation of the customer, credit given by a bank for an item in an account with its customer becomes available for withdrawal as of right:
   (a) in any case where the bank has received a provisional settlement for the item—when such settlement becomes final and the bank has had a reasonable time to learn that the settlement is final;
   (b) in any case where the bank is both a depository bank and a payor bank and the item is finally paid—at the opening of the bank's second banking day following receipt of the item.

(5) A deposit of money in a bank is final when made but, subject to any right
Final payment marks the "end of the line in the collection process and the turn around point commencing the return flow of proceeds." This provision could be applicable to the EFTS with the exception that 4-213(2) may be omitted since provisional settlement would probably not exist in the new system.

If the "item" was sent by the collecting bank to a payor bank which, at the time of receiving it, was insolvent, then section 4-214 would be applicable. The main difference in the new payments mechanism would be that the "item" would not be in transit nearly as long as a check so that the collecting bank would become aware of the insolvency almost at the very moment of transfer, thus giving rise to an automatic return of the "item." Section 4-214(2) would be inapplicable since an EFTS item would not go through the posting process of the payor bank, being finally paid and then having the payor bank suspend payment before settlement has been made for the item which is final, thus eliminating the need for permitting the owner of the item to have a preferred claim on the payor bank's assets.

4. Collection of Items: Payor Banks

Sections 4-301 and 4-302 provide specific rules concerning deferred posting and delayed returns. Once again, it is difficult to conceive of a situation where these sections would be applicable when an electronic "item" is to be returned "either to enable the payor bank to avoid becoming accountable for the item, or to entitle it to recoup a provisional payment made for the item." When writing these sections, the draftsmen undoubtedly envisaged a deferred posting procedure which involved a certain length of time, perhaps 24 to 48 hours or more—not a high-speed electronic process as contemplated by the EFTS. Under
the system, a payor bank would know in a matter of seconds whether or not the item was properly payable.

Hence, in the case of such an item that was not to be paid, there would be no need to keep the time to return open by making a provisional payment; the statute would be satisfied if the item were returned on the banking day of receipt. The use of the direct-return procedure, where permissible, to recoup the amount provisionally paid, would thus be unnecessary.400

For the purposes of satisfying section 4-301(4) dealing with the return of an item,401 it would seem that "either a print-out of the item (with a description of its routing) or a tape facsimile (with the same description) would be the writing to be returned."402

When a payor bank receives an item, payment is withheld if the bank has received knowledge or a legal notice which affects the item, such as notice that the drawer has filed a petition in bankruptcy.403 In addition, the bank may not make a final payment of the item if it receives a stop payment order from the drawer, or if a creditor of the owner of the item levies on it, or if the bank exercises a right of set-off against the drawer's account.404 However, the Code sets out five situations in which the above circumstances may come too late to be effective.405 Whether one of these situations occurred so as to terminate the bank's right should be as easily ascertainable under the EFTS as under the paper payments method currently in operation.

5. Relationship Between Payor Bank and Its Customer

Section 4-401(1) provides the basic rule that when an item is properly paid out of the drawer's account, the bank may charge his account; and when there are insufficient funds to cover the item, the bank has the option of either returning it for "NSF" or providing an overdraft. It is apparent that this section should be maintained part and parcel under the new system since overdraft banking is considered as one of the prerequisites to the implementation of the EFTS because of the elimination of the float. The overdraft, in effect, creates an implied promise on the customer's part to repay the bank if the overdraft arises.

If an item is drawn on a bank and the bank wrongfully dishonors it, then under section 4-402 it is liable to the customer for damages proximately caused by the wrongful dishonor of the item. It is obvious that in the new payments

400 Id.
401 UNIFORM COMMERCIAL CODE § 4-301(4), states:
   An item is returned:
   (a) as to an item received through a clearing house, when it is delivered to the
   presenting or last collecting bank or to the clearing house or is sent or
   delivered in accordance with its rules; or
   (b) in all other cases, when it is sent or delivered to the bank's customer or
   transferor or pursuant to his instructions.
402 Clarke, supra note 371, at 114.
403 UNIFORM COMMERCIAL CODE § 4-303.
404 UNIFORM COMMERCIAL CODE § 4-303, Comment 1.
405 UNIFORM COMMERCIAL CODE § 4-303(1)(a)-(e).
system such a wrongful dishonor could prove to be extremely embarrassing in some cases. For instance, suppose one Saturday morning Mrs. Smith goes to her local grocery store to do her week’s shopping. After filling her basket, she patiently waits in the line which seems extremely long this morning. Finally she empties her basket on the counter and the clerk rings up her bill. After it is totalled, Mrs. Smith presents her identification card and the clerk inserts it into the store’s electric communicator apparatus which is hooked-up with Mrs. Smith’s bank. A few seconds later the reply comes back on the card-reading device saying “Mrs. Smith’s account overdrawn—do not allow purchase.” One can easily imagine Mrs. Smith’s reaction, especially if her balance was actually sufficient to cover the cost of the groceries. The Code states in section 4-402 that when the dishonor occurs through mistake, liability is limited to actual damages. Many commentators may advocate a change in this limitation in light of the fact that Mrs. Smith would suffer a great deal of embarrassment as a result of the reactions of the other Saturday shoppers behind her in the check-out line. However, the actual damage limitations should be retained if the system is to work expeditiously. Mrs. Smith’s case is analogous to that of the merchant, trader, or fiduciary who is defamed in his business, trade, or profession by a reflection on his credit as a result of an item being mistakenly dishonored. Although these people argue for awards based on defamation “per se” without proof that damage has occurred, the draftsmen of the Code suggest that they be placed on the same footing as any other drawer in all cases of mistaken dishonor. It should be noted that most preauthorized insurance premium payment agreements provide that upon dishonor, “whether with or without cause and whether intentionally or inadvertently, a bank shall have no liability whatsoever even though such dishonor results in the forfeiture of insurance.” However, the courts may find that if such agreements exist in the EFTS they may be voided as a matter of public policy since they contravene section 4-402 which places liability on the payor bank for damages proximately caused.

Another service which customers expect and are entitled to receive from a bank besides preauthorized payments is that of stopping payment. Section 4-403 permits the customer to stop payment of an item provided it is timely, i.e., received at such time as to enable the bank to have a reasonable time to act on it prior to any action which would constitute “final payment.” One problem which arises is that the typical preauthorization agreement requires the customer to exercise his revocation power only by written notice. “In substance this has the same force and effect as a provision requiring written communication of a stop-

406 See Bank of Louisville Royal v. Sims, 435 S.W. 2d57 (1968), where plaintiff recovered $631.50 for the wrongful dishonor of two small checks. This sum included the following items of damage: $1.50 for a telephone call, $130 for two weeks’ lost wages, and $500 for “illness, harassment, embarrassment and inconvenience. Dishonor was due to a mistake and was not malicious. In reversing the amount allowed for wages and embarrassment, the court stated that “these nebulous items of damage bore no reasonable relationship to the dishonor of her two checks and consequently they could not be classified as actual damages proved.” Id., at 58. Whether the embarrassment suffered by Mrs. Smith is a damage proximately caused so as to afford her a right of recovery under section 4-402 is a question that must be determined according to the facts of the particular case.

407 Uniform Commercial Code § 4-402, Comment 3.

408 Address by John J. Clarke, supra note 53.

409 Uniform Commercial Code § 4-403, Comment 2.
payment order.\textsuperscript{410} This is in direct controverson of section 4-403(2) which provides that an oral stop-payment order is binding on the bank for 14 calendar days. Whether a provision which prohibits the effectiveness of an oral stop-payment order contravenes public policy will be left to judicial determination.\textsuperscript{411} Perhaps the Code could be amended to resolve this problem since a written communication will obviously be ineffective because of the speed of the electronic transfer system.

Section 4-404 dealing with stale checks, \textit{i.e.}, checks presented more than six months after their date, would be inapplicable in the EFTS since checks would be eliminated.

Under section 4-405(1) the drawee-payor bank is freed from liability for the payment of a check prior to receipt of notice of the death or incompetence of the drawer. The rationale for this rule is that it would place an undue burden on a bank to ascertain the continued life and competency of every one of its customers.\textsuperscript{412} Such a theory will be especially applicable to the new system with its increased reliance on electronic transmission of items by almost every person within the United States. Section 4-405(2) provides a ten-day period after death in which a bank with notice of death may continue to pay checks. Such a provision should be applicable in the EFTS since it will facilitate the payment of certain recurring bills, thus eliminating the need to go through probate since such bills would probably require payment. Thus the logic for having such a rule in a paper-based system will carry over to an electronically based system.

Perhaps the area in which some of the greatest debates concerning the applicability of Article 4 to an electronic payment system will occur is section 4-406 dealing with the customer's duty to discover and report unauthorized signatures or alterations. As was mentioned earlier, Norman Penney would find it difficult to accept the section as applying to an EFTS.\textsuperscript{413} However, Mr. Clarke foresees no serious problems in its applicability:

> The issue to be determined is the nature of the "item" which, by hypothesis, the bank received and acted on when it was but a conglomerate of electronic states, invisible to human sight, though capable of being "read" by machine. Should the bank printout the essentials of the messages on the statement; or should it print it out completely and send it as the item...? It is submitted that the courts should regard either form as a sufficient satisfaction of the statute if the customer were able to determine, from the data given, whether the item was properly payable and chargeable to his account. ... If the item was not the customer's, but was someone else's, the customer has an obligation, quite independent of section 4-406, to examine the statement with reasonable dispatch and with reasonable care, and to inform the bank of errors discovered.\textsuperscript{414}

Accepting this rationale, one problem is foreseeable. If the bank were to

\textsuperscript{410} Address by John J. Clarke, \textit{supra} note 53.
\textsuperscript{411} Any conflict within this area could be resolved by looking to section 4-103 which provides that "the effect of the provisions of this Article may be varied by agreement. ..." Banks by agreement could rule out any oral stop payment orders.
\textsuperscript{412} Uniform Commercial Code § 4-405, Comment 2.
\textsuperscript{413} \textit{See} text accompanying notes 364-69 \textit{supra}.
\textsuperscript{414} Clarke, \textit{supra} note 371, at 115, 116.
print out the essentials of every message on the statement, this could conceivably give rise to a computer print-out which would stretch from the customer's bank to his home, thereby increasing the paperwork, the very thing which the EFTS would be trying to eliminate. Although this may be an extreme hypothesis, it is not totally unrealistic.

Finally, section 4-407 dealing with the payor bank's right of subrogation on improper payment would continue to be applicable in the EFTS and would be retained.

At this point it is perhaps appropriate to recall that the above discussion of the applicability of the Code, particularly Article 4, to the EFTS is completely contingent upon a prior determination that a stored electronic message is within the coverage of the Article; that is, whether it is an "item."415 Certainly, a cogent argument can be made that a stored message does not constitute an "item." Even assuming that an electronic message does come within the coverage of Article 4, one problem remains. The Code deals only with debit transfers,416 while making no provision for credit transfers which will play a significant role in the EFTS. For instance, when the system is operating at its potential optimum level, the amount of money which we earn at work will be credited to our accounts at our banks by the minute. Companies in which we own stock will send dividend checks directly to our banks instead of to our homes. There are various other credit transfers that could be handled similarly, yet the Code does not contemplate how to handle the legal problems that may arise from such transfers. This is not at all surprising. At the time the Code was drafted, no one foresaw that the future of the payments mechanism would lead to electronic debits and credits. In fact, the computer had barely made its appearance on the American scene.417 Thus the need arises for ground rules which will supplement the existing body of law found in the Code in order to deal with electronic credit transfers. In fact, it may be more beneficial to depart entirely from the Code as it now stands and opt for something else which would cover both debit and credit transfers. One possibility would be the drafting of a more comprehensive statute. However, most legal commentators believe that "it is far too early to draft statutory language that would control the operation of a system not yet fully planned, let alone operative."418 As Mr. Clarke stated in his talk before the National Automation Conference in New York City, on July 15, 1964:

One point that continues to baffle me is that of anticipating the possible factual situations on a sufficiently broad scale, of spelling out the possible combinations of factors that should influence a determination of liability on the part of one of the banks and of reaching, in each case, a nice balancing

415 For the definition of "item," see Uniform Commercial Code § 4-104(1)(g).
416 See supra note 379.
417 The Uniform Commercial Code was promulgated by the American Law Institute and the National Conference of Commissioners on Uniform State Laws, with the endorsement of the American Bar Association, in the fall of 1951. Article 4, however, adopts many of the rules of the American Bankers Association Code of 1929, long before computers were in existence. Report No. 1 of the Permanent Editorial Board for the Uniform Commercial Code. See text accompanying note 526 supra.
of the equities as between the banks that would clearly dictate an acceptable result.\footnote{419}{Id. at 941 n.13.}

B. Is Contract the Answer?

Another means for covering both debit and credit clearing plans and for allocating responsibility for errors associated with the use of computers and communications facilities may be found in private contract rather than in public legislation. Even the Code provides that variation of Article 4 may be made by agreement so long as no agreement disclaiming the bank’s responsibility of ordinary care or lack of good faith is made.\footnote{420}{Uniform Commercial Code § 4-103(1).}

Because of the great technical complexity of the EFTS, there will exist a greater chance of error due to technical malfunction. Certainly any system which would involve over 200 million people, thousands of banks and highly expensive and complex communications facilities is bound to eventually encounter some sort of malfunction. One need only look to the MICR encoding system presently being employed to see that, no matter what type of precautions are taken, errors will creep into the system. And the errors will subsequently give rise to liability on someone’s part. For example, one of the dangers\footnote{421}{See text accompanying notes 47-60 supra.} of the MICR system arises from the scratched-out check. Illustrative of this danger is the hypothesis of the two women who go shopping together. Mrs. Borrower finds herself without any money and borrows a blank check from Mrs. Lender. Mrs. Borrower crosses out the name of Mrs. Lender’s bank, substitutes the name of her bank, and then presents the crossed-out check to the retailer, obviously unaware of the significance of the MICR characters on the bottom of the check. Eventually the check is sent through the collection process by means of high-speed processing equipment and is charged against Mrs. Lender’s account since the machine only picks up the magnetic characters and ignores any other alterations. The result could prove disastrous to Mrs. Lender. This check may have overdrawn her account so that subsequent checks would not clear due to insufficient funds, which in turn could result in her credit rating being impaired.

Although the above example is not likely to be an everyday occurrence, it could happen. Certainly under the EFTS, with the tremendous burden placed on computers and advanced technological communications devices, the probability of perfect execution of every transaction is slim indeed. Assume for the moment that the setting is the year 1990 when funds are transferred electronically and the system is in full operation. Customer A from New Jersey goes to New York City one weekend and purchases a number of items from department store B. A directs his bank through a voice recognition device to pay B $100 in settlement of his account at the store. But then suppose something goes wrong. “The originator of a transaction, being human, could make a mistake; the computer, being man-made, could malfunction or not function at all.”\footnote{422}{Clarke, supra note 371, at 131.} Perhaps the bank would pay too much or not enough. Or perhaps the right amount is transferred but to the wrong payee. Or the funds may be debited to the wrong account. A
computer malfunction is an inevitable occurrence in any system of this magnitude so the question of culpability for misfire must be resolved. If we could immediately determine who caused the misfire, then fixing responsibility for the loss would be an easy task. In all probability, however, the question of causation would be extremely difficult to determine in most instances. A may have given an incorrect instruction or the computer may have misfired at the moment of instruction. One way to discover and solve this problem is to provide A with a playback of his instructions by means of a voice-answer-back mechanism and a print-out of those same instructions. This would enable A to compare his oral instructions with those received by the computer in order to ascertain whether or not he was responsible for any error. Assuming that the print-out corresponded with his instructions, we would then look to either the bank or the proprietor of the system to determine culpability for error. “As a matter of general legal principles, it would seem that, only if the proprietor could show the intervention of some force majeure, could it be relieved of responsibility for the loss.” If the proprietor could show that the malfunction did occur as a result of such an occurrence, then the problem of who is liable is compounded. A’s bank account would be debited to reflect payment to the payee-department store. But because of the misfire, A might still owe the money, or his bank may have parted with funds without the proper authorization from him.

As between the two, the equities do, perhaps, slightly favor fixing the loss on the proprietor, although it is recognized that no principle of law should fix the loss in that way without a specific agreement to that effect on the proprietor’s part. Thus, the latter, in effect, would have to guarantee the proper working of devices under its control, despite the intervention of force majeure. Indeed, it may be thought that, unless such a guarantee were to be extended, banks and their customers, in general, might be reluctant to avail themselves of the services the system offered.

This is not to say that the proprietor would be culpable at all times. The terminal and communication facilities of A’s bank may break down due to neglect on the bank’s part or A himself may have given the wrong instructions and failed to rectify the problem within a reasonable time. It will not be unusual to have mechanical breakdowns due to the manufacturer’s failure to detect some defect during its quality control checks. Such a failure could lead to a situation in the future where a large computer manufacturer would have to call back some of its hardware because of an inherent defect in the same manner in which many cars have been recalled by the automotive manufacturers in the past. Indeed, any number of problems can and will arise in such a system so as to shift the loss from the proprietor.

423 Clarke, supra note 418, at 939.
424 Force Majeure is an event or effect that cannot reasonably be anticipated or controlled.
425 Clarke, supra note 355, at 131-32.
426 Clarke, supra note 371, at 939. Clarke also advocates the idea of “mutualization of loss” whereby the proprietor of the system as well as the manufacturer of the equipment would contribute to a type of mutual fund in order to protect themselves against loss. In addition, once the system is in operation, insurance companies would be sure to come out with a policy covering malfunctions and subsequent risks of loss.
Legislation does not appear to be the viable answer to meet these problems because of the difficulty of getting uniform legislation throughout the fifty states, in addition to the District of Columbia. Uniformity would be a necessary ingredient in order to meet the challenges of the national interchange system which is ultimately planned.

Only if Congress could obtain total leverage, or enough leverage to make almost obligatory conformity by the individual jurisdictions, would it be desirable to propose such legislation as might be necessary to correct any court-made rules that were obviously unjust, or to offset any abuses that could be dealt with only by means of legislation.427

In addition to the difficulty of attaining uniform legislation, there is the problem of attempting to anticipate all the possible legal problems which the system would give rise to so that the legislation could be geared to provide the appropriate answers. As Roy N. Freed has said: "The different types of legal implications that might flow from banking mechanization are as varied as the many sources of legal rules out of which they might arise."428 With the tremendous advances being made almost daily in the technological area, it is conceivable that by the time the American Law Institute and the National Conference of Commissioners on Uniform State Laws draft legislation to meet the EFTS's problems, the legal principles involved would be so antiquated that there would then be a need for more legislation.

Resort to contractual arrangement could provide the answer for a smoother, more effective legal environment in the paperless system. Basically, the EFTS will involve three relationships: (1) between the cardholder and his bank; (2) between the retailer or other payee and his bank; and (3) among banks.429 This is analogous to the tripartite arrangement of the present bank credit card system—430—a system which many believe to be the forerunner of the EFTS. Since the relationships will be the same, it would seem reasonable that the rules and regulations of both systems would be similar. Under the present system, the bank and its cardholders ordinarily execute an agreement which covers such things as the maximum credit limit allowed to that particular customer, interest rates chargeable on certain balances, billing period, etc. In addition, the Federal Truth-in-Lending Act establishes various legal responsibilities. Thus, the basic relationship between the customer and his bank is already fixed by statute, custom and agreement.431 Since the present system appears to be functioning relatively well in the bank card area, there is no reason why it should not be extended to the EFTS. Contractual arrangements could be expanded to include the manufacturers of the equipment, the proprietors and all others who could have a stake in the system. For instance, the bank and its customers could enter into a

427 Clarke, supra note 418, at 941.
430 See text accompanying notes 121-37 supra.
431 Clarke, supra note 418, at 940. See text accompanying notes 242-55 supra.
contract whereby the bank agrees to exercise a prescribed standard of care. A failure to fulfill this standard which results in a malfunction would place liability on the bank. Or the bank may have undertaken the completion of its transactions as ordered by its customer, yet some error occurs which is beyond its control. An agreement previously made between the bank and the proprietor of the system should cover any contingencies of this nature. These contractual provisions should spell out "all the possible combinations of factors that should influence any determination of liability on the part of the parties affected." For example, these contracts should "define how the respective parties will suffer losses, either by paying out damages or by foregoing the receipt of damages as compensation." It is hoped that this approach will allow the proposed system to develop unfiltered and unfettered by the inability of the Code to provide for the contingencies of a system of this magnitude.

C. Federal Reserve System

In addition to the use of contractual provisions to fill the gaps created by the inability of the Code to handle the EFTS's legal problems, an alternative route has been suggested which contemplates the use of Federal Reserve regulations and operating letters.

The Federal Reserve System was inaugurated in 1914 under the terms of the Federal Reserve Act which was designed to "furnish an elastic currency, to afford means of rediscounting commercial paper, to establish a more effective supervision of banking in the United States, and for other purposes." The Federal Reserve System consists of five main divisions: (1) the Board of Governors which is the main policy forming and supervisory body; (2) the 12 Federal Reserve Banks and their 24 branches which carry on most operating functions and translate the policies of the Board of Governors into action; (3) the Federal Open Market Committee which forms the policy on open market operations of the system; (4) the Federal Advisory Council which advises the Board of Governors on matters of policy; and (5) the thousands of banks that have taken out membership in the Federal Reserve System.

Under the Federal Reserve Act, the Board of Governors of the Federal Reserve System has the authority to direct the Federal Reserve Banks to exercise bank collection functions. For example, section 16 of the Act authorizes the Board of Governors to make regulations governing the transfers of funds, and therefore charges, among Federal Reserve Banks and their branches and to exercise the functions of a clearinghouse for its members. These regulations

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432 Clarke, supra note 355, at 133.
433 Freed, supra note 428, at 357.
435 38 Stat. 251.
436 3 CCH FED. BANKING L. REP. ¶ 35,104 (1968).
437 District No. 1, Boston; District No. 2, New York; District No. 3, Philadelphia; District No. 4, Cleveland; District No. 5, Richmond; District No. 6, Atlanta; District No. 7, Chicago; District No. 8, St. Louis; District No. 9, Minneapolis; District No. 10, Kansas City; District No. 11, Dallas; District No. 12, San Francisco.
authorize the Federal Reserve Banks to promulgate rules governing operating
details.439

Turning to the Uniform Commercial Code once again, it is recalled that
section 4-103(1) confers "blanket power to vary all provisions of the Article by
agreement" (so long as the agreements do not disclaim the bank's responsibility
for its own lack of good faith or failure to exercise ordinary care).440 The Code
also provides that "Federal Reserve regulations and operating letters, clearing
house rules, and the like, have the effect of agreements under subsection (1),
whether or not specifically asserted to by all parties interested in items
handled."441 The question is then raised whether this "variation by agreement"
under section 4-103 permits the "addition of substantive matter to the statute,
as well as the derogation or change of matter already contained in the statute?"442
In answering in the affirmative, Mr. Clarke states that:

If resort is had to Section 1-102 (to which Section 4-103 seems ancillary),
it is seen that one of the underlying purposes and policies of the Code is to
permit the continued expansion of commercial practices through . . . agree-
ment of the parties.

This provision of Section 1-102 points toward an unequivocal answer:
substantive matter may be added by agreement.443

It would appear that the flexibility provided by the use of clearinghouse
rules and the Federal Reserve System would permit ad hoc reaction to problems
as they are encountered.444 Once again answers must be given to two problems.
At the present time, Regulation J covers the collection of checks and other items
by Federal Reserve Banks. Whether a stored electronic message constitutes an
"item" so as to bring it within the coverage of this regulation or whether the
Board of Governors would have to promulgate a new rule to cover the EFTS
must be resolved.445 The second question concerns the fact that the power con-
ferred on the Board of Governors extends only to the 12 Federal Reserve Banks
and their 24 branches.446 The Board's power quite dearly does not extend to
the so-called "member banks" of the Federal Reserve System. Gerald Dunne,
however, foresees no problem in expanding the section to include "member
banks." He states:

It would not strain this authority . . . for the Federal Reserve to promulgate
a uniform and comprehensive set of ground rules which not only cover wire

439 Uniform Commercial Code § 4-103, Comment 3.
440 Uniform Commercial Code § 4-103, Comment 2.
441 Uniform Commercial Code § 4-103(2).
442 Clarke, supra note 371, at 117.
443 Id.
444 Address by John J. Clarke, supra note 53.
445 The term "item" means any instrument for the payment of money, whether
negotiable or not, which is payable in a Federal Reserve district, is sent by a sender
or a nonbank depositor to a Federal Reserve bank for handling under this part, and
is collectible in funds acceptable to the Federal Reserve bank of the district in which
the instrument is payable; except that the term does not include any check which
cannot be collected at par.
transfers going through its books but which bind all parties in interest between the starting and ending points in the commercial banking system.447

Dunne's thesis is difficult to accept since he appears to confer authority on the Board of Governors beyond that set out in the statute. Were the Board to attempt to set down legal rules governing all parties in interest, the courts would certainly nullify such enactments as beyond the scope of the Board's authority. In order for the Board of Governors to have effective control over the EFTS, Congress would have to amend 12 U.S.C. § 248(o) to bring member banks within the control of the Board. But if Congress were to grant the Board this expanded power over member banks, the problem of providing a legal framework for nonmember banks would remain.

Of the approximately 13,600 commercial banks448 operating within the United States, not quite half are member banks of the Federal Reserve System. These member banks, however, hold about 5/6 of all commercial banking assets.449 The advent of the EFTS is certain to bring about changes within the banking structure. One of these changes will probably be the reduction and perhaps total elimination of the smaller banks. Four factors will be influential in bringing about any future reduction in the number of chartered banking offices:

1. remote control banking will make it possible for large banks to cover wider geographic areas;
2. remote control banking would reduce the need for branches;
3. the cost of automating will be prohibitive for small banks; and
4. small banks will merge in order to meet competition.450

The president of a small bank in Wisconsin perhaps best summed up the plight of small banks after the introduction of the EFTS when he stated:

Since banking is a personal matter and customer contact so important, I feel if this were eliminated due to a checkless society, there would be no advantage for a customer to do business with his local bank. The large powerful city banks would end up doing all the business. It's hard enough to compete with them now.451

If the smaller banks do have to merge in order to survive within the system, the probability is that they will merge with the larger banks which are already members of the Federal Reserve System. Such a development would bring the great majority of the banks within the coverage of the Board of Governors. However, the Board's control, as pointed out, would be contingent upon Congressional adoption of an amendment to 12 U.S.C. § 248(o) such as that discussed above. Whether this hypothesis is correct is problematical. Perhaps the smaller

448 Address by John J. Clarke, supra note 53.
450 SAN DIEGO STATE COLLEGE, SCHOOL OF BUSINESS ADMINISTRATION, SUMMARY BANK SURVEY REPORT 3 (Oct. 1968).
banks will not be forced to merge in order to survive within the EFTS. But if they do, the question of potential antitrust violations under section 7 of the Clayton Act will certainly emerge as a critical consideration for the success of such merger activity.

D. Bank Mergers and Their Antitrust Implications

In 1914, Congress enacted the Clayton Act\textsuperscript{452} as a means of supplementing the Sherman Act.\textsuperscript{453} Section 7 of the Clayton Act as amended in 1950 by the Celler-Kefauver Act\textsuperscript{454} prohibits the acquisition of stock or assets of any corporation “subject to the jurisdiction of the Federal Trade Commission.”\textsuperscript{455} Because of this language, it initially appeared that bank mergers were exempt from coverage under the Act since banks were not subject to the jurisdiction of the Federal Trade Commission. Subsequently, Congress passed the 1960 Bank Merger Act\textsuperscript{456} in order to maintain competition within the banking industry. Written approval from three federal agencies was needed in order to approve any bank merger.\textsuperscript{457} However, the finality of the approval by these agencies soon became uncertain. In refusing to accept the contention that the Comptroller’s approval under the Act immunized bank mergers from scrutiny under the Clayton Act, the Supreme Court in \textit{United States v. Philadelphia National Bank}\textsuperscript{458} held not only that section 7 of the Clayton Act was applicable to bank mergers, but that bank mergers were to be judged only by competitive factors.\textsuperscript{459} The 1960 Act was followed by the Bank Merger Act of 1966\textsuperscript{460} which developed a “convenience and needs standard” in order to determine whether or not a proposed merger would be anticompetitive and therefore disallowed.

Under the standard the merger might be approved if it served the convenience and needs of the community and if such benefit clearly outweighed the merger’s anticompetitive effects. Thus, Congress was willing to allow certain mergers even if they reduced competition.\textsuperscript{461}

The Court in \textit{United States v. First City National Bank}\textsuperscript{462} dealt with the interplay between the 1966 Act and Section 7 of the Clayton Act. Speaking through Justice Douglas, the Court stated that: “[t]here is no indication that an action challenging a merger on the ground of its anticompetitive effects is

\begin{footnotesize}
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\item \textsuperscript{456} Act of May 13, 1960, Pub. L. No. 86-463, 74 Stat. 129.
\item \textsuperscript{457} Written approval was needed from (1) the Comptroller of the Currency if the resulting bank was to be a national bank; (2) the Board of Governors of the Federal Reserve System if the resulting bank was to be a State member bank (except a District bank); and (3) the Federal Deposit Insurance Corporation if the resulting bank was to be a nonmember insured bank (except a District bank). \textit{Id}. These same provisions remain in the 1966 Act.
\item \textsuperscript{458} 374 U.S. 321 (1963).
\item \textsuperscript{459} For an excellent discussion in this area, see Note, Antitrust and Bank Mergers: \textit{United States v. Phillipsburg National Bank and Trust Co.}, 25 Sw. L.J. 317 (1971).
\item \textsuperscript{461} Note, Antitrust and Bank Mergers: \textit{United States v. Phillipsburg National Bank and Trust Co.}, supra note 459, at 321.
\item \textsuperscript{462} 386 U.S. 361 (1967).
\end{itemize}
\end{footnotesize}
bottomed on the Merger Act rather than on the antitrust laws.466 Accordingly, 
it is the court’s judgement, not the Comptroller’s that finally determines whether 
the merger is legal.464

The Court after, looking at the legislative history of the 1966 Act, did state 
that while the principle of the antitrust laws—that substantially anticompetitive 
mergers are prohibited—applies to banks, an exception is permitted “where it 
is clearly shown that a given merger is so beneficial to the convenience and needs 
of the community to be served . . . that it would be in the public interest to 
permit it.”465 Thus, the convenience and needs standard provides a defense to 
an antitrust attack on a bank merger. The Court in United States v. Third Na-
tional Bank stated that:

The task of the district courts was to inquire de novo into the validity of 
a bank merger approved by the relevant bank regulatory agency to deter-
mine, first, whether the merger offended the antitrust laws and, second, if 
it did, whether the banks had established that the merger was nonetheless 
justified by the “convenience and needs of the community to be served.”466

The Court narrowed the “convenience and needs” defense when it held 
that “before a merger injurious to the public interest is approved, a showing 
should be made that the gain expected from the merger cannot reasonably be 
expected through other means.”467

It is obvious from the above analysis that if the advent of the Less-Check 
Society does bring about a change in the banking structure by forcing the smaller 
banks to merge, such mergers must meet the requirements handed down by the 
Supreme Court. Whether a merger will be justified by the “convenience and needs” of the community to be served and whether it is the only viable alternative 
for the survival of the smaller banks is one more question that must be answered 
before the system can reach its maximum effectiveness.

The bank merger problem is, however, only one of the antitrust questions 
that is anticipated in the EFTS. More fundamental and more varied antitrust 
problems such as unlawful combinations, concerted refusals to deal and tying 
arrangements among others may be associated with the EFTS.

E. Other Antitrust Problems

1. Monopolization

While the development of credit card plans witnessed the emergence of a 
group of highly competitive bank card associations, it is not certain whether or 
not the implementation of an EFTS will be accompanied by a comparable 
number of competing multibank associations. It appears more plausible that

463 Id. at 364.
464 Id. at 369.
467 390 U.S. 171, 190 (1968).
eventually all local or regional systems, such as the SCOPE project, will merge into an integrated national association. Considerations of uniformity, economics, and pragmatism would dictate this development as a means of insuring that the EFTS will enable the banking industry to realize profits from the new services which computerization will make possible. However, there will probably still be competition among banks and nonbanking entities for the more profitable segments of the system. These factors may very well necessitate that such a system be integrated into an "amalgam of financial and quasi-financial" organizations. In view of this possibility, banks must be wary of both the legal and regulatory impediments imposed by the various antitrust statutes.

Of course, some commentators eventually envision an ideal EFTS in which bank "money cards" will become universally acceptable, replacing oil, travel and entertainment, and department store cards. Not only do they hope that public demand will mount in favor of a universal credit card, but they also foresee new technological advances which will increase the versatility of the credit card. In addition, banks will be able to provide a number of significant services unrelated to the development and extension of credit card uses. One of these, the preauthorized payment plan, provides an opportunity for banks to suppress competition. Under such a plan, if extended to include the payment of all bills by banks, account holders would authorize merchants to forward all bills to their respective banks, or would forward the bills themselves. Consequently, the banks, in paying all bills, would extend credit whenever necessary up to a certain maximum credit limit. In effect, banks would be substituting their own credit for that of retail stores and other competitors who presently sell on installment or revolving charge plans, with a resulting loss of any interest income they might otherwise have gained. This possibility would be even more acute in an EFTS context. There, all payments made by a customer would have to be cleared and processed instantaneously through the bank association's computerized clearinghouse. If the customer's account was overdrawn or if he indicated that he wished payment to be made on credit, the clearinghouse computer would immediately connect itself with the account holder's bank, which would pay the bill and provide a line of credit to the customer. While other credit card institutions would obtain the benefit of immediate payment due to the elimination of float,
this benefit would quite possibly be outweighed by the loss of interest income to those institutions would have obtained by financing their own credit. A persuasive argument could be made that the effect of this substitution of credit for that of traditional credit lending institutions would constitute a violation of section 1 or section 2 of the Sherman Antitrust Act.

Section 2 of the Sherman Act proscribes any act of monopolization, or attempt to monopolize, or combination or conspiracy to monopolize any part of the trade or commerce among the states. To establish the violation of actual monopolization, two essential elements must be proven. A recent statement of these elements can be found in United States v. Grinnell Corp.

The offense of monopoly under § 2 of the Sherman Act has two elements: (1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident.

“Monopoly power” has been defined to mean “the power to control prices or exclude competition” in the relevant market, and, when coupled with some act in furtherance of the monopoly, courts have been inclined to find an offense of monopolization. On the other hand, certain section 2 violations, viz., attempt or conspiracy to monopolize, have been premised upon activity that falls short of actual and successful possession of monopoly power. A specific intent to monopolize becomes the essential element in proving these violations. In Lorain Journal Co. v. United States, the Supreme Court stated the rationale underlying these principles:

To establish this violation of § 2 as charged, it was not necessary to show that success rewarded appellants’ attempt to monopolize. . . . “[W]hen that intent [to monopolize] and the consequent dangerous probability exist, this statute [the Sherman Act], like many others and like the common law in some cases, directs itself against that dangerous probability as well as against the completed result.”

In defining the relevant market, two questions must be answered before the requisite monopoly power can be established. First, the geographic area of effective competition in which the product or service is sold must be ascerc-
Second, the relevant product market, or that area of goods or services in which products are actually competitive with one another, must be determined. In this determination, the availability of a substitute product will invariably be an important factor to be considered. Once the relevant product and geographic markets have been delineated, the courts then would have to decide whether or not the requisite degree of monopoly power was present. Monopoly power has been inferred from evidence of the actual use of power over prices or over entry of competitors, the relative size or percentage of market supply controlled, and the presence of anticompetitive business policies, conduct, and performance. In short, what section 2 prohibits is the effort to obtain or maintain dominance in the relevant market, and not the mere status of monopoly.

Quite arguably, the power that banks would possess in a local, regional, or national EFTS or within a preauthorized payments context would give them an opportunity to gain effective control over credit, coupled with a power to exclude nonbanking competition from the credit market. That such power had been lawfully acquired would make no difference. Since actual dominance of the relevant market need not exist as a precondition to finding a section 2 violation, banks occupying a less than dominant status must make certain that as the outgrowth of the EFTS expands their control over the credit market, they do not engage in concerted acts that could be interpreted as conspiracies, combinations, or attempts to monopolize, especially since the possibility exists that the banks thus combined could in fact dominate the market or exclude competition.

In deciding whether a potential legal problem of monopolization would exist in a Less-Check Society, the policy underlying the Uniform Consumer Credit Code should be noted. It has been said that:

A basic underlying assumption and policy embodied in the UCCC is that the supplying of consumer credit needs in society today can best be provided by a system of freely competitive institutions. Just as the consumer is best served by free and open competition . . . so too the UCCC proceeds on the policy assumption that the marketplace should determine by whom and how the consumer's needs are supplied. The premise of the UCCC is that the best protection for the consumer and the best interests of those engaged in supplying consumer credit are served not by arbitrary legislative rules,
not by regulations issued by some supervisory agency, but by competition in
the marketplace.487

Since consumer credit needs should be provided by competitive institutions,
the question that must be answered is whether a Less-Check Society would
remove credit from the competitive market and give banks or a national multi-
bank association monopoly power in the consumer credit market. If so, a charge
of monopolization under section 2 would probably be sustained. The only solu-
tion would be to keep the consumer credit market open by permitting freedom of
entry and access to the EFTS,488 thereby rebutting any suggestion of "willful
acquisition or maintenance" of monopoly power in the consumer credit area.489
However, it will be seen that even within a system containing minimum open
market standards, other antitrust implications of the Less-Check Society, such
as concerted refusals to deal and tying agreements, offer potential problems to
be dealt with.

2. Concerted Refusals to Deal

Section 1 of the Sherman Act provides that:

Every contract, combination in the form of trust or otherwise, or
conspiracy, in restraint of trade or commerce among the several States, or
with foreign nations, is declared to be illegal . . . .490

An integrated national association of banks would clearly be a "combina-
tion" within the meaning of the Sherman Act.491 As such, bank refusal to allow
competing credit card institutions to utilize the clearinghouse facilities available
in an EFTS might amount to a concerted refusal to deal,492 which is illegal per
se under section 1.493 While it has been suggested that nonbanking entities

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487 Moo, Legislative Control of Consumer Credit Transactions, 33 LAW & CONTEMP. PROB. 656, 664 (1968).
488 See Note, Alternatives to the Present Check-Collection System, supra note 469, at 588; see also note 497 infra.
492 Nadler, Bank Credit Cards in the 1970s, supra note 472, at 46. In Klor's v. Broadway-Hale Stores, 359 U.S. 207, 212 (1959), the Supreme Court said that:
Group boycotts, or concerted refusals by traders to deal with other traders, have
long been held to be in the forbidden category. They have not been saved by allega-
tions that they were reasonable in the specific circumstances, nor by a failure to show
that they "fixed or regulated prices, parcelled out or limited production, or brought
about a deterioration in quality."
493 The classic statement of the per se rule is found in Northern Pac. R. Co. v. United States, 356 U.S. 1, 5 (1958):
[T]here are certain agreements or practices which because of their pernicious
effect on competition and lack of any redeeming virtue are conclusively presumed to
might themselves own and operate their own computerized payments mechanism, the present legal environment would not seem to justify that conclusion.

It seems that the only possible operational premise for a workable transfer of funds network, capable, as in the hypothesized DFT [EFTS] system, of instantaneous debit and credit transactions, is the maintenance of demand deposit accounts. Nonbanking entities are forbidden to exercise this function. Yet, while prevented by present law from assuming the role of depositories of funds, it is possible that the present legal environment would not be an obstacle to their providing to banks the processing and communications services envisioned as the core of a DFT [EFTS] center's activities.

While it is not presumed that the money card will be the only payments mechanism in a Less-Check Society, nonbanking entities will find themselves in need of the facilities utilized by the bank association unless the laws are changed. Maintaining their operations as they do now would be a much more time-consuming alternative. As a result, they may be unwillingly forced into use of the money card in return for bank cooperation in making available processing and communication services. If so, section 1 of the Sherman Act might preclude banks from prohibiting access to the EFTS to nonbanking entities or from conditioning access upon an agreement by them to relinquish the right to finance any credit extended to their customers and from collecting the interest therefrom. The anticompetitive effect of such an agreement, which could be attacked either as a concerted refusal to deal or a tying agreement, would lie in the bank or bank association's ability to coerce the nonbanking entities to follow a prescribed course of action through their control over demand deposit accounts. Within the structure of the banking industry itself, it would also be necessary that there be a guarantee of free entry for all banks into the association operating the EFTS. Without such provision, competition among banks would be rendered impossible since the enormous cost of implementing and administering an EFTS would make the possibility of maintaining a competing system prohibitive for individual or small groups of banks.

Of course, nonbanking entities could attempt to override the effects of the EFTS by making certain contractual agreements with their customers restricting the right to bypass their credit extension facilities. Indeed, the bank association would have to make its credit plan at least as accessible and desirable as those

be unreasonable and therefore illegal without elaborate inquiry as to the precise harm they have caused or the business excuse for their use. This principle of per se unreasonableness not only makes the type of restraints that are prescribed by the Sherman Act more certain to the benefit of everyone concerned, but it also avoids the necessity for an incredibly complicated and prolonged economic investigation.

494 Address by John J. Clarke, supra note 53.
495 Id.
496 See text accompanying notes 510-25 infra.
497 In Associated Press v. United States, 326 U.S. 1 (1945), a section 1 violation was found when a by-law required nonmembers seeking membership in the Association to pay enormous admission fees. The Court indicated that the arrangement was designed to limit competition and, as such, could not be immunized by adopting a membership device to accomplish that purpose. This rationale would seem to be applicable to a bank association context. See Note, Alternatives to the Present Check-Collection System, supra note 469, at 588.
498 Note, Alternatives to the Present Check-Collection System, supra note 469, at 588.
of its nonbanking competitors; otherwise, account holders would not consider utilizing the association's services. In the present check collection system, or in a Less-Check Society, nonbanking entities might have to require payment by check in order to prevent wide-scale bank financing of customer accounts. This would be inadvisable. Nonbanking entities should seek a program in which they would obtain the benefits of both instant money and interest income from credit financing. In such a program, a credit transaction would consist of a procedure slightly different from a normal debit transfer. In lieu of debiting the customer's account at the time of the purchase and crediting the merchant's account, the computer would verify the customer's revolving credit limit and authorize the sale on the credit of the nonbanking entity.\textsuperscript{499} At a later date the customer would instruct the bank to pay the bill to the nonbanking credit card issuer.\textsuperscript{500} As a corollary, as consumers move toward having one cash-credit account with one financial institution, most credit investigations will probably be conducted by banks and the information stored in central information files. An individual's credit rating will follow him wherever he goes. Denials of credit might be viewed under such circumstances as concerted refusals to deal\textsuperscript{501} or may be enjoined as blacklisting under the Clayton Antitrust Act.\textsuperscript{502}

Dr. Paul Nadler, Professor of Finance at New York University, has discussed a similar problem of entry into the relevant market with respect to savings and loan institutions. He wondered whether a savings and loan association would be given sufficient access to the EFTS to allow funds from an individual's demand deposits to be transferred into a savings and loan account. The solution might require utility treatment for the EFTS. Dr. Nadler has stated that:

While no one can predict all the implications of this possibility, one can assume that savings banks, savings and loan, and other competitors of commercial banks will have to use the checkless society in the same way that nonfinancial institutions use it.

Otherwise there is a likelihood that the automated transfer system will be called a public utility and that the banks will be forced to act as common carriers do in the transportation business—having to accept business from any and all comers.

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One can conclude, then, that either the banks will offer the checkless society to their competitors willingly, or they will be forced to do so by governmental intervention. No matter which approach is taken, one can assume that banks and their deposit-type competitors will become even more alike in form and function than is now the case. The step from this blending of service to outright amalgamation into one financial form does not seem too great from this vantage point.\textsuperscript{503}

\textsuperscript{499} \textit{Will Associations Fit into the Checkless Society?}, \textit{Savings and Loan News}, May 1967, at 28, 30.

\textsuperscript{500} \textit{Id.}

\textsuperscript{501} Karst, "\textit{The Files}": Legal Controls Over the Accuracy and Accessibility of Stored Personal Data, \textit{51 Law & Contemp. Prov.} 342, 376 (1966).

\textsuperscript{502} \textit{Id.} at 376 n.157.

\textsuperscript{503} \textit{Will Associations Fit into the Checkless Society?}, supra note 499, at 33.
In order, then, to eliminate the risk of violating section 1 of the Sherman Act, the bank association cannot condition entry into its program for small banks, nor can it condition entry for savings and loan or nonbanking institutions in any manner that might tend to reduce competition significantly.

As an analogy, the Supreme Court in the past has used the Sherman Act to force industries maintaining pooling arrangements to modify the terms of their agreements to permit competitors to have access to their pooled facilities. For instance, in Gamco, Inc. v. Providence Fruit & Produce Building, the court stated that:

Reasonable criteria of selection . . . would not violate the standards of the Sherman Antitrust Act. But the latent monopolist must justify the exclusion of a competitor from a market which he controls. Where, as here, a business group understandably susceptible to the temptations of exploiting its natural advantage against competitors prohibits one previously acceptable from hawking his wares beside them any longer at the very moment of his affiliation with a potentially lower priced outsider, they may be called upon for a necessary explanation. The conjunction of power and motive to exclude with an exclusion not immediately and patently justified by reasonable business requirements establishes a prima facie case of the purpose to monopolize.

Similarly, the Supreme Court has held that the antitrust laws are applicable to a national securities exchange, a regulated industry, despite claims that the presence of another statutory scheme, the Securities Exchange Act of 1934, insulated such activity from antitrust liability. Beyond this narrow holding, the Supreme Court, in Silver v. New York Stock Exchange, found that section 1 of the Sherman Act was violated when the Exchange directed two of its members to discontinue private wire connections with two nonmembers who were over-the-counter security broker-dealers. It was held that such action constituted a concerted refusal to deal, a per se violation, since it denied the petitioners "a valuable business service which they needed in order to compete effectively as broker-dealers in the over-the-counter securities market." The Court held that the private wire connection, which provided instantaneously available market in-

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505 194 F.2d 484, 487-88 (1st Cir. 1952). This reasoning has been suggested as applying to dominant newspapers, that ought to be forced to permit smaller competing papers to have access to their printing plants. Barber, Newspaper Monopoly in New Orleans: The Lessons for Antitrust Policy, 24 LA. L. Rev. 503 (1964). It appears to lend itself to an equally persuasive argument for application to an association of banks.


507 Commentators have failed to agree whether the Court precisely held that the conduct on the part of the Exchange constituted a per se violation or whether it applied a rule of reason with respect to the regulated industry. It is arguable that the Court intended that the alleged violation standing alone would have amounted to a per se illegal boycott, but that, although not exempted by the regulatory scheme from the antitrust statutes, it should under the circumstances of the case balance the reasonableness of the Exchange's conduct with the objectives of the securities legislation. Perhaps, a more accurate view is that the Court examined the reasonableness of the restraint to determine whether there was a concerted refusal to deal, which when found to be present was labeled as illegal per se. For a discussion of this decision, see Note, Stock Exchange Regulation of Nonmember Brokers, 71 YALE L.J. 748 (1962).

formation, was an essential part of the process of constant communication. Without membership in the network of simultaneous communication, the over-the-counter dealers would have experienced a significant loss in volume of trading due to the accessibility members had to the network. A distinct parallel could be drawn with respect to an EFTS unless the bank association permits accessibility to the system by nonmember banks and nonbanking entities having credit extension programs. It would not matter that any legitimate business purpose might outweigh in social importance the anticompetitive effects the system would have; any concerted refusal to deal by the association would tend towards monopoly.

3. Tying Agreements

The tie-in sale utilizes “the market power of one product to increase the market power of another product.” A tying agreement has been defined as:

An agreement by a party to sell one product but only on the condition that the buyer also purchases a different (or tied) product, or at least agrees that he will not purchase that product from any other supplier.

Tying agreements have been deemed illegal per se under both the Sherman and Clayton Antitrust Acts because they “serve hardly any purpose beyond the suppression of competition.” While it is certain that an improved payments mechanism will enable banks to provide many new services to their account holders, there will no doubt be resistance from those organizations whose functions may be usurped by the banks who control the vast system of computerized financial information. The expansion of bank services will be accompanied by challenges that:

The volume of business affected by these contracts cannot be said to be insignificant or insubstantial and the tendency of the arrangement to accomplishment of monopoly seems obvious. Under the law, agreements are forbidden which “tend to create a monopoly,” and it is immaterial that the tendency is a creeping one rather than one that proceeds at full gallop; nor does the law await arrival at the goal before condemning the direction of the movement.

509 Id. at 348.
511 Northern Pac. R. Co. v. United States, 356 U.S. 1, 5-6 (1958).
513 See Clayton Antitrust Act § 3, 15 U.S.C. § 14 (1970). With regard to an EFTS, it would appear that the Sherman Act would be applicable rather than the Clayton Act, which applies only to contractual restraints involving sales or leases of commodities and not to services. In United States v. Investors Diversified Services, 102 F. Supp. 645 (D.C. Minn. 1951), it was held under the doctrine of ejusdem generis that money (in this case a tying product) was not a commodity, good, ware, merchandise, machinery, or supply within the meaning of section 3 of the Clayton Act.
Banks must be wary of litigation directed against new programs until courts become receptive, with respect to both market definition and the tying problem, to expanded bank services. Even within an open market, banks could be subjected to arguments that their control over demand deposits and/or computerized clearinghouses enables them to engage in illegal tying arrangements. Many questions remain unanswered. For example, could the bank association successfully condition the extension of credit (the tying product) to small, nonmember banks or nonbanking entities with participation in their credit card plan or in the EFTS? Could the association condition entry into the system or use of its facilities upon an agreement to relinquish competing credit plans? Could banks with their ability to monopolize the credit industry through the use of an EFTS or preauthorized payment plan tie in any of the new services made available by the use of computer processing equipment? Whether any of the above questions could be answered in the affirmative will ultimately depend upon the ability of the banks to couple new services and improved technology with reasonable procedures enhancing continued competition.

The Supreme Court has explicitly included the control over credit within the purview of the antitrust statutes. In *Fortner Enterprises v. U.S. Steel*, the Court stated:

> [W]e can find no basis for treating credit differently in principle from other goods and services. Although money is a fungible commodity . . . credit markets, like other markets, are often imperfect, and it is easy to see how a big company with vast sums of money in its treasury could wield very substantial power in a credit market. Where this is true, tie-ins involving credit can cause all the evils that the antitrust laws have always been intended to prevent, crippling other companies that are equally, if not more, efficient in producing their own products. Therefore, the same inquiries must be made as to economic power over the tying product and substantial effect in the tied market, but where these factors are present no special treatment can be justified solely because credit, rather than some other product, is the source of the tying leverage used to restrain competition.\(^{516}\)

As a result, it is evident that banks cannot legally extend credit to small, nonmember banks or nonbanking organizations on the condition that they participate in a present credit card plan or a future EFTS. Such a condition would impose an involuntary burden upon nonmember banks and nonbanking entities attempting to maintain a competitive system, since banks would have sufficient economic power in the relevant credit market to restrain competition in the market for the tied product.\(^{517}\) Even if it was not possible to demonstrate that banks maintain the requisite market dominance, sufficient economic power could be inferred from the tying product's desirability to consumers or from the uniqueness of its attributes.\(^{518}\)

Similarly, banks by contract could effectuate an illegal tying agreement if they directly or indirectly coerced consumers into utilizing new services made

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possible by technological innovations. One such service, the one-check payroll plan, has been unsuccessfully attacked as constituting an illegal boycott and an illegal tying agreement in violation of both section 1 and section 2 of the Sherman Act. In *Bank of Utah v. Commercial Security Bank*, a dispute arose between two banks over the implementation of a one-check payroll plan. Under the plan, teachers complied with their school boards' request to retain checking accounts in the bank handling the payroll. The petitioner claimed that, as a result, its growth rate had decreased as well as its ability to “cross-sell” other bank services to lost checking account customers and to attract new teacher accounts. However, the Supreme Court adopted the trial court's conclusion that:

“The setting up of special accounts, when coupled with two free checks to withdraw the funds and the provision for automatic transfer of the funds to other banks, is a reasonable procedure...” and not an unreasonable restraint of trade.

In addition, the Supreme Court found no evidence of any intent to destroy competition or to build monopoly power in violation of section 2 of the Sherman Act. While the Court was satisfied that the employees were not sufficiently restrained by having to take some affirmative action on their own to transfer their funds to some other bank, it went even further in citing to the trial court's approval of the plan, stressing the plan's competitive nature:

“I see no reason why banks should not expand upon the use of modern computers and perform payroll accounting services for customer employers. There is nothing inherently wrong or questionable for banks to render such service. Plaintiff banks can, and have, offered the same type of service. They and other banks are completely free to compete with defendant in this field. Progress and the utilization of new instrumentalities and procedures are not prohibited by the Sherman Act...”

The progressive attitude expressed by the court is persuasive authority that new and increased bank services will find favorable judicial reaction in an EFTS. However, one must be aware that in *Bank of Utah* the service provided was able to actually generate a competitive impetus to others. Other services might not have such potential. Banks must proceed cautiously into new ventures so as not to tip the competitive balance too heavily in their favor. The mere fact

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519 The court in *Bank of Utah v. Commercial Security Bank*, 369 F.2d 19, 22 (10th Cir. 1966), explained the operation of such a plan as follows: Briefly the “no-check” payroll plan operates as follows: the bank computes the payroll from basic earnings and deductions data provided it by the board. The board issues to the bank one check in the amount of the total net payroll due. The bank in turn credits the net wages due each employee to special checking accounts set up with the bank in the name of each employee. Finally, the bank sends the employee a monthly statement showing gross pay, deductions, and the net pay deposited to his special account. The bank also prepares various other documents, such as social security and withholding tax forms.

520 369 F.2d 19 (10th Cir. 1966), *cert. denied*, 386 U.S. 1018 (1967).

521 Id. at 23.

522 Id. at 26.

523 Id. at 23 n.5.
that the power to monopolize was "thrust upon" banks by reason of the superior skills, better products, natural advantages and efficiency made possible by the use of computerized financial information will not serve as a defense to a charge of actual monopolization if the acquisition or retention of monopoly power is in part caused by other business actions having an exclusionary effect. Tying agreements and concerted refusals to deal would have such exclusionary effect.

F. Admission of Computer Print-Outs as Business Records

1. In General

The increasing use of computers in the electronic payment system context is altering the nature and the form of evidence that lawyers have become accustomed to encounter. According to the American Federation of Information Processing Societies, in 1950 there were approximately 10 to 15 active computers in the United States. By 1967, there were 35,200, and it is estimated that by 1975 the number will have risen to 85,000. As a result, record-keeping in its traditional manner is being replaced by a new concept in which many of the traditional written records created at intermediate stages no longer are necessary. The incredible speed of the computer maximizes the availability of needed information by minimizing and avoiding unnecessary duplication of records. Several other characteristics distinguish computer record-keeping. Whereas traditional record-keeping systems are usually cumulative in nature, computerized systems, to reduce costs, correlate information as it is fed into the computer, destroying old records in the process. Also, the form and content of computer records are substantially different. In pure physical form, the computerized record consists of patterned punch cards and magnetic or paper tapes. As such, it is unreadable as contained in the computer's storage device. Since the record must be translated in the form of a computer print-out, it is subject to the objection that it is a document created especially for trial and therefore not within the business entries exception to the hearsay rule.

We are concerned primarily with the impact of computers upon the law in the area of their use by banking and other industries affecting the payments system. The mature automation demanded in a Less-Check Society makes it imperative that the state of the law concerning the admissibility of computer print-outs as an exception to the hearsay rule be discussed. As new systems are implemented and many of the indicia of sales and bank accounts are eliminated, disputes among cardholders, merchants, and issuers will inevitably lead to controversy over what records, if any, comprise the best evidence and fall within the scope of admissible business records. Since our society is now deeply committed to computerized record-keeping, it will be the duty of the lawyer to acquaint

himself sufficiently with computer fundamentals so that he can effectively assure the admission of computer records into evidence.

The most widely used general purpose computer is the digital computer. It is separated into five basic components: input, memory, control, arithmetic, and output. When information is collected, it is placed into an input device which translates the data into machine readable language, using a system of signals to convert the information onto punched cards, magnetic or paper tapes, electric typewriters, printers or voice response units. Once translated and put in the proper form, the input device feeds the information into the computer memory device, which essentially acts as a storage center until information is needed. Storage is accomplished by use of internal devices called magnetic cores and by external devices such as magnetic tapes, drums, disks or cards, paper tapes, electronic circuits, or punched cards. The core devices are high speed and fast access devices that contain data that must be readily available at any time. The external devices contain backup and other data that are removed from the computer and filed, making it possible to store an almost unlimited amount of information with less speed and slower access. When information is needed, it can be collected by means of a program, which, when placed into the computer, activates the control unit. The control unit responds to the instructions in the program by selecting the necessary information from the memory device and sending signals to the other elements of the computer, commanding them what they are to do when the information arrives. The control unit first sends data from the storage device to the arithmetic unit, which, through a system of components and circuits, breaks down, combines and rearranges information to achieve the requested result. The answer is then delivered back to the memory device and forward to the output device, which either delivers the answer in machine-readable form or translates it into English. Both results are known as print-outs.

In examining the questions regarding admissibility, it must be noted that since no written records are retained during the process by which the computer arrives at its final conclusions, evidence of the proof of actions taken by the computer is merely circumstantial. As a result, attention must be focused not only upon the admissibility of computer records as evidence and the weight to be accorded such evidence, but also upon matters of proof, viz., the laying of a proper foundation to prove that the information is trustworthy and that the performance of the computer is reliable.

In ascertaining the impact, if any, computer records have on the rules of evidence, all possible problems of proof will not be considered. A rather complex variety of computer-derived evidentiary materials may be involved in litigation. The emphasis here will be on records created by computers, known as

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528 Freed, Computer Print-Outs as Evidence, in 16 AM. JUR. PROOF OF FACTS 273, 280 (1965).
529 Id. at 279-93.
530 Professor Freed lists a representative number of these materials:

1. Original documents in traditional form, such as purchase orders, invoices, and credit memoranda, which provide basic information for input to a computer system.

2. Media by which information is inserted into or taken from computers, such as
print-outs. Specifically, the problems encountered by the business records exception to the hearsay rule, as applied by the common law and by statute, and the applicability of the best evidence rule to computer records will be analyzed. In addition, there are problems concerning discovery of computer records, including the issuance of subpoenas duces tecum, and the use of expert witnesses to make statistical analysis of large masses of information; these particular problems relate to laying the proper foundation to assure the accuracy and reliability of the computer records.

2. Business Records Exception to the Hearsay Rule

Hearsay evidence is testimony in court or written evidence, of a statement made out of court, offered to establish the truth of the matter asserted. A “statement” in this context “means not only an oral or written expression but also nonverbal conduct of a person intended by him as a substitute for words in expressing the matter stated.” As such, it is patently clear that a print-out, which is a written statement, is hearsay, and to be admissible it must fall within one of the exceptions to the hearsay rule.

a. The Common Law Shop-Book Rule

Historically, an exception arose whereby regular entries were admissible if (1) made routinely during the course of business, (2) entered contemporaneously or within a reasonable time of the transaction recorded, (3) by a person unavailable as a witness, (4) who had personal knowledge of the event, and (5) no motive to misrepresent or misstate. This common law exception became known as the “shop-book rule.” This exception is justified because of the presence of two elements: unusual reliability and necessity. The reliability stems from a high degree of accuracy attributable to business records. While it is true that computer accuracy has not been perfected, it is a key factor to be considered both in assessing the admissibility of computer print-outs in evidence and the weight to be given that evidence. Both machine and human error predictably will occur.

Despite the common high regard for personal responsibility and the exercise of judgment, human participation in computer operation is a sub-

3. Records created by computers, perhaps in the form of punched cards, magnetic tapes, or print-outs.
4. Computer programs, both verbal and in machine language.
5. Logs of computer operations.

Id. at 295.

532 Uniform Rule of Evidence 62(1).
533 E. Fisch, New York Evidence § 831 (1965); for further discussion see C. McCormick, supra note 531, at § 283.
534 For an early statement of the rule, see Vosburgh v. Thayer, 12 Johns. 461 (N.Y. Sup. Ct. 1815).
535 C. McCormick, supra note 531, at § 281.
stantially greater source of inaccuracies and fallibility than the machine mechanism itself, and precautionary steps are required.\textsuperscript{538}

Simply to contend that computer print-outs are inadmissible because a degree of error is present would be to place a discriminatory restriction upon computer records, which traditionally has not been placed upon man-made records. In a landmark decision, *Transport Indemnity Co. v. Seib*,\textsuperscript{537} the court indicated that the consideration of computer accuracy and human error should go only to the weight and credibility of the evidence and not to its admissibility.\textsuperscript{538} A complete foundation was laid in this case. Witnesses testified that the methods, practices, programming and systems utilized were part of "a well-established business procedure not only in the trade, but specifically in the very company..."\textsuperscript{539} In this determination that computer reliability is a function of the weight to be accorded the evidence and not its admissibility, the court interpreted the Nebraska Business Records Act,\textsuperscript{540} which contained no express provision regarding this point. Some states,\textsuperscript{541} however, and the federal government have included a provision specifically designating that: "All other circumstances of the making of such writing or record, including lack of personal knowledge by the entrant or maker, may be shown to affect its weight, but such circumstances should not affect its admissibility."\textsuperscript{542}

It appears, then, that those prerequisites involved in the formulation of the shop-book rule\textsuperscript{543} that tend to show probable reliability need not be demonstrated in order to admit computer print-outs within the business records exception to the hearsay rule. Nevertheless, all factors which would bear on the reliability of the records are still necessary to assure that the evidence will be accorded its proper weight. Therefore, the proponent has to present to the court testimony establishing not only compliance with the common law or statutory business records exception to get that evidence admitted, but also has the burden of establishing a proper foundation for the accuracy and reliability of the print-outs. In this connection, Professor Roy Freed has said:

> The following facts tend to establish the accuracy of the computer, the precautions taken to prevent errors, and the use of the computer in the usual course of business and as an integral part of the record-keeping procedures of the business...
> - Identity of record custodian
> - Familiarity of record custodian with machine accounting procedures
> - Description of machine accounting procedures
> - Precautions taken to prevent errors

\textsuperscript{537} 178 Neb. 253, 132 N.W.2d 871 (1965).
\textsuperscript{538} Id. at ——, 132 N.W.2d at 875.
\textsuperscript{539} United States v. Olivo, 278 F.2d 415, 417 (3d Cir. 1960).
\textsuperscript{540} Neb. Rev. Stat. § 25-12,109 (1964). Nebraska's act is based upon the Uniform Business Records as Evidence Act.
\textsuperscript{541} Alabama, Arkansas, Connecticut, Georgia, Illinois, Maryland, Michigan, New Mexico, New York, Rhode Island, Texas, and Wisconsin.
\textsuperscript{543} See text accompanying note 533 supra.
Such testimony would be most effective if given by a supervisor or computer expert, with an emphasis upon error-prevention and safety measures. However, the emphasis should not be so effective that it would raise an impression that the computer is error-prone.

Prior to the development of the shop-book exception, the common law required that all witnesses connected with an entry be produced before a business record would be admitted. The second element underlying the recognition of the business records exception, necessity, is based upon a realization that the purpose of the historical requirement is outweighed by the burden of a time-consuming and practical inconvenience to the numerous persons involved. As a result, all states that have considered the complex and specialized systems for keeping business records have found it a matter of necessity to eliminate this cumbersome aspect of the common law. They have done so either by adapting the common law to a more practical view towards computer print-outs or by interpreting and enacting statutes that eliminate the need to identify, locate and produce as witnesses the individuals who made the entries in the regular course of business.

b. Codifications of the Shop-Book Rule

The first attempts to codify the shop-book rule arose before use of computerized business records became prevalent. The eventual problem in those states will revolve around the question whether or not computer print-out records satisfy the requirements of the business record statutes, which were enacted in light of conventional forms of record-keeping. An alternative suggestion is that states may, in lieu of stretching statutory language beyond its original scope, treat the problems of computer records independently and find that the statutes are not applicable to computer print-outs. In doing so, courts could free themselves to use the more flexible standards provided by the common law.

In order to reduce the burden of producing or demonstrating the unavailability of every person who participated in the entry, a Model Act was proposed in 1927. Its avowed purpose was to reduce this burden by permitting records to be substantiated by anyone who knew they were made in the regular course of business. In 1928, New York became the first state to enact this statute as a consequence of its judicially expressed disfavor of the technical common law.

544 Freed, supra note 528, at 310.
547 For example, the Uniform Business Records as Evidence Act provides that a business record shall be competent evidence "if the custodian or other qualified witness testifies to its identity and the mode of its preparation . . . ." (emphasis added).
rules. In effect, it extended the shop-book rule to allow the admission of records made in the ordinary course of business that had been shown to be trustworthy and eliminated the requirement that all those who participated in the entry testify. This Act provided the impetus for the Commissioners on Uniform State Laws to propose the Uniform Business Records as Evidence Act in 1936. The Act reads as follows:

§1. Definition.—The term "business" shall include every kind of business, profession, occupation, calling or operation of institutions, whether carried on for profit or not.

§2. Business Records.—A record of an act, condition or event, shall, insofar as relevant, be competent evidence if the custodian or other qualified witness testifies to its identity and the mode of its preparation, and if it was made in the regular course of business, at or near the time of the act, condition or event, and if, in the opinion of the court, the sources of information, method and time of preparation were such as to justify its admission.

This Act went further than the Model Act in that (1) it included "conditions" within its scope; (2) it was more specific than the Model Act in eliminating the need to produce all available participants. Whereas the Model Act does this by inference from the absence of that requirement, the Uniform Act provides that the evidence will be admissible if it is attested by its custodian "or other qualified witness;" (3) the Uniform Act confers upon the court a clear discretion to admit the evidence if it believes that the "sources of information" would justify it. This provision could be relied upon to rebut the argument.

549 N.Y. Civ. Prac. Rule 4518 (McKinney 1963), replacing without substantive change N.Y. Civ. Prac. Act § 374(a), N.Y. Laws 1928, c. 538, § 374(a), provides:

Any writing or record, whether in the form of an entry in a book or otherwise, made as a memorandum or record of any act, transaction, occurrence or event, shall be admissible in evidence in proof of that act, transaction, occurrence or event, if the judge finds that it was made in the regular course of any business and that it was the regular course of such business to make it, at the time of the act, transaction, occurrence or event, or within a reasonable time thereafter. All other circumstances of the making of the memorandum or record, including lack of personal knowledge by the maker, may be proved to affect its weight, but they shall not affect its admissibility. The term business includes a business, profession, occupation and calling of every kind.

550 Id.

551 Twenty states have enacted statutes either identical to or substantially the same as the Uniform Business Records as Evidence Act: Arizona, Delaware, Florida, Hawaii, Idaho, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, North Dakota, Ohio, Oregon, Pennsylvania, South Dakota, Tennessee, Vermont, Washington, and Wyoming. Ten states have enacted statutes identical with or substantially the same as the Model Act: Alabama, Arkansas, Connecticut, Georgia, Illinois, Maryland, Michigan, New Mexico, New York, and Rhode Island. Three states combine aspects of both the Uniform Act and the Model Act: California, Iowa, and Wisconsin. Kansas and New Jersey have enacted the Uniform Rules of Evidence. Texas has enacted a statute based upon the Uniform Act with two significant differences. First, the "regular course of business" requirement specifically maintains the personal knowledge requirement for the entrant or one with a duty to transmit to the entrant. This factor goes to the admissibility and not to the weight of the evidence, as required by the Uniform Act. Second, the court's discretion is limited because the requirements for admissibility are narrowly defined. For further explanation of the Texas statute see Comment, The Admissibility of Computer Printouts Under the Business Records Exception in Texas, 12 S. Tex. L.J. 291 (1971). Fourteen states have retained the common law shop book rule: Alaska, Colorado, District of Columbia, Indiana, Kentucky, Louisiana, Maine, Massachusetts, Mississippi, North Carolina, Oklahoma, South Carolina, Utah, Virginia and West Virginia.

552 C. McCormick, supra note 531, at § 289.
that the computer print-outs are documents created especially for trial and therefore not within the statute's protection.

In those states that have adopted the Model Act, no case has been decided concerning the admissibility of computer print-outs into evidence. There appear to be two problems presented by the Model Act which do not exist under the Uniform Act. First, the Model Act clearly states that it is the "writing or record" sought to be introduced that must be made during the regular course of business, whereas the reference to "sources of information" in the Uniform Act is ambiguous enough to mean that if either the record, i.e., the print-out, or the sources of information, i.e., the input stored within the computer, is made in the regular course of business, the print-out would be admissible if all other conditions are met. Thus, the states that have enacted legislation based upon the Model Act may experience difficulty in admitting the print-outs since they are merely translations of the writing or record found in the computer's storage device. As such, they are documents normally prepared for trial and thus not in the regular course of business. However, this argument has not been accepted by states under the Uniform Act since it exalts form over substance. It is sufficient that the print-out is a compilation of existing records produced in the regular course of business.

With regard to the second problem, the Model Act omits any mention of who is to testify as to the identity and the mode of preparation of the evidence. Although enacted expressly with the intent to make it unnecessary for all participants to testify, it would be illogical for the courts in Model Act states to infer that all restrictions were removed. To do so would undermine the aspect of unusual reliability which is the foundation for the business records exception to the hearsay rule. Rather it is hoped that the courts in those states will insure the element of reliability by construing the statute to require either the custodian or some other qualified witness to testify, as is required by the Uniform Act.

The business records exception under the common law required the records to be produced by one who had personal knowledge of the facts recorded and whose job it was to know the facts in the regular course of business. As technology developed and the number of people involved in transactions increased, it became more difficult to prove who actually had, or whose duty it was to have, knowledge of the facts recorded. One purpose, then, of the adoption of both the Model Act and the Uniform Act was to remedy the practical inconvenience that had resulted by providing that all that is necessary is that the one who testifies establish that the evidence was made in the regular course of business by persons who had actual knowledge of the event recorded. The Model Act includes a provision specifically stating that lack of personal knowledge by the entrant or maker will affect the weight but not the admissibility of the evi-

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553 See note 551 supra.
554 Transport Indemnity Co. v. Seib, 178 Neb. 253, ——, 132 N.W.2d 871, 875 (1965). It could also be said that since the real record exists within the computer's storage area, any print-out is at best a copy of the real record, and thus inadmissible. See text accompanying notes 616-26 infra.
555 Note, Admissibility of Computer-Kept Business Records, supra note 545, at 1040.
At first, this might seem to indicate that personal knowledge by one whose job it is to know the facts is no longer necessary. It has been held, however, that this provision means only that the one who testifies, i.e., the entrant or maker, need not have personal knowledge of the facts. It is still required that testimony be furnished that someone in the regular course of business had the duty to know, and in fact did have personal knowledge of the facts. The Uniform Act contains no reference whatsoever to the element of personal knowledge.

Applying this standard, the courts have held that the sources of information should be based upon the personal knowledge of the witness testifying (entrant) or of the informant, someone who has a business duty to observe the facts and report to the entrant.

Upon close inspection, the discretion given the courts by the Uniform Act would seem to permit a broader admissibility than has previously been recognized. Records would be admissible even if made without personal knowledge of anyone in the regular course of business who had the duty to know, as long as other sources of information establish a reasonable guarantee of trustworthiness. If true, this further liberalization of the hearsay rule will have important ramifications upon the EFTS envisioned for the Less-Check Society.

A unique problem arises when a record is produced in a completely automated system. In such a case, information is received by a computer or some other monitoring device, which transmits it to another computer, where it is recorded on tape for storage or use. No one would have obtained personal knowledge of the record or even the sources of information. Computer printouts would appear to be inadmissible in those states which still require that

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557 See note 549 supra.
558 The cases indicate that in those states following the Model Act, business records will be inadmissible if the testimony shows that the record was made by persons who were neither engaged in the regular course of business nor had any duty to know the facts reported. Cox v. State of New York, 3 N.Y.2d 693, 171 N.Y.S.2d 818, 148 N.E.2d 879 (1958); Gereomei v. Fancy Fruit and Produce Corp., 249 App. Div. 221, 291, N.Y.S. 837 (1936); Beasley v. Huntley Estates, 25 Misc. 2d 43, 137 N.Y.S.2d 784 (1954); Johnson v. Lutz, 253 N.Y. 124, 170 N.E. 517 (1930); C. McCormick, supra note 531, at § 286. If the person who recorded is the entrant, the record is admissible if the person who supplied that record had the duty to do so in the regular course of business. Kardas v. State of New York, 44 Misc. 2d 243, 253 N.Y.S.2d 470 (1964); see also Comment, Computer Print-Outs of Business Records and Their Admissibility in New York, 31 ALBANY L. REV. 61 (1967).
559 Uniform Business Records as Evidence Act § 2.
560 Taylor v. Centennial Bowl, Inc., 65 Cal. 2d 114, 52 Cal. Rptr. 561, 416 P.2d 793 (1966). Furthermore, in Rassomanno v. Laclede Cab Company, 328 S.W.2d 677 (Mo. 1959), it was held that the regular record would be admissible even though the entrant was not employed in the regular course of business at the time of the act, condition or event recorded; nor did the entrant have personal knowledge of how or when the record was created. In addition, the court extended the Missouri statute to mean that the testimony of a witness as to the mode of preparation need not be based upon personal knowledge, as long as other sources of information are present to justify its admission.

In Fauceglia v. Harry, 409 Pa. 155, 185 A.2d 598 (1962), it was held that under the Uniform Act, the entrant is not required to have personal knowledge of the event recorded, as long as someone else in the organization has personally observed the event recorded.

In Fagen v. Newark, 78 N.J. Super. 294, 188 A.2d 427 (1963), the court held that where the entrant had no personal knowledge and where the informant was under no duty to anyone to make a truthful account of the facts in the regular course of business, the record will not be admissible as proof of those facts.
the entrant have personal knowledge of the record, as well as in those states that have limited this to proof that someone, not necessarily the entrant, had personal knowledge of the event in the regular course of business. However, those states that have adopted the Model Act or especially the Uniform Act, as well as those states that retain the more flexible common law, have an opportunity to utilize the broad discretion vested in them. Despite the fact that neither the entrant nor anyone else had any personal knowledge, the reliability of the completely automated system is even greater than one involving human participation. The absence of any specific reference to the necessity for personal knowledge could be used to an advantage in this exceptional situation, due to the high degree of trustworthiness present. However, these same courts would be wise to judicially interpret those statutes to maintain the personal knowledge requirement in all other instances not presenting such extraordinary reliability.

In 1936, the federal government followed the example of the Model Act and enacted the Federal Business Records as Evidence Act. This was followed in 1942 by the promulgation of the American Law Institute's Model Code of Evidence, Rule 514 of which is noteworthy in a number of respects.

First, it applies not only to acts and events but also to conditions. Second, it includes as a business, every kind of institution, and makes it clear that conduct for profit is not essential to a business. Third, it clearly provides that the person having knowledge of the act, event or condition, either must make the memorandum or must in the course of the business transmit the information for inclusion in the memorandum.

Apparently the drafters opposed the broad discretion vested in the courts under the earlier statutes, even though they had historically been interpreted to include the personal knowledge requirement. Perhaps this absence of any discretion which could be exercised to eliminate the personal knowledge requirement in a situation where it was clearly warranted, such as in an entirely automated system, accounts for the fact that no state has adopted this statute.

In 1953, the National Conference of Commissioners on Uniform State Laws

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564 Rule 514 reads:

A writing offered as a memorandum or record of an act, event or condition is admissible as tending to prove the occurrence of the act or event or the existence of the condition if the judge finds that it was made in the regular course of a business and that it was the regular course of that business for one with personal knowledge of such an act, event or condition to make such a memorandum or record or to transmit information thereof to be included in such a memorandum or record, and for the memorandum or record to be made at or about the time of the act, event or condition or within a reasonable time thereafter.

565 Model Code of Evidence Rule 514, Comment. This requirement has been applied to pre-dated statutes through judicial interpretation. See text accompanying notes 557-60 supra.
approved the Uniform Rules of Evidence.\footnote{566} Rule 63(13), pertaining to business records, was fashioned after the Uniform Business Records as Evidence Act. This particular rule departed from the Model Code Rule 514 requirement that the memorandum be made or have been transmitted by a person having knowledge of the act, condition or event in the regular course of business. In lieu thereof, it retained the broad discretionary powers vested in the courts to examine the sources of information, method and time of preparation in their determination of admissibility.

The most recent codification is the Proposed Federal Rules of Evidence for the United States Courts and Magistrates.\footnote{567} Proposed Rule 1001(1) includes within the definition of “writings” and “recordings” forms of “data compilations”.\footnote{568} Computer print-outs would easily qualify as data compilations and thus come within the rule.\footnote{569}

Proposed Rule 803(6) would, unfortunately, retain the personal knowledge requirement,\footnote{570} rendering inadmissible information transmitted from one computer to another. This dilemma could be resolved by tracing the chain of transmission to a human source with personal knowledge, but this solution might result in a loss of the desired form of the record. As an alternative argument, it could be said that all the computers used during the process constitute a single computer.\footnote{571} For example, in a dispute arising out of a single transaction in an EFTS, the source of information for the computer print-out would be the on-line terminal at the retail store. If the Proposed Federal Rule is construed narrowly, the print-out of the transaction would be inadmissible because no testifying witness (entrant) would have obtained personal knowledge; nor would the on-line terminal be able to qualify as an informant since it could not person-

\footnote{566} To date, only Kansas, New Jersey, the Virgin Islands and the Panama Canal Zone have adopted the Uniform Rules of Evidence. Rule 63(13) states that:

Writings offered as memoranda or records of acts, conditions or events to prove the facts stated therein, if the judge finds that they were made in the regular course of a business at or about the time of the act, condition or event recorded, and that the sources of information from which made and the method and circumstances of their preparation were such as to indicate their trustworthiness, are admissible as an exception to the hearsay rule.

\footnote{567} Proposed Federal Rules of Evidence 803(6) states that the following is not excluded by the hearsay rule:

A memorandum, report, record or data compilation, in any form, or acts, events, conditions, opinions, or diagnoses, made at or near the time by, or from information transmitted by, a person with knowledge, all in the course of a regularly conducted activity, as shown by the testimony of the custodian or other qualified witness, unless the sources of information or other circumstances indicate lack of trustworthiness.

\footnote{568} See note 573 infra.

\footnote{569} Proposed Federal Rules of Evidence 803(6).

\footnote{570} Id.

\footnote{571} This effect has been established by legislation in England. The Civil Evidence Act 1968, c. 64, § 5(3) states:

Where over a period the function of storing or processing information for the purposes of any activities regularly carried on over that period as mentioned in subsection (2)(a) above was regularly performed by computers, whether . . .

(a) by a combination of computers operating over that period; or
(b) by different computers operating in succession over that period; or
(c) by different combinations of computers operating in succession over that period; or
(d) in any other manner involving the successive operation over that period, in whatever order, of one or more combinations of computers, all the computers used for that purpose during that period shall be treated for the purpose of this Part of this Act as constituting a single computer . . .
ally observe the facts and report them to the entrant. But, if the statute were
construed broadly to include more than just first-cycle print-outs, it could be
argued that the informant was the merchant, who punched in the amount of the
sale. The merchant would become the one with personal knowledge of the
transaction, and the print-out would be admissible, provided that you could
also prove that it was the merchant’s duty to know the information in the ordi-
nary course of the card issuer’s business.

However, if a dispute arose over a cardholder’s account, involving a series
of transactions, it would clearly be impossible, no matter how far the chain is ex-
tended, to ever satisfy the personal knowledge requirement. Under these circum-
stances, the statute would render inadmissible evidence which is extremely reli-
able. For this reason it would be unwise for any state to follow the examples of
the Model Code of Evidence and the Proposed Federal Rules of Evidence.572

There appears to be no dispute that a print-out qualifies as a writing or
record.573 There remains one criticism that has been voiced of all the statutes,
_i.e._, the requirement that the record be made “at or near the time of the act,
condition or event. . . .”574 With computers, it may not be possible to fix the
date of entry of the transaction into the computer. As a result, it will be more
difficult to prove the difference in time from the date of the transaction to the
date of input into or output from the computer. Given this obstacle, it will be
almost impossible to prove that the date of the print-out was “at or near” the
time of the transaction. The reliability of the traditional record-keeping system
was based upon the verifiability of the memory of the human participant.575
Since it appears that computers are in fact more trustworthy,576 it would seem
logical that this vague statutory requirement would be fulfilled if the computer
input, rather than the print-out, occurred at or near the time of the transaction.
However, the statutes specifically state otherwise, and, as mentioned above, at
times it may be difficult to prove when the input occurred.

In _Transport Indemnity Co. v. Seib_,577 it was intimated that print-outs
would be admissible if it could be proved that inputs are made as a part of the
day-by-day operations of the record-making party.578 In the context of an
EFTS, problems arising out of the requirement of a timely recordation would be

572 The same result would obtain in Texas, which has not adopted either the Model Code
of Evidence or the Proposed Federal Rules of Evidence.
573 Although there are no cases directly on point, it has been held that no particular mode
or form of record is required by the Uniform Act. _Transport Indemnity Company v. Seib_,
178 Neb. 253, 132 N.W.2d 871 (1965). In addition, in the Model Act it is made even more
apparent by reference to the phrase “[any writing or record, whether in the form of an entry
in a book or otherwise” (emphasis added). Rule 1001(1) of the Proposed Federal Rules of
Evidence states that:

“Writings” and “recordings” consist of letters, words, or numbers, or their
equivalent, set down by handwriting, typewriting, printing, photostating, photograph-
ing, magnetic impulse, mechanical or electronic recording, or other form of data
compilation.

The Advisory Committee’s Note clearly indicates that this would include computers and other
modern developments.
574 UNIFORM BUSINESS RECORDS AS EVIDENCE ACT § 2.
576 Comment, _The Admissibility of Computer Printouts Under the Business Records Ex-
ception in Texas_, _supra_ note 551, at 299.
578 Id. at ...., 132 N.W.2d at 875.
negligible. It is a well-established accounting procedure for banking and other credit institutions to balance their accounts daily. When the use of on-line terminals becomes accepted, input will occur simultaneously with the transaction. It is only in those instances in which an institution transforms its traditional record-keeping system to a computerized one that it may be difficult to contend that the input occurred at or near the time of the transaction. For this reason, it seems necessary to amend the statutes to "bring the realities of business and professional practice into the courtroom."\(^{579}\) and to insure that a narrow interpretation of the statute would not "reduce sharply its obvious usefulness."\(^{580}\) By eliminating the requirement of timeliness for a reliable EFTS, it would be left up to the courts in their discretion to decide whether or not the reliability of the system justified its admission.\(^{581}\) The elapsed time between the transaction and input into or print-out from the computer would merely be one factor in the court's determination. And as the efficiency, accuracy and use of computers in the payments system become more common, perhaps the need to prove that input is part of the day-by-day operations of the recording party, as per Seib, will be obviated through the doctrine of judicial notice.\(^{582}\)

c. Case Law

The leading case on the admissibility of computer print-outs is *Transport Indemnity Co. v. Seib.*\(^{583}\) In that case the defendant, who operated a fleet of trucks in various states, was sued by an insurer for premiums claimed due under an insurance contract. To prove the amount of premiums due, the plaintiff sought to introduce into evidence an exhibit printed by electronic computing equipment and prepared by the director of accounting for the plaintiff. The director's testimony indicated that the figures reported and the computations made were accurate calculations within his personal knowledge. He gave extensive testimony in laying a proper foundation for admission of the print-outs. This satisfied the requirements that the custodian or other qualified witness testify to the identity and mode of preparation of the print-outs, that the print-outs be made in the usual course of the plaintiff's business, and that the record-keeping involved be an indispensable part of that business. And as previously mentioned, the court held that the reliability of the computer was not a factor to be considered in determining the admissibility of the print-outs. Rather, the objections to the identity and the mode of preparation were relevant only in considering the weight and credibility of that evidence.\(^{584}\)

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580 *Id.*
581 It has been suggested that an amendment need not delete anything and only add the following clause:

or, that it was the regular course of that business to cause such memorandum or record to be made automatically by a reliable automatic information processing system and it was so made by such system.

584 *Id.* at ...., 132 N.W.2d at 875.
In admitting the print-outs into evidence, the court construed Nebraska's Business Records as Evidence Act. In holding that the requirements of the statute had been satisfied, the court, quoting from Higgins v. Loup River Public Power District, said:

The purpose of the act is to permit admission of systematically entered records without the necessity of identifying, locating, and producing as witnesses the individuals who made entries in the records in the regular course of the business rather than to make a fundamental change in the established principles of the shop-book exception to the hearsay rule.

The computer performed the bookkeeping functions of the plaintiff. Loss information supplied by the defendant had been fed into the computer where it had been recorded and stored on tape. At any time the computer could have calculated the composite total of losses allocated to premiums and printed out the results. The director's testimony included a verification of the computer's calculations. Since the print-out involved no calculations other than those made prior to storage within the computer, it was clear that the print-out merely involved a change in the form of the record. The court was quite explicit in holding that no particular mode or form of the record was required by the statute.

In concluding that the "sources of information, method and time of preparation" justified admission, the court said: "The taped record furnished a cumulative record based on information flowing into the office of the plaintiff company day by day and fed into the machine in response to a systematic procedure for processing each insured's account."

Then, in response to the defendant's contention that the print-out was inadmissible because it was made for use at trial and not in the ordinary course of business, the court stated:

This argument exalts the form over the substance. The retrieval from the taped record (exhibit 14) was made for the purposes of the trial. But, the taped record and the information and calculations thereon were made in the usual course of business and for the purpose of the business alone. There is no merit to this contention.

Although this logic appears applicable to credit transactions, one must wonder if the result would have been the same if calculations independent of those already on tape had been necessary in order to produce the print-outs or if the witness called upon to lay a proper foundation was not a "custodian or other qualified witness." It would seem that as long as it could be proven that the use of computers was a part of its day-by-day operations, this should satisfy the element of unusual reliability upon which the business records exception to the

586 159 Neb. 549, 68 N.W.2d 170 (1955).
588 Id. at ......., 132 N.W.2d at 875.
589 Id.
590 Id.
hearsay rule is based. However, without testimony demonstrating the method and system in use, the internal checks and proofs, and other circumstances indicating trustworthiness, that evidence should be given little, if any, weight, at least until the scientific reliability of that computer system is judicially noticed.

The Seib rationale was followed in two Arizona decisions. In State v. Veres, a computerized statement of a bank account was sought to be introduced against a defendant criminally charged with passing NSF checks. The assistant cashier who testified had not prepared the bank records, nor had any knowledge of the mode of preparation or operational aspects of the machine. He identified the records of the account as that of the defendant and testified that checks are "encoded by machines" as a part of the normal course of business. The court held the evidence admissible under Arizona's version of the Uniform Business Records as Evidence Act, finding no abuse of the broad discretion vested in the trial court by the statute. The court did not confront the issue whether or not the assistant cashier was, in fact, a "custodian or other qualified witness." Nor was the mode of preparation ever established. While acknowledging that the cashier's testimony did not conform to the ordinary degree of care in laying a proper foundation, the court seemed to rely upon other sources of information to justify its admission. Perhaps this is an indication that as the reliability of computers becomes more apparent, the foundation necessary to establish the accuracy and reliability of that system will diminish.

In Merrick v. United States Rubber Co., a suit based upon a verified open account, the plaintiff sought to introduce electronically reproduced records as evidence of the account. It was shown that computer print-outs were used in a record-keeping capacity as part of the regular course of business. The defendant contended that a proper foundation had not been presented to justify the admissibility of the print-outs. The plaintiff called as a witness an employee of its credit department who was familiar with the account involved. This witness had no personal knowledge of the actual physical operation of the computer, but was generally familiar with this aspect of the plaintiff's accounting records. The court held that the foundation presented was adequate, again placing special emphasis upon the portion of the statute calling for the trial court's opinion as to admissibility. While analogizing the case to Veres, the court did note that in Seib a more meticulous foundation had been laid. Nevertheless, the court again

592 Id. at 117, 436 P.2d at 637.
596 The defendant had testified that:

[H]e knew that his bank account was not in good condition, that at the time of the writing of the checks he had requested that the checks be not negotiated because the bank had asked defendant to refrain from writing checks until the matter of his account had been straightened out, and that he had written checks to "cash" which were not honored.

598 Id. at ....., 440 P.2d at 317.
broadly applied the statute in approving the employee as a "custodian or other qualified witness."

The rationale of Veres and Merrick has been carried over into the federal system. The Fifth Circuit, in *Olympic Insurance Co. v. Harrison, Inc.*, 609 found no merit to the contention that computer print-outs, which had formed the basis of proof that the defendant had not paid over insurance premiums he had collected, were unreliable. During the trial, the defendant had failed to raise any specific objections to the accuracy and reliability of the print-outs. On the other hand, the print-outs were shown to have been produced in the regular course of business. In the light of these circumstances, the court decided that the discretion vested in the district court by the Federal Business Records as Evidence Act 609 established a prima facie aura of reliability, and held that the print-outs were properly admitted. 601

The Ninth Circuit followed this trend in *United States v. De Georgia*. 602 There the court admitted into evidence computer print-outs to prove that no transaction had been recorded, since the transaction was of the type that, if it had occurred, would have been recorded in the regular course of business. The defendant did not contest the fact that the records admitted were produced in a computer system rather than in a traditional record-keeping system. However, the court did point out:

> While... it is immaterial that the business record is maintained in a computer rather than in company books, this is on the assumption that: (1) the opposing party is given the same opportunity to inquire into the accuracy of the computer and the input procedures used, as he would have to inquire into the accuracy of written business records, and (2) the trial court, as in the case of challenged business records, requires the party offering the computer information to provide a foundation therefore sufficient to warrant a finding that such information is trustworthy. 603

The opinion seems to indicate that if the defendant does not raise any objections to the foundations laid, the evidence would be admissible. However, since it is the court's duty to determine whether or not the computer performs with accuracy and reliability, the burden of establishing a proper foundation should rest upon the one seeking to introduce that evidence, whether or not it is objected to by an opposing party.

In states adhering to the common law shop-book rule, *King v. State ex rel. Murdock Acceptance Corp.* 604 should provide a valuable precedent. 605 King was

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599 418 F.2d 669 (5th Cir. 1969).
602 420 F.2d 889 (9th Cir. 1969).
603 Id. at 893 n.11.
604 222 So. 2d 393 (Miss. 1969).
605 Kentucky has accomplished this without reliance upon King. In *Brown v. Commonwealth*, 44 S.W.2d 520, 524 (Ky. 1969), the court, in a cursory fashion, admitted computer records under the common law shop-book rule. In justification the court said:

The witness was the supervisor of the district in which the records were made in the normal course of business through an intricate computer process. As noted in *Time Finance Company v. Beckman*, Ky., 295 S.W.2d 345, 349, the "shopbook rule" is well-established in this jurisdiction. The records presented were admissible pursuant to that rule.
sued on a false notarial certificate of acknowledgment to a deed of trust. In order to prove the balance due on certain conditional sales contracts, Murdock introduced both the original contracts and computer print-outs showing the complete record of each account. In order to lay a foundation, Murdock's Accounting Manager, who was in charge of the data processing department, testified that information regarding every transaction was recorded on tape and stored in the computer daily in the ordinary course of business. He displayed a knowledge of the computer's operation, including error-detection procedures, and admitted that although he had no personal knowledge of the particular account here, employees under his supervision did have such knowledge. The court noted that the shop-book rule had been extended to include situations where personal knowledge of the transaction recorded did not lie in the entrant but in those who had supplied the information to him in the regular course of business.  

After rejecting an argument that the print-outs did not constitute the best evidence, the court concluded that it should adopt the common law rule to accommodate the changes involved in electronic data processing:

[T]his Court is not dependent upon legislative action to determine the question before us. The rules of evidence governing the admission of business records are of common law origin and have evolved case by case, and the Court should apply these rules consistent with the realities of current business methods.

The court appeared extremely conscious of the progress made in increasing computer reliability, citing section 609 of Jones on Evidence, which states that "[T]he scientific reliability of such machines, in the light of their general use and the general reliance of the business world on them, can scarcely be questioned."

In applying the shop-book rule to computer print-outs, the court dispensed with the necessity of identifying, locating, and producing as witnesses everyone who participated in the entry in the regular course of business, if proof was offered:

(1) that the electronic computing equipment is recognized as standard equipment, (2) the entries are made in the regular course of business at or reasonably near the time of the happening or event recorded, and (3) the foundation testimony satisfies the court that the sources of information, method and time of preparation were such as to indicate its trustworthiness and justify its admission.

It is noteworthy that the court referred to "entries" rather than "record" or "writing" in the second requirement. This choice of terminology can be viewed

606 King v. State ex rel. Murdock Acceptance Corp., 222 So. 2d 393, 397 (Miss. 1969), citing Grenada Compress Co. v. Atkinson, 94 Miss. 93, 47 So. 644 (1908).
607 Id. at 398.
608 Id. at 397.
609 Id. at 398.
611 King v. State ex rel. Murdock Acceptance Corp., 222 So. 2d 393, 398 (Miss. 1969).
as an implicit refutation of the argument that print-outs are inadmissible because they are especially prepared for trial.

d. Unresolved Issues and a Suggested Approach

It is not clear from *King* whether common law jurisdictions will admit evidence upon the less adequate foundations laid in *Veres* and *Merrick*. In addition, several issues have not been presented in any of the cases that might merit future consideration. For example none of the cases have dealt with the difficulty in laying a proper foundation to demonstrate the reliability of a computer that arrives at a complex, independently contrived conclusion not verifiable by examination of the input.612 Cases to date have involved print-outs that only store input and consolidate items at the time of output. In an EFTS, computers will be required to make interpretive evaluations in areas such as credit ratings and investment securities.613 The reliability of these value judgments will obviously be more difficult to establish. No case has specifically eliminated the personal knowledge requirement in a completely automated system. No case has judicially noticed the scientific reliability of computers. None have construed the Model Act to apply to computer print-outs. No criminal case has decided whether or not the admission of print-outs would violate the confrontation or due process clauses of the Constitution.614 It is often quite difficult to lay the proper foundation or to prove that the party testifying is a custodian or other qualified witness.

A Less-Check context might not provide a forum for raising all of the above issues, since the use of computers is not unique to the payments system. But it will probably be in light of the broader scope of computer use contemplated by the EFTS that the common law and the statutes will be tested. However, for the present it appears that, in addition to proving literal compliance with the statutory requirements, the laying of a proper foundation still serves two necessary functions. First, to establish the identity and mode of preparation, computer reliability must be established in order to gain admissibility. Second, the extent of the foundation will, after admission, bear upon its weight and credibility.

Florida and Iowa have amended their statutes to include within their exceptions to the hearsay rule a record kept by means of electronic data processing.615 Other states are presented with two viable alternatives. Either their legislatures can follow the examples of Florida and Iowa by amending their statutes to conform to the practicalities of computer use or their courts can declare that since their statutes were enacted to apply only to traditional record-keeping systems, computer print-outs do not fall within the ambit of the statutes. This

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613 See note 470 *supra*.


would allow states to utilize the flexibility afforded them by the common law, as
in King, rather than to stretch statutory language to absurdity by judicial inter-
pretation.

3. Best Evidence Rule

Even if computer print-outs qualify for admission as an exception to the
hearsay rule, an objection may be raised that the print-out does not constitute the
best evidence. The best evidence rule requires that to prove the contents of a
writing, you must produce the original, unless its unavailability can be explained
satisfactorily. Its justification lies in the importance accorded to precision and
the corresponding risk of inaccuracy or misstatement if a copy or oral testimony
is introduced in place of the original.

Even though a print-out would qualify as a “writing” or “record” under
modern definitions, there remains the objection that a print-out is merely a
copy of the original record stored within the computer. Historically, the best
evidence rule has generated a number of exceptions which might be applicable
to computer print-outs. One exception would be that if the original writings are
too numerous to produce, or so complicated that their production would only
confuse the jury, a summary or extract, such as a print-out, would be admissible
in its place, within the court’s discretion. A second applicable exception
excuses nonproduction when the original records have been lost or destroyed
with no fraudulent intent on the part of the party introducing the evidence.

This exception could be construed to include the destruction of input by com-
puters in the ordinary course of business.

As improvements to the payments mechanism develop, the use of the sales
slip as a record of the computerized transaction will likely disappear. Neither
case law definitions nor statutory formulations of the best evidence rule seem to
present any appreciable difficulties to admitting print-outs of these transactions.

In Seib, the court seemed unconcerned whether the print-out was an original
record or a copy of the original claim files and reports. In King, the court was
more explicit in its acceptance of the print-out as the best evidence:

Records stored on magnetic tape by data processing machines are
unavailable and useless except by means of the print-out sheets such as those
admitted into evidence in this case. In admitting the print-out sheets re-

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616 C. McCormick, supra note 531, at § 196.
617 Id. at § 197.
618 Uniform Rule of Evidence 1(13) states:
“Writing” means handwriting, typewriting, printing, photostating, photograph-
ing and every other means of recording upon any tangible thing any form of
communication or representation, including letters, words, pictures, sounds, or symbols,
or combinations thereof.

620 See Uniform Rule of Evidence 70(1)(a); Proposed Federal Rules of Evidence
1004(1); Comment, Authentication and the Best Evidence Rule under the Federal Rules of
621 Transport Indemnity Company v. Seib, 178 Neb. 253, ......, 132 N.W.2d 871, 875
(1965).
reflecting the record stored on tape, the Court is actually following the best
evidence rule. We are not departing from the shop book rule, but only
extending its application to electronic recordkeeping.622

A majority of states622 have enacted the Uniform Photographic Copies of
Business and Public Records Act, which provides for the admissibility of re-
produced records or copies if made during the regular course of business “by any
photographic, photostatic . . . or other process which actually reproduces or forms
a durable medium for so reproducing the original . . . .”623 If interpreted
broadly, this statute would permit print-outs to be introduced under the best
evidence rule whether or not the original still exists, provided that the original
would have been admissible.625

In addition, the Proposed Federal Rules of Evidence present the most
comprehensive solution to the problem posed by the best evidence rule. The
definition in Rule 1001 makes it clear that, if a proper foundation is laid to
show that the print-out is made within an accurate and reliable system, the
print-out will be considered an original writing or recording.626 Consequently,
under these proposed rules, no difficulty should be encountered in admitting
print-outs over best evidence objections.

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623 Alabama, Alaska, Arkansas, California, Colorado, Connecticut, Delaware, Florida,
Georgia, Hawaii, Idaho, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan,
Minnesota, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New
York, North Carolina, North Dakota, Oklahoma, Pennsylvania, South Dakota, Utah, Vermont,
624 The Act reads:

If any business, institution, member of a profession or calling, or any department
or agency of government, in the regular course of business or activity has kept or
recorded any memorandum, writing, entry, print, representation or combination there-
of, of any act, transaction, occurrence or event, and in the regular course of business
has caused any or all of the same to be recorded, copied or reproduced
by
photographic, photostatic, microfilm, micro-card, miniature photographic, or other process
which accurately reproduces or forms a durable medium for so reproducing the orig-
inal, the original may be destroyed in the regular course of business unless held in a
custodial or fiduciary capacity or unless its preservation is required by law. Such
reproduction, when satisfactorily identified, is as admissible in evidence as the original
itself in any judicial or administrative proceeding whether the original is in
existence or not and an enlargement or facsimile of such reproduction is likewise
admissible in evidence if the original is in existence and available for inspection under
direction of the court. The introduction of a reproduced record, enlargement or
facsimile, does not preclude admission of the original.

625 Id.
626 Rule 1001(3) states:

An “original” of a writing or recording is the writing or recording itself or any
counterpart intended to have the same effect by a person executing or issuing it. An
“original” of a photograph includes the negative or any print therefrom. If data are
stored in a computer or similar device, any printout or other output readable by sight,
shown to reflect the data accurately, is an “original.”

In conjunction, the Advisory Committee’s Note to Rule 1001(3) explains:

In most instances, what is an original will be self-evident and further refinement
will be unnecessary. However, in some instances particularized definition is required.
A carbon copy of a contract executed in duplicate becomes an original, as does a
sales ticket carbon copy given to the customer. While strictly speaking the original
of a photograph might be thought to be only the negative, practicality and common
usage require that any print from the negative be regarded as an original. Similarly,
practicality and usage confer the status of original upon any computer printout.
The growth in consumer installment credit in the past two decades has been accompanied by a corresponding consolidation and organization of information through the use of highly sophisticated computer devices. The implementation of credit card plans saw the development of credit reporting agencies whose sole purpose was to collect data on an individual's financial status and personal life. Once information was provided there was no assurance that it would be used only for the purpose for which it was submitted. On the contrary, a system of cooperation developed among the various credit bureaus whereby access to records was quite easily obtained by subscribers, employees, police and federal investigators, not always for legitimate business purposes, however. When an individual was denied credit, usually no reason was supplied for the rejection. Whether or not the denial was based upon an inaccuracy or an omission in the dossier would not be known to the individual because ordinarily, even if aware of the existence of a record, he could not obtain access to it. As computers become more widely used, a number of revolutionary effects will be evidenced. First, the collection, storage and use of detailed information will be much more efficiently accomplished. Second, the use of computers will result in the collection of more information at a substantially reduced cost.

The new communications-information technology being developed has begun to generate arguments about whether the constitutional right of privacy will be adequately safeguarded. Until now, the information provided by credit bureaus has not provoked these fears since previous invasions of the right to privacy have been relatively small in dimension. Several reasons account for this:

1. large quantities of information about individuals have not been collected and therefore have not been available;
2. the available information generally has been maintained on a decentralized basis;
3. the available information has been relatively superficial in character and often has been allowed to atrophy to the point of uselessness;
4. access to the available information has been difficult to secure;
5. people in a highly mobile society are difficult to keep track of; and
6. most people are unable to interpret and infer revealing information from the available data.

As we have seen, the entire consumer credit system seems to be undergoing a radical change. Financial institutions have begun to replace retailers in the credit industry. The far-reaching impact of the "money card" will permit a consumer to handle all credit sales with his bank. Credit investigations need not be made for each transaction. The bank will have to make an investigation only when a customer opens an account. As each transaction for credit occurs, the on-line terminal will be connected through the clearinghouse centers to the

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627 Hearings on S. 823 Before the Subcomm. on Invasion of Privacy of the House Comm. on Government Operations, 90th Cong., 2d Sess. 3 (1968).
629 Karst, supra note 501, at 360.
630 E. Weiss, supra note 310, at 62.
632 Karst, supra note 501, at 375.
individual bank’s computer which, after proper identification, will either authorize or reject the extension of credit on the basis of stored financial and personal information. This record will certainly be more detailed and thorough than is presently possible. If a consumer changes his account to another bank, the information will be transmitted to the new bank from the old one. As a result, access to information will be more easily controlled; however, problems may still arise concerning access and accuracy of records—problems that threaten to destroy an individual’s right to keep his business to himself. Before we evolve into a one-card system decisions must be made concerning how individuals are to be credit-rated, how far an individual’s private finances can be regulated, and how abuses of that credit-rating system can be prevented.

To prevent the use of the computer from becoming an instrument suppressing man’s individual freedom, precautions will be necessary to eliminate the risk of the system’s misuse. Generally the most significant dangers that must be considered have been developed under the following four classifications:

(a) Input, storage and delivery of erroneous information, whether (i) incorrect or misleadingly incomplete factual material, or (ii) wholly or partly erroneous or misleading opinions, deductions or classifications, based on such material, or arrived at mistakenly or misguided, or involving some wrong or misleading categorization or generalization without requisite qualifications.

(b) Misuse of information by persons owning or employed to work the computer system, e.g., disclosure to unauthorized persons.

(c) Deliberate or accidental extraction or use of information by outsiders not intended to have or use it.

(d) Invasion of privacy, i.e., collection, collation, dissemination and use of information which the ordinary person now considers to be nobody’s business but his own, and wide dissemination and use of information which ought to be disclosed only to a few.

The most serious problem in the past concerning inaccuracy has been discovering the inaccuracy itself. Even when this was possible, it appeared that an individual victimized by misinformation had little, if any, remedial action at his disposal. Mistakes in input, storage, or delivery of information appear to have been covered by the laws of defamation and negligence. However, the doctrine of qualified privilege had been applied in libel suits where credit bureaus provided erroneous information to subscribers who had legitimate business interests at stake. The privilege was only overcome by a showing of malice.

633 Id. at 375-76.
634 News Front, May 1968, at 30, 32.
635 Campbell & Woods, supra note 628, at 5.
or conscious indifference and reckless disregard for an individual's rights. In addition, the privilege could have been vitiated by a showing that the particular subscriber did not have a legitimate business interest in the report or if it was released to the general public.

When computerized credit rating procedures are used by banks participating in an EFTS, the qualified privilege will be extremely difficult to overcome. The burden of proving malice will be nearly impossible, and any retailer with an on-line connection with the bank through the clearinghouse would certainly be an interested subscriber.

In an EFTS, the doctrine of negligent misstatement could impose liability on banks and other participants in the system if erroneous information was fed into or printed out of a computer due to the bank's failure to exercise reasonable care in operating the system. Most jurisdictions, however, have not adopted this theory as a basis of liability for inaccuracies in credit information.

In addition to the risk of inaccuracy several other problems would be magnified in an EFTS if only common law remedies were available. For instance, as computers become more complex and bank services are expanded, computers will be able to make evaluative judgments based upon stored information as well as direct feedbacks or compilations. How could the opinion of a computer be faulted? Even if a consumer tested the computer's judgment in court, it seems that he would have an inordinate burden placed upon him in order to prove liability. No action would be likely to succeed unless a presumption that the computer was misguided in its evaluation is established in favor of the consumer. That same presumption would also have to be applied when erroneous factual material was transmitted by a bank operating within an EFTS.

In like manner, access to information has been relatively easy to accomplish for anyone except the consumer. In an EFTS computer time and stored information could be shared with nonmembers of the system since the need for information would put economic pressure on banks to centralize all data in a storage area accessible to anyone who has access to the computer. In addition, the computer could probably be tapped just like a telephone is today. In those cases, the constitutional protection of privacy afforded individuals in wiretapping and electronic eavesdropping cases under the fourth amendment would appear to be applicable. However, a more difficult problem concerns the invasion of

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640 If a subscriber with a legitimate business interest obtains the information and transfers it to disinterested third parties, the credit bureau has not been held liable. Peacock v. Retail Credit Co., 302 F. Supp. 418 (N.D. Ga. 1969).
642 Id. at 361.
privacy by unauthorized disclosure of private facts. An action developed in tort whereby liability has been based upon publication of highly objectionable private facts. To establish a prima facie case, the disclosure had to be public. Communication of facts to an employer, or to an individual or small group of people would not amount to an invasion of privacy. The facts disclosed had to be private facts, and the facts published had to be objectionable to a reasonable man. In an EFTS, stored information would be available to the public at large, but dissemination of it to lenders would probably not amount to a public disclosure. Even if publication was established, investigations of credit would be protected if they were reasonable.

The inadequacy of common law remedies, the development of constitutional protection of the right to privacy for intrusive invasions, the realization that computerization in credit reporting offers a vast potential for abuse, and the mounting public concern for regulation, prompted Congress in 1970 to pass the Fair Credit Reporting Act. The Act was designed to regulate the consumer reporting industry by requiring consumer reporting agencies to adopt reasonable procedures to assure the confidentiality, accuracy and the proper use of information. It applies to any information, personal or otherwise, collected by banks, credit card companies, and other credit reporting agencies. The Act limits "consumer reports" to communication of information to third parties. With respect to computer equipment:

Consumer reporting agencies employing automatic data processing equipment, particularly agencies that transmit information over distance by any mechanical means, must exercise special care to assure that the data is accurately converted into a machine-readable format and that it is not distorted as a result of machine malfunction or transmission failure. Procedures also must be adopted that will provide security for such systems in order to reduce the possibility that computerized consumer information will be stolen or altered, either by authorized or unauthorized users of the information system.

Consumer reporting agencies are required to keep their files current. Upon request, a consumer must generally be given access to everything in his file, including the sources of the information. If facts are disputed, the consumer reporting agency is required to reinvestigate the information, unless the agency has reasonable grounds for believing the dispute to be frivolous or irrelevant. An important provision refuses access to governmental agencies of

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647 Id.
648 Id.
649 Division of Special Projects, Bureau of Consumer Protection, Federal Trade Commission, Compliance with the Fair Credit Reporting Act, at 8.
651 Id. § 1681 (g).
652 Id. § 1681 (i).
all but identifying information except where the government agency seeks the
information for one of the permissible purposes listed under the Act. 553

The Act requires that whenever an adverse credit report is the basis for a
denial of credit, the consumer must be made aware of the nature and substance
of the information which acts as the basis for denial and the identity of the source
of the information, if it be a credit reporting agency. 554 In addition, consumer
reporting agencies must inform consumers of the existence of investigative reports,
\textit{i.e.}, those depicting character, mode of living, personal characteristics and reputation,
secured from interviews with friends, neighbors, and relatives and must inform
the consumer of his right and comply with his request that the information
be disclosed. 555

Compliance with the FCRA is to be enforced by the Federal Trade Com-
mision. Criminal sanctions are provided for both obtaining information about
a consumer under false pretenses from a consumer reporting agency 556 and for
any disclosure by an employer of a consumer reporting agency to a person un-
authorized to receive the information. 557 Civil liability is imposed if a consumer
can prove willful 558 or negligent 559 noncompliance with the provisions of the
statute. Most importantly, the act provides, in substance, that:

\begin{quote}
A consumer reporting agency, any user of information, or any person
who supplies information will not be subject to a consumer's civil action
for defamation or invasion of privacy based upon information disclosed to a
consumer pursuant to the Act, unless the information is false and furnished
with malice or willful intent to injure such consumer or furnished negli-
gently in noncompliance with the Act. However, if the consumer also obtains
the information independently of the agency disclosures, such actions may
be brought. 560
\end{quote}

The FCRA as an attempt to provide viable consumer protection will have
a substantial effect upon the consumer credit industry. However, the Act does
not limit the kind of information that can be gathered or reported. It does not
allow consumers to physically see and possess a copy of their file. It merely
requires the consumer reporting agency to disclose the contents of the file. It
appears that the consumer still bears an inordinate burden of insuring com-
pliance within the industry, as well as proving noncompliance when it occurs. 661

Despite these problems, there is much to be said for the FCRA in its
attempt to create a uniform standard of protection for consumers. Consumer
credit on a large scale is a creature of our times. If an EFTS is to operate

\begin{flushright}
653 \textit{Id.} \textsection1681 (f).
654 \textit{Id.} \textsection1681 (m).
655 \textit{Id.} \textsection1681 (d).
656 \textit{Id.} \textsection1681 (q).
657 \textit{Id.} \textsection1681 (r).
658 \textit{Id.} \textsection1681 (n).
659 \textit{Id.} \textsection1681 (o).
660 Division of Special Projects, Bureau of Consumer Protection, Federal Trade Commission,
Compliance With the Fair Credit Reporting Act, at 28.
661 Note, \textit{Consumer Protection: Regulation and Liability of the Credit Reporting Industry},
47 \textit{Notre Dame Lawyer} 1291 (1972).
\end{flushright}
functionally and efficiently, banks and other credit lending institutions will have to assure the consumer that credit reporting can be accomplished with a minimum risk of inaccuracy, a maximum right of access, and a corresponding guarantee that irrelevant personal information will not be collected or released. In this respect the FCRA is a step in the right direction. For without these assurances, banks and other institutions participating in an EFTS might find consumer approval of the system an imposing, if not insurmountable barrier.

VI. Conclusion

This survey has described the trends leading toward a Less-Check Society and the problems which will confront that society. It has described the pressures militating for a change in our present check payments system, traced the evolution of the credit card industry as a transitional bridge between the two systems, and, finally, discussed the problems to be resolved before such a system can become a reality.

The principal pressure militating for change has been cost. As the flood of paper characteristic of our check payments system has continued to increase, the incentive has become greater to develop some alternative to that expensive and inefficient system. For the time being, this pressure has been alleviated somewhat by the development of MICR encoding which allows faster, less expensive processing of checks. That is, however, but a short-range solution, providing breathing space before the growing avalanche of paper.

The credit card revolution, beginning in the 1960's and continuing today, will provide the bridge spanning the check and the "money card" payments systems. Its contribution to the concept of electronic funds transfer has been threefold: (1) it has accustomed the consumer to computer finance; (2) it has made him conversant with card (as opposed to check) payment; and (3) it has established some of the legal, economic, and technological groundwork upon which the Less-Check concept can build.

That concept, technologically feasible today, will probably evolve slowly because of the various consumer, business, and legal problems which remain to be solved. The main consumer problem will be one of acceptability. An EFTS utilizing computers, money cards, and a nationwide clearinghouse is, after all, a rather extreme departure from the personal check. Congress is preparing for the transition by proposing and enacting sensible measures designed to remove some of the burdens of computer finance. These measures have gone a long way toward making the credit card safe and convenient and should help promote acceptance of the "money card." The main obstacle to Less-Check acceptability remains the popularity of the check, a factor which only time and increased use of the credit card can overcome.

The major business problems are the initial investment which such a change-over will entail and the high volume of business necessary to support the system. Technology does not appear to be a problem. Current industry developments including project SCOPE, preauthorized payment plans, the ITS, touch tone telephones and others indicate that, when the ultimate change-over becomes
necessary, the technological groundwork will have been laid. Indeed, most of the components of the Less-Check Society will be in experimental use in various parts of the country during the coming year. The cost of the technology is the main problem. A relatively large fixed cost expenditure requiring a significant volume to ensure economic feasibility will be required initially. If present trends continue, however, this cost problem should ultimately solve itself. The banks will invest in an EFTS when the cost of running the check payments system becomes too great. As the use of checks continues to grow, the cost of processing them will continue to increase. Ultimately, the point will be reached when the initial Less-Check investment will be practical; at that time, the change will be made.

The legal problems are more complex, but it appears that the existing legal structure is sufficiently flexible to facilitate the change. One of these problems is evidentiary—the validity of computer print-outs as evidence. Its solution seems to lie in a simple process of modernization of statutory law, most of which dates back to before the development of the computer. A highly integrated electronic funds transfer system will also pose antitrust problems (monopoly, concerted refusal to deal, and tie-in agreements). The establishment of a policy of free access and of open competition between banks and nonbanking credit institutions should provide an adequate solution, however. The system will pose problems in the area of commercial law, but the Uniform Commercial Code, if supplemented to include electronic credit transfers, would be sufficiently flexible to cover whatever problems might arise. And, finally, a national clearinghouse with a massive accumulation of personal credit information will pose problems of privacy for the consumer. The law must work toward limiting access to and preventing leaks of this information.

Any attempt to visualize future events necessarily results in a rather indefinite outline. Our outline envisions a combination check-electronic payments system, i.e., both the check and the money card will exist simultaneously in the Less-Check Society (just as currency continues to exist with the check in our current payments system). The change will be gradual. As regional systems of electronic funds transfer develop and eventually link with one another to provide a national communication system, fewer and fewer payments will be made by check. The Less-Check Society will be more efficient and less costly, but, like any revolutionary change, it involves a value judgment. The system will be mechanical and impersonal. It will involve a considerable savings to the banking industry and, perhaps, to the consumer who will receive faster service, but at the cost of some of his privacy. The benefits will be institutional and the defects personal. However, if a judgment need be made, it must be in favor of change, a change made inevitable by the apparent inadequacy of the present check payments system to meet our future needs. The Less-Check Society presents a viable alternative to that inadequacy and is, in our opinion, the answer.

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